FIGHTING BID RIGGING IN PUBLIC PROCUREMENT IN MEXICO



Fighting Bid Rigging in IMSS Procurement: Impact of OECD Recommendations

2018







Fighting Bid Rigging in IMSS Procurement: Impact of OECD Recommendations

A report by the OECD Secretariat



Please	cite	this	nub	lication	as:
ııcasc	CILE	นแจ	pub	ııcatıcı	as.

OECD (2018) Fighting Bid Rigging in IMSS Procurement: Impact of OECD Recommendations.

This work is published under the responsibility of the Secretary-General of the OECD. The opinions expressed and arguments employed herein do not necessarily reflect the official views of the OECD or of the governments of its member countries or those of the European Union.

This document and any map included herein are without prejudice to the status or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city, or area.

The OECD has two official languages: English and French. The English version of this report is the only official one.

© OECD 2018

Foreword

Robust public procurement policies aim to achieve value for money. Governments across the OECD are determined to design public procurement procedures that promote competition and reduce the risks of bid rigging among bidders. The OECD Recommendation of the Council on Fighting Bid Rigging in Public Procurement and the Guidelines that this Recommendation includes are pioneering instruments to help countries in achieving those goals.

The OECD has been working closely with governments and public bodies to encourage and facilitate the implementation of its Recommendation and Guidelines. Against this background, Mexico has partnered with the OECD to improve its procurement practices and step up its fight against bid rigging.

In 2011, IMSS was the first public agency in Mexico (and the world) to formally request an OECD review into its internal procurement regulations and practices in light of the OECD Guidelines. This review culminated into more than 20 recommendations to IMSS on how to improve procurement procedures to avoid collusion among suppliers.

In 2016, IMSS invited the OECD to assess the status and implementation of the 2011 recommendations and to analyse their impact on procurement outcomes. This follow-up review is a testament to IMSS's strong commitment to tackle bid rigging in its procurement.

The majority of the 2011 OECD recommendations have been - fully or partly implemented, bringing favourable procurement outcomes and benefits to IMSS. Based on its findings, this report also outlines actions that IMSS can follow to implement any unadopted recommendations and further improve its procurement practices.

The implementation of the suite of – past and new – recommendations together with the increased awareness among IMSS' procurement officials of the costs and risks of collusion will help IMSS to increase the effectiveness of its procurement strategy to the benefit of IMSS's beneficiaries and Mexican taxpayers. The savings generated by successfully combating bid rigging can be used by IMSS to offer increased and improved services.

Acknowledgments

This report was prepared by Matt Tavantzis, Project Leader and Competition Expert, and Iratxe Gurpegui, Darcia Datshkovsky Sáenz and Carolina Abate, Competition Experts at the Competition Division of the Directorate for Financial and Enterprise Affairs of the OECD. Valuable comments to the report were provided by Antonio Capobianco, Senior Competition Expert, and Despina Pachnou, Competition Expert, at the OECD Competition Division.

The OECD expresses its gratitude to IMSS for its co-operation, commitment and support during this project. In particular we are thankful to: Tuffic Miguel Ortega, Director General; Mikel Arriola Peñalosa, former Director General; Joanna Cristo Aguirre, Director of Strategic Institutional Planning; Ricardo Humberto Cavazos Cepeda, former Director of Strategic Institutional Planning; Héctor Francisco Fernández Carpio, former advisor in the Directorate for Strategic Institutional Planning; María José Domínguez Ferrer, Technical Coordinator of International Cooperation; Liliana Jiménez Alcocer, former Technical Coordinator of International Cooperation; Norma Gabriela López Castañeda, Administration Director; Patricio Caso Prado, former Administration Director; María del Pilar Buerba Gómez, Supply Control Coordinator; Ángel Issac Avelino Acosta, Analysis and Process Tracking Technical Coordinator; Sergio Israel Cruz Rodríguez, Head of the Division for Technical and Advisory Support; Emmy Loou Vázquez Torres, Investment Goods and Assets Procurement Technical Coordinator; María Fernanda Vázquez Domínguez, Head of the Division for Tracking and Planning; Ángela Abigail Cruz Cedillo, Advisor in the Investment Goods and Assets Procurement Technical Unit; Horacio Martínez Cuazitl, Head of the Market Research Division; Joel Mauricio Vega Vilchis, Market Research Advisor; José Manuel Rivas Ochoa and Oliver Chavarría Iñiguez, former Market Research Coordinators. We also thank representatives from the Directorate for Digital Services and Administration, the Legal Division, the Medical Benefits Directorate, and Ciudad de México Norte and Ciudad de México Sur delegations.

Information and comments obtained from stakeholders were key to this project. In particular, the OECD is grateful for inputs received from the Ministry of Public Administration (Secretaría de la Función Pública), the Ministry of Public Health (Secretaría de Salud), and the Mexican Federal Commission for the Protection against Sanitary Risk (Comisión Federal para la Protección contra Riesgos Sanitarios, COFEPRIS). The OECD would also like to convey its thanks to representatives from the National Association of Medicine Manufacturers (Asociación Nacional de Fabricantes de Medicamentos, ANAFAM); the National Association of Health Input Distributors (Asociación Nacional de Distribuidores de Insumos para la Salud, ANDIS); the Mexican Association of Industries for Pharmaceutical Research (Asociación Mexicana de Industrias de Investigación Farmacéutica, AMIIF); the Confederation of Chambers of Industry of Mexico (Confederación de Cámaras Industriales, CONCAMIN); and consulting firm Aklara.

Consultants to the OECD Eduardo González Pier, Mariana Barraza Llórens and Hector Pena provided input and comments to the report. Useful comments were also provided by Sonia Araujo and Lisa Meehan, OECD Economics Department; Agnès Couffinhal, Cristian Herrera and Valerie Paris, OECD Health Division; and Mattieu Cahen and Kenza Khachani, OECD Public Governance Directorate.

This review also incorporates contributions from the Mexican Competition Authority (COFECE). Special thanks to President Commissioner Alejandra Palacios Prieto, Deputy Director General of International Affairs Carolina Garayzar and Director General for Planning and Evaluation José Nery Pérez Trujillo for their contribution to this project.

It also benefited from inputs and exchanges during four OECD workshops on fighting bid rigging for IMSS officials, which were held 17-27 April 2018 in Mexico City. The OECD is grateful to all participants in those workshops, as well as Jonathan Azahel Carmona Carmona and Brissia Arellano Rubio, advisors to the Division of Multilateral Affairs, for their support in organising and carrying out the workshops. Special thanks to the expert speakers who participated in the workshops: Francisco Téllez García, Director General of Cartels at COFECE; Andrea Marván Saltiel, Deputy Director General of Staff at the Investigative Unit at COFECE; María José Contreras, Deputy Director General of Competition Advocacy at COFECE; Guillermo Perez Cedeño, Director of Cartels at COFECE; Rodrigo Ríos, Director at the Deputy Directorate of Regulatory Analysis at COFECE; Eugenio Ruiz-Tagle Wiegand, Deputy Chief at the Anti-Cartel Unit at the National Economic Attorney's Office in Chile; Juan Pablo Herrera Saavedra, Co-ordinator of the Economic Studies Group at Commerce and Industry Superintendence in Colombia; and senior competition consultant Ian Nielsen-Jones.

The opinions expressed in the report do not necessarily reflect the views of the abovementioned organisations or individuals.

Ambassador Mónica Aspe and Maya Alejandra Camacho Dávalos, Second Secretary at the Permanent Delegation of Mexico to the OECD, were instrumental in supporting this project.

The report was edited by Matt Tavantzis. It was edited for publication by Tom Ridgway and prepared for publication by Erica Agostinho, Communications Assistant at the OECD Competition Division. Paulina de la Vega translated the report into Spanish, Darcia Datshkovsky edited the Spanish version with the help of Viviana Patiño.

Table of contents

Part I. Introduction and overview	Abbreviations and acronyms	13
1. Introduction and scope of the report 2 1.1. OECD's work on bid rigging 2 1.2. The OECD study in 2011 2 1.3. Scope and motivation of current study 2 Notes 3 References 3 2. Overview of IMSS and its legal and operational procurement framework 3 2.1. Overview of IMSS 3 2.2. General framework for public procurement 3 2.3. Overview of IMSS's public procurement 4 2.4. Developments since 2012 4 Notes 5 References 5 Part II. Assessment of the implementation of OECD recommendations for fighting bid rigging 6 3. Further opportunities to exercise buyer power 6 3.1. Centralisation of IMSS's local purchasing 6 3.2. Joint procurement with other government agencies 7 3.3. Use of multi-year tenders 7 3.4. Facilitating new suppliers' participation in tenders 8 3.5. Recommendations for action 8 Notes 9 4.1. Co-ordination with SFP and COFECE and adoption of best practices 9 4.2. Promotion of best practices and standardisation of documents	Executive summary	17
1.1. OECD's work on bid rigging 2 1.2. The OECD study in 2011 2 1.3. Scope and motivation of current study 2 Notes 3 References 3 2. Overview of IMSS and its legal and operational procurement framework 3 2.1. Overview of IMSS 3 2.2. General framework for public procurement 3 2.3. Overview of IMSS's public procurement 4 2.4. Developments since 2012 4 Notes 5 References 5 Part II. Assessment of the implementation of OECD recommendations for fighting bid rigging 6 3. Further opportunities to exercise buyer power 6 3.1. Centralisation of IMSS's local purchasing 6 3.2. Joint procurement with other government agencies 7 3.3. Use of multi-year tenders 7 3.4. Facilitating new suppliers' participation in tenders 8 3.5. Recommendations for action 8 Notes 9 4.1. Co-ordination with SFP and COFECE and adoption of best practices 9 4.1. Co-operation of best practices and standardisation of documents and procedures 9 4.3. Recommendations f	Part I. Introduction and overview	23
1.2. The OECD study in 2011	1. Introduction and scope of the report	25
1.2. The OECD study in 2011	1.1. OECD's work on bid rigging	27
1.3. Scope and motivation of current study		
References	1.3. Scope and motivation of current study	29
2. Overview of IMSS and its legal and operational procurement framework 3 2.1. Overview of IMSS 3 2.2. General framework for public procurement 3 2.3. Overview of IMSS's public procurement 4 2.4. Developments since 2012 4 Notes 5 References 5 References 6 Part II. Assessment of the implementation of OECD recommendations for fighting bid rigging 6 3. Further opportunities to exercise buyer power 6 3.1. Centralisation of IMSS's local purchasing 6 3.2. Joint procurement with other government agencies 7 3.3. Use of multi-year tenders 7 3.4. Facilitating new suppliers' participation in tenders 8 3.5. Recommendations for action 8 Notes 8 References 9 4. Co-ordination with SFP and COFECE and adoption of best practices 9 4.1. Co-ordination with SFP 9 4.2. Promotion of best practices and standardisation of documents and procedures 9 4.3. Adoption of remote and electronic procedures 9 4.4. Co-operation with COFECE 9 4.5. Recommendations for action 10 Notes 10		
2.1. Overview of IMSS	References	31
2.2. General framework for public procurement	2. Overview of IMSS and its legal and operational procurement framework	33
2.2. General framework for public procurement	2.1. Overview of IMSS	35
2.4. Developments since 2012		
Notes	2.3. Overview of IMSS's public procurement	42
References6Part II. Assessment of the implementation of OECD recommendations for fighting bid rigging63. Further opportunities to exercise buyer power63.1. Centralisation of IMSS's local purchasing63.2. Joint procurement with other government agencies73.3. Use of multi-year tenders73.4. Facilitating new suppliers' participation in tenders83.5. Recommendations for action8Notes8References94. Co-ordination with SFP and COFECE and adoption of best practices94.1. Co-ordination with SFP94.2. Promotion of best practices and standardisation of documents and procedures94.3. Adoption of remote and electronic procedures94.4. Co-operation with COFECE94.5. Recommendations for action10Notes10		
Part II. Assessment of the implementation of OECD recommendations for fighting bid rigging		
rigging	References	62
3. Further opportunities to exercise buyer power 6 3.1. Centralisation of IMSS's local purchasing 6 3.2. Joint procurement with other government agencies 7 3.3. Use of multi-year tenders 7 3.4. Facilitating new suppliers' participation in tenders 8 3.5. Recommendations for action 8 Notes 8 References 9 4. Co-ordination with SFP and COFECE and adoption of best practices 9 4.1. Co-ordination with SFP 9 4.2. Promotion of best practices and standardisation of documents and procedures 9 4.3. Adoption of remote and electronic procedures 9 4.4. Co-operation with COFECE 9 4.5. Recommendations for action 10 Notes 10		
3.1. Centralisation of IMSS's local purchasing		
3.2. Joint procurement with other government agencies	3. Further opportunities to exercise buyer power	65
3.3. Use of multi-year tenders		
3.4. Facilitating new suppliers' participation in tenders 3.5. Recommendations for action Notes References 4. Co-ordination with SFP and COFECE and adoption of best practices 9 4.1. Co-ordination with SFP 4.2. Promotion of best practices and standardisation of documents and procedures 9 4.3. Adoption of remote and electronic procedures 9 4.4. Co-operation with COFECE 9 4.5. Recommendations for action 10 Notes		
3.5. Recommendations for action		
Notes		
References		
4. Co-ordination with SFP and COFECE and adoption of best practices		
4.1. Co-ordination with SFP94.2. Promotion of best practices and standardisation of documents and procedures94.3. Adoption of remote and electronic procedures94.4. Co-operation with COFECE94.5. Recommendations for action10Notes10		
4.2. Promotion of best practices and standardisation of documents and procedures94.3. Adoption of remote and electronic procedures94.4. Co-operation with COFECE94.5. Recommendations for action10Notes10		
4.3. Adoption of remote and electronic procedures94.4. Co-operation with COFECE94.5. Recommendations for action10Notes10		
4.4. Co-operation with COFECE94.5. Recommendations for action10Notes10		
4.5. Recommendations for action10Notes10	4.3. Adoption of remote and electronic procedures	96
Notes		
	References	

5.1. Joint bids, split contracts and sub-contracting	5. Fighting practices that may facilitate collusion	105
5.2. Limitations on information published in the annual procurement plan 115 5.3. Recommendations for action 116 Notes 117 References 117 References 117 6. Increased use of competitive procurement mechanisms 119 6.1. Limitations to the use of exceptions to public tenders. 119 6.2. Opening up participation to international bidders as fully as possible 123 6.3. Variability in procurement and tenders 126 6.4. Requirement for a certificate of independent bid determination 127 6.5. Recommendations for action 129 Notes 130 References 130 References 130 References 130 Annex 6.A. Geographical cover of IMSS procurement procedures 132 All procurement procedures 132 Public tenders only 132 All procurement procedures 132 Public tenders only 147 Annex 6.C. Certificate of Independent Bid Determination (COFECE, Mexico) 140 Annex 6.C. Certificate of Independent Bid Determination (COmpetition Bureau, Canada) 142 7. Overhaul of market research 147 7.1. Time and resources allocated to market research 147 7.2. Non-disclosure of information contained in market studies to bidders 154 7.3. Other issues relating to tender design 155 7.4. Recommendations for action 159 Notes 168 8. Monitoring and information-sharing activities 168 8.1. Proactively monitoring participation in tenders and removing any obstacles 167 8.2. Maintaining a comprehensive dataset for all tenders in an appropriate format 167 8.2. Maintaining a comprehensive dataset for all tenders in an appropriate format 167 8.2. Procedures and lines for reporting suspicions of collusion in tenders 173 8.5. Recommendations for action 174 Notes 175 9. Training 177 9.1. Training for IMSS procurement officials 179 9.2. Recommendations for action 170 Notes 176 177 188 189 10.1. Impact of the implementation of OECD recommendations for fighting bid rigging 181 110. Impact of procuring jointly with other public bodies 194	5.1. Joint bids, split contracts and sub-contracting	107
5.3. Recommendations for action	5.2. Limitations on information published in the annual procurement plan	115
References		
6. Increased use of competitive procurement mechanisms	Notes	117
6.1. Limitations to the use of exceptions to public tenders	References	117
6.2. Opening up participation to international bidders as fully as possible	6. Increased use of competitive procurement mechanisms	119
6.2. Opening up participation to international bidders as fully as possible	6.1. Limitations to the use of exceptions to public tenders	119
6.4. Requirement for a certificate of independent bid determination	6.2. Opening up participation to international bidders as fully as possible	123
6.5. Recommendations for action 129 Notes 130 References 130 Annex 6.A. Geographical cover of IMSS procurement procedures 132 All procurement procedures 132 Public tenders only 136 Annex 6.B. Declaration of Integrity and Non-collusion (COFECE, Mexico) 140 Annex 6.C. Certificate of Independent Bid Determination (Competition Bureau, Canada) 142 7. Overhaul of market research 147 7.1. Time and resources allocated to market research 147 7.2. Non-disclosure of information contained in market studies to bidders 154 7.3. Other issues relating to tender design 155 7.4. Recommendations for action 159 Notes 161 References 163 8. Monitoring and information-sharing activities 165 8.1. Proactively monitoring participation in tenders and removing any obstacles 167 8.2. Maintaining a comprehensive dataset for all tenders in an appropriate format 167 8.3. Systematic dialogue with other public agencies 172 8.4. Procedures and lines for reporting suspicions of collusion in tenders 173 8.5. Recommendations for action 174 <td></td> <td></td>		
Notes	6.4. Requirement for a certificate of independent bid determination	127
References	6.5. Recommendations for action	129
Annex 6.A. Geographical cover of IMSS procurement procedures	Notes	130
All procurement procedures		
Public tenders only	Annex 6.A. Geographical cover of IMSS procurement procedures	132
Annex 6.B. Declaration of Integrity and Non-collusion (COFECE, Mexico)	All procurement procedures	132
Annex 6.C. Certificate of Independent Bid Determination (Competition Bureau, Canada)		
7. Overhaul of market research		
7.1. Time and resources allocated to market research	Annex 6.C. Certificate of Independent Bid Determination (Competition Bureau, Canada)	142
7.2. Non-disclosure of information contained in market studies to bidders	7. Overhaul of market research	145
7.2. Non-disclosure of information contained in market studies to bidders	7.1. Time and resources allocated to market research	147
7.3. Other issues relating to tender design		
7.4. Recommendations for action 159 Notes 161 References 163 8. Monitoring and information-sharing activities 165 8.1. Proactively monitoring participation in tenders and removing any obstacles 167 8.2. Maintaining a comprehensive dataset for all tenders in an appropriate format 167 8.3. Systematic dialogue with other public agencies 172 8.4. Procedures and lines for reporting suspicions of collusion in tenders 173 8.5. Recommendations for action 174 Notes 176 References 176 9. Training 177 9.1. Training for IMSS procurement officials 179 9.2. Recommendations for action 180 Notes 181 References 181 Part III. Impact of the implementation of OECD recommendations for fighting bid rigging 183 10. Impact on tender outcomes of changes in IMSS procurement practices 189 10.1. Impact from centralisation of procurement 191 10.2. Impact of procuring jointly with other public bodies 194		
Notes		
References		
8.1. Proactively monitoring participation in tenders and removing any obstacles 167 8.2. Maintaining a comprehensive dataset for all tenders in an appropriate format 167 8.3. Systematic dialogue with other public agencies 172 8.4. Procedures and lines for reporting suspicions of collusion in tenders 173 8.5. Recommendations for action 174 Notes 176 References 176 9. Training 177 9.1. Training for IMSS procurement officials 179 9.2. Recommendations for action 180 Notes 181 References 181 Part III. Impact of the implementation of OECD recommendations for fighting bid rigging 183 10. Impact on tender outcomes of changes in IMSS procurement practices 189 10.1. Impact from centralisation of procurement 191 10.2. Impact of procuring jointly with other public bodies 194		
8.2. Maintaining a comprehensive dataset for all tenders in an appropriate format	8. Monitoring and information-sharing activities	165
8.2. Maintaining a comprehensive dataset for all tenders in an appropriate format	8.1. Proactively monitoring participation in tenders and removing any obstacles	167
8.3. Systematic dialogue with other public agencies		
8.4. Procedures and lines for reporting suspicions of collusion in tenders 173 8.5. Recommendations for action 174 Notes 176 References 176 9. Training for IMSS procurement officials 179 9.2. Recommendations for action 180 Notes 181 References 181 Part III. Impact of the implementation of OECD recommendations for fighting bid rigging 183 10. Impact on tender outcomes of changes in IMSS procurement practices 189 10.1. Impact from centralisation of procurement 191 10.2. Impact of procuring jointly with other public bodies 194		
8.5. Recommendations for action		
Notes	1 0 1	
References		
9.1. Training for IMSS procurement officials	References	176
9.2. Recommendations for action	9. Training	177
9.2. Recommendations for action	9.1. Training for IMSS procurement officials	179
Notes		
References		
10. Impact on tender outcomes of changes in IMSS procurement practices18910.1. Impact from centralisation of procurement19110.2. Impact of procuring jointly with other public bodies194		
10.1. Impact from centralisation of procurement	Part III. Impact of the implementation of OECD recommendations for fighting bid riggin	ıg 183
10.2. Impact of procuring jointly with other public bodies	10. Impact on tender outcomes of changes in IMSS procurement practices	189
10.2. Impact of procuring jointly with other public bodies	10.1. Impact from centralisation of procurement	191

10.4. Impact on concentration	198
Notes	200
References	201
11. Selected case studies	203
11.1. Generic medicines: Anti-haemophilic human factor VIII (AHF)	207
11.2. Generic medicines: Diclofenac sodium	
11.3. Generic medicines: Immunoglobulin G	213
11.4. Generic medicines: Metformin	214
11.5. Generic medicines: Paracetamol	
11.6. Generic medicines: Ranitidine	
11.7. Patented medicines: Celecoxib and imatinib	
11.8. Medical material: Gauzes	
11.9. Medical material: Infusion sets	
11.10. Medical material: Sutures	
11.11. Other items: Paper towels	
11.12. Services: Insurance	
Notes	
Annex A. Short description of the data sources used throughout this report	
IMSS tender data	
IMSS consolidated tender data	
CompraNet contract data	
INEGI data	
Notes	249
Annex B. Implementation of the 2011 OECD recommendations and follow-up actions Tables	250
Table 2.1. Healthcare institutions/insurers in the Mexican public-health system (2017)	25
Table 2.2. Largest IMSS delegations	
Table 2.3. Share of single-source medicines in the public and private sector (2012)	
Table 2.4. Top-10 leading pharmaceutical companies by share of value in the total market	
Table 2.5. IMSS spending on procurement, 2016	
Table 3.1. Savings from consolidated tenders	
Table 3.2. Share of IMSS spending through central and local tenders allocated	
to top-10 and top-20 suppliers	72
Table 3.3. Public bodies participating in consolidated tenders and their requirements	75
Table 3.4. Value share of medicines and medical materials awarded through consolidated tenders	to
top-10 suppliers	
Table 3.5. Products declared void after consolidated tenders	
Table 3.6. Duration of IMSS supply contracts	80
Table 3.7. IMSS procurement of integrated services, 2015-2016	81
Table 7.1. Sources used by IMSS delegations and UMAES in conducting market research	
Table 7.2. Offers received for lots containing multiple products, 2016-2017 consolidated tenders	
Table 9.1. Turnover rate at IMSS, 2015-2016	
Table 10.2. Savings from the centralisation of fiviss's local purchasing	
THOSE TOTAL SHIPLING TOT THIS STORM COMMONICAL CHACLES COMMONICAL	··· ±/J

Table 10.3. Volume, tender characteristics and prices in IMSS tenders	198
Table 11.1. Characteristics of IMSS tenders for the acquisition of AHF	210
Table 11.2. Bidders and winners in IMSS central tenders for metformin	216
Table 11.3. Characteristics of IMSS tenders for the acquisition of paracetamol tablets	219
Table 11.4. Bidders and winners in IMSS central and consolidated tenders for ranitidine	
Table 11.5. Characteristics of central IMSS tenders for celecoxib tablets, 2014-2016	224
Table 11.6. Characteristics of central IMSS tenders for imatinib tablets, 2014-2016	225
Table 11.7. Winners in IMSS central tenders for gauze	228
Table 11.8. Split contract awards in IMSS public procurement of sutures	
Table 11.9. Selected IMSS local procurement procedure for paper towels, 2009-2011	
Table 11.10. IMSS spending on insurance and reported savings	236
Table 11.11. Bids and outcome of tenders for IMSS mortgage life insurance	237
Figures	
Figure 2.1. Organigram of IMSS	37
Figure 2.2. Legal and regulatory framework of IMSS public procurement	
Figure 2.3. Organisation of IMSS procurement units at a central level	
Figure 2.4. Organisation of IMSS procurement units at delegation level	
Figure 2.5. Organisation of IMSS procurement units at UMAE level	
Figure 2.6. IMSS procurement process	
Figure 2.7. Mexican Gross Domestic Product (GDP)	
Figure 2.8. Mexican annual inflation rate	
Figure 2.9. Average annual barrel price of oil imports into the US	
Figure 2.10. US dollar and Mexican peso daily exchange rate (USD/MXN)	
Figure 2.11. Health expenditure in Mexico, as a share of GDP	52
Figure 2.12. Mexican public spending in health by institution	
Figure 2.13. Pharmaceutical spending as a share of total health spending in Mexico	
Figure 2.14. Mexico consumer price indexes, 2011-2017	53
Figure 2.15. Medicine manufacturing (2013 MXN, millions)	
Figure 2.16. Imports and exports of medicines (2013 MXN, millions)	
Figure 2.17. Share of value accounted for by IMSS's top-5 and top-10 suppliers	
Figure 3.1. Share of the value of medicines procurement by IMSS at central and local levels	70
Figure 3.2. Share of the value of medical-material procurement by IMSS at central and local leve	ls . 71
Figure 3.3. Share of the value of procurement by IMSS of other items at central and local levels.	71
Figure 3.4. Share of the value of procurement by IMSS through local, central	
and consolidated tenders	76
Figure 3.5. Number of items purchased and duration of corresponding supply contracts,	
by product type	80
Figure 3.6. Share of the number of offers received for the procurement of medicines,	
2016-2017 consolidated tenders	83
Figure 3.7. Share of the number of offers received for the procurement of medical materials,	
2016-2017 consolidated tenders	83
Figure 3.8. Share of the number of offers received for the procurement of gloves, latex and	
syringes, 2016-2017 consolidated tenders	
Figure 3.9. Share of the number of bids received, 2016-2017 consolidated reverse auctions	84
Figure 3.10. Share of the number of brands in single offers for medicines procurement,	
2016-2017 consolidated tenders	
Figure 3.11. Share of the number of brands in single bids, 2016-2017 consolidated auctions	
Figure 4.1 Ratio of IMSS central tenders run electronically, in person or through mixed procedu	res 97

Figure 4.2. Share of value awarded by IMSS following central tenders run electronically,	
in person or through mixed procedures	98
Figure 4.3. Ratio of IMSS local tenders run electronically, in person or through mixed procedures.	98
Figure 4.4. Share of value awarded by IMSS following local tenders run electronically, in person o	r
through mixed procedures	
Figure 5.1. Split of IMSS central contracts, by number of items	110
Figure 5.2. Split of IMSS central contracts, by value	
Figure 5.3. Split of IMSS local contracts, by value	
Figure 6.1. Share of IMSS central contracts awarded using each procedure, by value	
Figure 6.2. Share of items purchased by IMSS centrally after a public tender, by product category.	
Figure 6.3. Share of IMSS delegation and UMAE contracts awarded	
using each procedure, by value	122
Figure 6.4. Share of items purchased by IMSS delegations and UMAEs	
after a public tender, by product category	122
Figure 6.5. Number of IMSS contracts awarded after national, FTA or international procurement	125
Figure 6.6. Share of IMSS contracts awarded after national, FTA or international public tenders	126
Figure 7.1. IMSS market-research organigrams	148
Figure 10.1. Concentration ratio (CR4) of IMSS tender winners for the supply of medicines	
in each year, based on contract value	199
Figure 10.2. Value of contracts awarded to top-four suppliers of medicines to IMSS in each year	. 199
Figure 11.1. Purchase volumes and unit prices for AHF in IMSS public procurement	208
Figure 11.2. Price for AHF in IMSS public procurement and purchases	209
Figure 11.3. Purchase volumes and unit prices for diclofenac capsules in IMSS public procurement	212
Figure 11.4. Purchase volumes and unit prices for immunoglobulin G capsules in IMSS public	
procurement	
Figure 11.5. Price for immunoglobulin G in IMSS public procurement and purchases	
Figure 11.6. Purchase volumes and unit prices for metformin tablets in IMSS public procurement	215
Figure 11.7. Purchase volumes and unit prices for paracetamol tablets in IMSS public procurement	t 218
Figure 11.8. Price for paracetamol tablets in IMSS public procurement and purchases	220
Figure 11.9. Purchase volumes and unit prices for ranitidine tablets in IMSS public procurement	
Figure 11.10. Purchase volumes and unit prices for celecoxib tablets in IMSS public procurement .	
Figure 11.11. Purchase volumes and unit prices for imatinib tablets in IMSS public procurement	
Figure 11.12. Purchase volumes and unit prices for gauzes in IMSS public procurement	. 227
Figure 11.13. Purchase prices for gauzes in IMSS central tenders and the price for cotton	
Figure 11.14. Average purchase prices for infusion sets in IMSS public procurement	
Figure 11.15. Purchase volumes and unit prices for sutures in IMSS public procurement	
Figure 11.16. Prices for paper towels in IMSS public procurement, 2012-2016	
Figure 11.17. IMSS insurance cover and insurance contract value	237
Annex Figure 6.A.1. Share of IMSS contracts awarded after national, FTA or	
international procurement	. 132
Annex Figure 6.A.2. Share of IMSS contracts awarded after national, FTA or	
international procurement, by product type	134
Annex Figure 6.A.3. Share of IMSS contracts awarded after national, FTA or	
international public tenders	136
Annex Figure 6.A.4. Share of IMSS contracts awarded after national, FTA or	
international public tenders, by product type	. 138

Boxes

Box 2.1. Trade associations in the pharmaceutical industry	41
Box 3.1. Emergency purchases	
Box 3.2. Model timeline for consolidated tenders	
Box 3.3. COFECE investigation into bid rigging in tenders for the supply of latex gloves	78
Box 4.1. Cuadros Básicos, the IMSS product catalogues	95
Box 4.2. Co-operation between contracting authorities and competition agencies in Canada,	
Colombia, Hungary and Slovak Republic	101
Box 5.1. Anti-competitive joint bidding in Norway	
Box 5.2. Criteria for determining whether a joint bid is pro- or anti-competitive	108
Box 5.3. Lots in public procurement	112
Box 5.4. OECD checklist for protecting competition when splitting contracts into lots	113
Box 6.1. Reasons for local procurement	123
Box 6.2. Examples of communication to bidders of sanctions for engaging in	
anti-competitive behaviour	128
Box 7.1. COFECE investigation into manipulation of quotes in market research	156
Box 8.1. COFECE experience implementing cartel screens in the IMSS case (IO-03-2006)	168
Box 8.2. Cartel screens by competition authorities	171
Box 8.3. Confidential and anonymous reporting of anticompetitive practices	174

Abbreviations and acronyms

AMEGI	Asociación Mexicana de Fabricantes de Medicamentos Genéricos Intercambiables (Mexican Association of Interchangeable Generics Manufacturers)		
AMID	Asociación Mexicana de Industrias Innovadoras de Dispositivos Médicos (Mexican Association of Innovative Medical Equipment Industries)		
AMIIF	Asociación Mexicana de Industrias de Investigación Farmacéutica (Mexican Association of Industries for Pharmaceutical Research)		
ANADIM	Asociación Nacional de Distribuidores de Medicinas (National Association of Distributors of Medicines)		
ANAFAM	Asociación Nacional de Fabricantes de Medicamentos (National Association of Medicine Manufacturers)		
ANDIS	Asociación Nacional de Distribuidores de Insumos para la Salud (National Association of Health Input Distributors)		
Banxico	Banco de México (Bank of Mexico)		
CABCS	Coordinación de Adquisición de Bienes y Contratación de Servicios, IMSS (Goods Procurement and Service Contracting Co-ordination, IMSS)		
CAE	Coordinación de Abastecimiento y Equipamiento, IMSS (Equipment and Supply Co-ordination, IMSS)		
CANIFARMA	Cámara Nacional de la Industria Farmacéutica (Mexican Chamber of the Pharmaceutical Industry)		
CCNPMIS	Comisión Coordinadora para la Negociación de Precios de Medicamentos e Insumos para la Salud (Co-ordinating Commission for the Negotiation of Prices for Medicines and other Health Products)		
CFC	Comisión Federal de Competencia (Federal Competition Commission)		
CFE	Comisión Federal de Electricidad (Federal Electricity Commission)		
CIBD	Certificado de Oferta Independiente (Certificate of Independent Bid Determination)		
CNPSS or SP	Comisión Nacional para la Protección Social en Salud / Seguro Popular de Salud (National Commission for the Protection of Public Health / public health insurance)		
COCTI	Coordinación de Control Técnico de Insumos, IMSS (Unit for the Technical Control of Inputs, IMSS)		

COFECE	Comisión Federal de Competencia Económica (Federal Commission for Economic Competition)		
COFEPRIS	Comisión Federal para la Protección Contra Riesgos Sanitarios (Federal Commission for Protection Against Sanitary Risks)		
CSG	Consejo de Salubridad General (General Health Council of Mexico)		
FO-CONS	Formatos de contratación (Procurement forms)		
FTA	Free-trade agreements		
GEM	Gobierno del Estado de México (Government of the State of Mexico)		
IEA	International Energy Agency		
IFT	Instituto Federal de Telecomunicaciones (Federal Telecommunications Institute)		
IMPI	Instituto Mexicano de la Propiedad Industrial (Mexican Industrial Property Institute)		
IMSS	Instituto Mexicano del Seguro Social (Mexican Social Security Institute)		
INAI	Instituto Nacional de Transparencia, Acceso a la Información y Protección de Datos Personales (National Transparency and Public Information Access Institute)		
INAP	Instituto Nacional de Administración Pública (National Institute of Public Administration)		
INEGI	Instituto Nacional de Estadística y Geografía (Mexican Statistical and Geographical Survey Institute)		
ISSSTE	Instituto de Seguridad y Servicios Sociales de los Trabajadores del Estado (Institute of Social Security and Services for State Workers)		
LAASSP	Ley de Adquisiciones, Arrendamientos y Servicios del Sector Público (Public Sector Procurement, Rents and Services Law)		
LFCE	Ley Federal de Competencia Económica (Federal Economic Competition Law)		
LFTAIP	Ley Federal de Transparencia y Acceso a la Información Pública (Federal Transparency and Access to Public Information Law)		
MFN	Most favoured nation		
MRP	Maximum reference price		
OIC	Órgano Interno de Control, IMSS (Internal Control Unit, IMSS)		
PAAASOP	Programas Anuales de Adquisiciones, Arrendamientos y Servicios del Sector Público y de Obras Públicas y Servicios Relacionados con las Mismas (Public Procurement, Rents, Services and Public Works Annual Plan)		

PEMEX	Petróleos Mexicanos (Mexican Petroleum, state-owned oil company)		
POBALINES	Políticas Bases y Lineamientos en Materia de Adquisiciones Arrendamientos y Servicios del IMSS (IMSS Policies and Guidelines on Procurement, Rents and Services)		
RLAASSP	Reglamento de la Ley de Adquisiciones, Arrendamientos y Servicios del Sector Público (Regulation on the Public Sector Procurement, Rents and Services Law)		
SE	Secretaría de Economía (Mexican Ministry of Economy)		
SEDENA	Secretaría de la Defensa Nacional (Mexican Ministry of Defence)		
SEMAR	Secretaría de Marina (Mexican Ministry of the Navy)		
SFP	Secretaría de la Función Pública (Mexican Ministry of Public Affairs)		
SHCP	Secretaría de Hacienda y Crédito Público (Mexican Ministry of Finance and Public Credit)		
SS	Secretaría de Salud (Mexican Ministry of Health)		
UMAE	Unidad Médica de Alta Especialidad, IMSS (High-specialty hospital, IMSS)		

Executive summary

IMSS is the largest social-security system in Mexico. It is also the second largest public procurer and by far the country's largest public buyer of health products. In 2011, the OECD published a report containing a set of recommendations aimed at aligning the Mexican procurement legislation with the OECD Recommendation and Guidelines on Fighting Bid Rigging in Public Procurement; and also provided recommendations to IMSS on how to ensure procurement is more competitive and less vulnerable to bid rigging.

This present report contains: 1) an assessment of the status and implementation of the 2011 recommendations to IMSS; 2) an analysis of the impact of the changes in IMSS procurement practices on procurement processes and outcomes; and 3) an action plan for IMSS to implement any unadopted recommendations and further improve its procurement practices.

Further opportunities to exercise buyer power

Centralisation of IMSS's local purchasing. IMSS began the gradual transfer of its procurement capacity from delegations and UMAEs to its central unit in 2006. In the case of medicines, which account for an overwhelmingly high share of spending for IMSS, the value of purchases directed through delegations and UMAEs has dropped to less than 1%; this reflects IMSS's continued effort to aggregate its local requirements and organise tenders at the central level. Aggregation is less profound for the procurement of items other than medicines, for which centralised tenders were introduced later. This is also reflective of the more localised nature of some of these purchases.

Joint procurement with other government agencies. A mature system of consolidated tenders, led by IMSS, has been in place since 2013. It involves joint purchasing of medicines, vaccines and medical material, and aggregates the requirements of all participating public bodies into combined tenders. The number of participating public agencies and the value of items procured in consolidated tenders has been growing since their implementation. IMSS has estimated that purchasing jointly with other public bodies has resulted in annual savings of between 5% and 9% for the period 2013-2017, corresponding to total savings, for IMSS alone, of around MXN 10.5 billion.

Use of multi-year tenders. IMSS began using multi-year contracts for durable goods and integrated services. Since 2008, the latter have been put out to tender for contracts lasting more than two years. IMSS has identified benefits from multi-year service contracts, such as increased efficiency, a refinement of relevant medical units' requirements, and savings generated by the lower average prices it obtained. However, IMSS has not made use of multi-year tenders for the procurement of non-durable goods, for which the overwhelming majority of contracts are for a period of fewer than 15 months.

Facilitating new suppliers' participation in tenders. IMSS' most important suppliers currently account for a significant share of the organisation's spending. In 2016, over 60% of the total value of centrally awarded contracts was held by 10 suppliers, and 76% by 20 suppliers. Similarly, the value share of contracts awarded to the top-10 suppliers in the 2013-2016 consolidated tenders has remained above 60%. IMSS should monitor participation in its tenders and remain vigilant to ensure that competition in the relevant markets is safeguarded. Given that sponsoring entry is difficult in the case of public bodies, IMSS should actively explore ways to attract and maintain the interest of local and international suppliers in its tenders, as well as promoting participation by smaller capacityconstrained suppliers.

Co-ordination with SFP and COFECE and adoption of best practices

Co-ordination with the Mexican Ministry of Public Affairs (SFP). IMSS had been engaged in constructive dialogue with SFP in the past. However, since 2012, SFP's participation in IMSS procurement procedures has been limited to an advisory and supervisory role. Both informal discussions (for example, regarding the limitations of the procurement laws and by-laws) and more formal channels, such as working groups and roundtables, would be of benefit to IMSS.

Co-operation with the Federal Commission for Economic Competition (COFECE). IMSS and COFECE routinely exchange information during ongoing COFECE investigations. However, IMSS and COFECE have not co-operated frequently outside the latter's enforcement role. In 2014, IMSS and COFECE signed an agreement for closer cooperation. This agreement has not been fully implemented in practice so any potential benefits have yet to be fully realised.

Promotion of best practices and standardisation of documents and procedures. IMSS compiles and uses a series of catalogues of standardised products for its procurements. Moreover, standardised templates for the different acts of the procurement cycle are also available from an online library and their use is uniformly mandatory across IMSS. Since 2011, significant progress has been made within IMSS in standardising procedures and documents, particularly at the central level, although some disparities in the use of standardised procedures still remain at local level.

Adoption of remote and electronic procedures. The ratio of electronic tenders organised centrally has increased from just over 30% in 2012 to just under 70% in 2016. In terms of value, the progression has also been positive, the ratio of electronic procedures growing to almost 90% in 2016. While less pronounced, the progress in the use of electronic tenders is also evident at delegation level, although the value of non-electronic tenders is over 35% in the same year. Although the Mexican government's e-procurement platform, CompraNet, allows for all stages of the procurement process to be carried out electronically, IMSS currently carries out clarification meetings and presentations and openings of bids in closed meetings. The corresponding minutes identify potential and actual bidders; IMSS should avoid publishing this information as it may facilitate collusion.

Fighting practices that may facilitate collusion

Joint bids. The Mexican Procurement Act allows the submission of joint bids unless the contracting authority is opposed for justified reasons. In 2011, the OECD recommended that IMSS require joint bids to be permissible only when they could be justified for procompetitive reasons. This requirement for a (pro-competitive) justification for joint bids is not currently imposed.

Split contracts. IMSS decides on whether split awards are allowed based upon the outcome of market research carried out before each tender. Overall, the ratio of single-contract awards has been steadily increasing since 2011. In addition, IMSS policy on split contracts has moved from using a 60/40 ratio to a predominantly 80/20 split (for medicines, in particular). Since 2015, IMSS has also largely restricted the number of co-suppliers to two.

Subcontracting. Mexican procurement legislation is silent about subcontracting. IMSS would benefit from imposing up-front disclosure obligations to bidders in order to prevent the risks associated with subcontracting.

Limitations on information published in the annual procurement plan. The IMSS annual procurement plan and its updates have to be registered on the CompraNet website, in accordance with the processes established in the CompraNet user manual. A more flexible way of registering and displaying annual procurement plans would allow IMSS to control the amount and level of detail of the published information, so as not to facilitate collusive schemes.

Increased use of competitive procurement mechanisms

Limitations to the use of exceptions to public tenders. The share of IMSS spending following public tenders has been consistently over 90% (with the exception of 2013-2014); this share is even higher if consolidated tenders are also considered. Procurement by IMSS delegations and UMAEs makes more frequent use of exceptions to public tender procedures. Overall, IMSS has managed in the recent past to contain the value share of purchases made using direct awards and restricted invitations at around 20%, below the upper threshold of 30% mandated in law.

Opening up participation to international bidders as fully as possible. Over the period 2011-2016, the number of contracts awarded through national procedures has decreased slightly, a trend that continued in 2017. The corresponding value of those contracts has been around 35% mark throughout the period, however. This moderate decline in the share of national procedures is largely due to fewer national procurements organised at the delegation and UMAE level, which is why the value share has not moved in the same direction. A further increase in the use of international tenders may, however, require an amendment to the Procurement Act so that contracting authorities have greater flexibility to use such tenders more easily.

Variability in procurement and tenders. IMSS is currently restricted in how much it can vary its procurement processes: the procurement regulatory framework does not consider unpredictability as a relevant factor in determining the type and nature of the procurement process to be followed. In that sense, any decision regarding tender design depends on the outcome of market research or on predetermined factors. Unpredictability in tenders yields long-term benefits that cannot be captured by a static market-research in the context of each particular tender.

Requirement for a certificate of independent bid determination. In 2013, IMSS began including a Declaration of Integrity in its centrally organised calls for tender. This declaration indicates that suppliers are aware of the article of the laws referring to absolute monopolistic practices and the pecuniary and criminal sanctions punishing these practices. It also contains a statement that suppliers have submitted bids independently and have not established any communication with competitors in relation to prices; methods or formulas to calculate prices; the intention or decision whether to present an offer; or the presentation of a cover bid. This declaration has been introduced gradually for public procurement procedures.

Overhaul of market research

Time and resources allocated to market research. In the period since 2011, IMSS has taken significant steps to strengthen its market-research capabilities, particularly at the central procurement level. Since 2012, market research has become more institutionalised, moving from ad hoc work to systemic research undertaken by a specialised unit doing systematic research. This unit became autonomous in mid-2016. Market research is now embedded in IMSS procurement processes, at least for consolidated and central tenders. Market studies for local tenders are compiled by acquisition and administration teams, so that there are variations as to how delegations and UMAEs organise their market research and who conducts it.

IMSS market studies consistently use the sources identified by the Procurement Act. Potential additional sources could well be identified, including tenders by other public bodies, international comparisons, ex post data on contract execution, information on local conditions of supply and demand.

Non-disclosure to bidders of information contained in market studies. The IMSS approach to the disclosure of information to bidders is governed by the requirements of the Procurement Act and transparency laws. While remaining within the relevant regulatory frameworks, IMSS should continue to ensure that no information is unnecessarily shared with tender participants, and consider when transparency is appropriate.

Monitoring and information-sharing activities

Proactively monitoring participation in tenders and removing obstacles. To date, IMSS has not established a specialised unit for monitoring and evaluating participation in its tenders. There is also a lack of easily accessible data on the number of bidders in each IMSS tender. The market-research unit could perform this monitoring function effectively and could also be tasked with identifying barriers to participation, such as tender design or specific market conditions, in order they be removed.

Maintaining a comprehensive dataset for all tenders in an appropriate format. IMSS has taken a number of steps since 2011 aimed at collecting data about its purchases of goods and services, and making them more widely available. IMSS's initiatives are mostly rooted in transparency or operational considerations, however, and are not designed to assist in the detection of bid rigging.

The data that IMSS collects and maintains should follow the following principles: 1) they should fit the scope of any proposed analysis (for example, collecting tender instead of contract data); 2) they should be of good quality; 3) they should be in a usable, flexible and searchable format; 4) they should be accessible by those who would benefit from using it, both within and outside IMSS.

Systematic dialogue with other public agencies. There are currently two main forums within which IMSS exchanges information with other public bodies regarding its procurement processes and outcomes: CompraNet and the IMSS-led joint preparation for annual consolidated tenders. IMSS and other public bodies do not, however, proactively engage in co-operation with other public bodies outside the framework of consolidated tenders.

Procedures and lines for reporting suspicions of collusion in tenders. Appropriate reporting lines, perhaps anonymised, are essential if action is to be taken to investigate and eventually combat bid rigging in IMSS tenders. These ought to be communicated clearly to all officials involved in the procurement process.

Training

Both IMSS and SFP offer training to procurement officials, with some modules sometimes covering detection of and action against anti-competitive conduct. Over the past seven years, there have been few opportunities for IMSS officials to receive training on fighting bid rigging, including from the OECD and COFECE.

IMSS should organise and invest in a comprehensive and long-term programme of capacity building in public procurement and fighting bid rigging, especially in light of the high turnover rate of procurement staff at IMSS that makes continuous training a necessity.

In the context of the present review, the OECD implemented an extensive schedule of workshops on fighting bid rigging, with contributions from COFECE and international experts. The OECD also provided training to IMSS-designated trainers, who can now train other IMSS officials going forward, and produced a comprehensive training manual to assist them on delivering training on bid rigging.

Impact from the implementation of the 2011 OECD recommendations

While it is not possible to directly assess whether the implementation of OECD recommendations has eliminated the risk of bid rigging in IMSS's public procurement, a second-order effect of an improvement in tender outcomes can be measured.

Tender design is a significant factor in determining the outcomes IMSS achieves from its public procurement. By making wider use of competitive procurement processes and opening up participation in its tenders, IMSS realises cost savings in its purchasing. For example, public tenders result in prices up to 12% lower when compared to the prices achieved after direct contract or restricted-invitation awards. Similarly, holding procedures that allow non-Mexican bidders to participate produces prices on average 2% lower than national tenders.

Significant savings are estimated to have been made from the implementation of OECD recommendations aimed at increasing IMSS's use of its leveraging power as a buyer. The Procurement centralisation is estimated to have resulted in IMSS saving between 7.4% and 8.8% in spending between 2009-2016; this translates to savings of approximately MXN 13-15 billion. By implementing the recommendation to procure jointly with other government bodies, the OECD estimates that IMSS has realised savings of between MXN 5.6 billion and MXN 6.5 billion in 2013-2016; this corresponds to 5.3%-5.8% of its spending on the relevant products. IMSS also reports savings from making use of other instruments to exercise its buyer power, for example, using multi-year contracts or organising regional tenders.

The analysis of a series of case studies in the context of this review has demonstrated the importance of several characteristics of the procurement process that were the focus of the 2011 OECD recommendations. Central and consolidated tenders have generally led to more favourable supply terms for IMSS (typically, lower prices) when compared to tenders organised in a decentralised manner. Moreover, a significant positive spillover effect has been that the terms agreed at central level often constrained those in similar locally awarded IMSS contracts. In addition, tender participation is found to be an important element in the procurement process, and it is affected by tender-design choices. This finding reinforces the OECD recommendation that IMSS monitor supplier-side concentration and participation in its tenders.

These findings confirm the positive impact on procurement outcomes brought about by IMSS implementing the 2011 OECD recommendations. They also suggest similar effects from continuing with similar procurement practices going forward.

Part I. Introduction and overview

1. Introduction and scope of the report

Although illegal, bid rigging is widespread in public procurement across the world and continues to have a direct negative impact on the resources of public institutions. Since 2011, Mexico has partnered with the OECD to improve its procurement practices. In 2011, the OECD prepared a report that contained a set of recommendations to IMSS aimed at ensuring more competitive procurement that is less vulnerable to bid rigging. This present, follow-up report contains an assessment of the status and implementation of those 2011 recommendations, as well as an analysis of their impact on IMSS procurement outcomes.

This section describes the OECD's work on fighting bid rigging in public procurement, the background and context of the OECD report on fighting bid rigging in the procurement procedures of the Mexican Social Security Institute (Instituto Mexicano del Seguro Social, IMSS) released in 2012 (OECD, 2011); the recommendations it contained; and the scope of this present report.

1.1. OECD's work on bid rigging

Bid rigging involves groups of companies conspiring to raise prices or lower the quality of the goods or services offered in tenders. In the context of public procurement, it has a direct negative impact on public resources and, consequently, the economy of a country. Although illegal, it is widespread and continues to cost governments and taxpayers across the world billions of dollars.

Concrete case studies have shown that when firms collude, the cost of goods and services can increase by up to 20% (for example, Smuda, 2015). This percentage may be even higher: for example, the Mexican Competition Authority (Comisión Federal de Competencia Económica, COFECE) calculated that during the period 2003-2006, IMSS paid an overcharge of 57.6% as a result of collusive practices in the pharmaceutical sector.² More recently, COFECE has established that bid-rigging schemes in the supply of latex gloves (2009-2015) and condoms and latex catheters (2009, 2011-2013) led to public procurers in the health sector being overcharged by and estimated MXN 174.8 million and MXN 177.7 million respectively.³ Moreover, bid rigging makes it likely that overcharging will continue over longer periods, as for repeat tenders the price obtained by the procuring authority is – partly – informed by previous outcomes.

In 2012, the OECD Council adopted the OECD Recommendation on Fighting Bid Rigging in Public Procurement ("OECD Recommendation") that calls on governments to assess their public-procurement laws and practices – at all levels of government – in order to promote more effective procurement and reduce the risk of bid rigging in public tenders.

The OECD Guidelines for Fighting Bid Rigging in Public Procurement ("OECD Guidelines"), which are included in the OECD Recommendation, are key to this endeavour. These guidelines are based on international best practices and offer non-binding advice to public institutions on how to reduce the risk of bid rigging through effective tender design, as well as how to detect collusive practices during the tender process.

The OECD Guidelines identify a number of market characteristics that can facilitate bidrigging schemes⁴ and include two checklists. The first, whose main objective is prevention, deals with the optimal design of tender processes to reduce the risk of bid rigging. The second includes advice on how to detect bid rigging during the tender process by identifying suspicious pricing patterns and bidder behaviour, as well as statements that should alert procurement officials to possible manipulation of the procurement process.

Since 2011, Mexico has partnered with the OECD to improve its procurement practices and step up its fight against bid rigging. IMSS was the first public agency in Mexico (and the world) to formally request an OECD review of its internal procurement regulations and practices in light of the OECD Guidelines. IMSS's initiative was followed by other Mexican public entities: the Government of the State of Mexico (Gobierno del Estado de México, GEM);⁵ the Institute of Social Security and Services for State Workers (Instituto de Seguridad y Servicios Sociales de los Trabajadores del Estado, ISSSTE);6 Mexican Petroleum (Petróleos Mexicanos, PEMEX);7 and the Mexican Electricity Commission (Comisión Federal de Electricidad, CFE).8

1.2. The OECD study in 2011

In January 2011, IMSS signed a memorandum of understanding (MOU) with the OECD and the Mexican competition authority (at that time, Comisión Federal de Competencia, CFC) committing to adopt and implement the OECD Guidelines for Fighting Bid Rigging in Public Procurement.

As a result of this MOU, the OECD published a report entitled Fighting Bid Rigging in Public Procurement in Mexico: A Secretariat Report on IMSS Procurement Regulations and Practices. This report contains a set of recommendations addressed to the Mexican legislative branch to align Mexican procurement legislation with the OECD Recommendation and Guidelines. It also provides recommendations to IMSS on how to ensure procurement is more competitive and less vulnerable to bid rigging.

The OECD's 2011 recommendations to IMSS were the following.

1. Explore additional opportunities to make the best use of its significant buyer power by:

- a. further centralising purchasing among its local centres;
- b. using multi-year tenders where appropriate, such as for generic medicines that have been out of patent protection for several years and for which the number of eligible suppliers has stabilised;
- c. procuring goods and services jointly with other government agencies (consolidation of purchases); and
- d. attracting interest from and sponsoring the entry of new suppliers.

2. Co-ordinate with SFP and CFC (now COFECE) and adopt best practices by:

- a. co-ordinating procurement procedures with SFP by requesting advice on how to best design the procurement and structure the tender;
- b. promoting the adoption of best practices in procurement by its staff and the use of standardised tender documents and procedures;
- c. adopting remote and electronic tender procedures for all its purchases and at all stages of the procurement process; and
- d. expanding its co-operation with CFC (now COFECE) and considering a formal arrangement, e.g. by signing a protocol.

3. Fight practices that may facilitate collusion by:

- a. making it clear in calls for tenders that joint bids are allowed only when there are pro-competitive justifications;
- b. splitting a single contract among multiple suppliers only in exceptional circumstances, e.g. to allow new entrants to gain a presence in the market;
- c. requiring bidders to: i) disclose upfront their intention to use subcontractors; ii) clearly identify these subcontractors; and, iii) explain why subcontracting is necessary for the proper fulfilment of the contract; and
- d. assessing whether the amount of information and the level of detail published in the IMSS annual procurement plan could facilitate collusion, within the limits imposed by law.

4. **Increase use of competitive mechanisms** by:

- a. limiting the use of exceptions to public tenders;
- b. always choosing to open up participation in a procurement procedure as fully
- c. changing tender mechanisms, timing of tenders and extent of consolidation in such a way that collusion becomes more difficult to emerge or to continue; and
- d. considering the requirement of a certificate of independent bid determination (CIBD) to accompany all tenders.

5. **Overhaul market studies** by:

- a. changing planning procedures so that enough time is available to carry out informative market studies;
- b. changing the way market studies are conducted so that a sufficient amount of information can be collected from good-quality sources to inform the choice of a suitable tender procedure, as well as the level of reference prices; and
- c. not disclosing to bidders information contained in market studies before the tender.

6. Improve monitoring and information-sharing activities by:

- a. regularly and proactively monitoring the number of bidders for each macrocategory of expenditure and ensuring that their number does not fall below acceptable levels;
- b. proactively investigating why bidders may decide no longer to bid and take appropriate actions to remove obstacles to participation;
- c. maintaining comprehensive datasets for all tenders that are available to CFC (now COFECE) in easily analysable formats that enable prompt investigation of any suspicious bidding patterns;
- d. engaging proactively in a systematic dialogue with other public agencies in order to share best practices, suspicious bidding behaviour and market intelligence; and
- e. setting up clear procedures and reporting lines for procurement staff to report any suspicions of collusion during tenders.

7. Expand training activities

a. implementing a training programme for IMSS procurement staff focusing on bid rigging and ways to fight it.

1.3. Scope and motivation of current study

In October 2016, IMSS and the OECD signed a second agreement to analyse whether IMSS's procurement regulations and practices were aligned with the 2011 recommendations. Concurrent with this review, and to further support the objective to assist IMSS in fighting bid rigging in its public procurement, the OECD organised a series of workshops on fighting bid rigging for IMSS procurement officials and trainers, and prepared future material for IMSS trainers. The OECD has also provided technical assistance and support to IMSS in designing a more comprehensive database that records all necessary procurement data.

This present report contains an assessment of the status and implementation of the 2011 recommendations. It also includes an analysis of the impact of the changes in IMSS procurement practices that resulted from OECD recommendations for IMSS procurement outcomes. Based on this new assessment's findings, the report also outlines actions that IMSS can follow to implement any unadopted recommendations and further improve its procurement practices.

It should be noted that all recommendations are concerned solely with changes that will assist IMSS in fighting bid rigging. They do not suggest any operational changes that might make procurement processes more efficient. 10 Nor are the recommendations formulated to create savings directly for IMSS in its procurement; although, as discussed in the previous section, successfully combatting bid rigging will translate into IMSS paying less for its purchases.

Moreover, the assessment in this report does not consider policy changes that would facilitate the fight against corruption in public procurement. Even though they may have a mutually reinforcing effect, collusion and corruption are two distinct issues. As explained in Section 1.1, collusion is a horizontal relationship between bidders participating in public procurement and it does not require the involvement of a procurement official. Corruption involves a vertical relationship between one or more bidders and one or more procurement officials, who may receive bribes or rewards in exchange for designing the procurement process or altering the outcome of the process to favour a particular firm.¹¹ The 2011 OECD recommendations and the analysis and suggested follow-on actions in the present report are only aimed at fighting collusion in IMSS procurement.

The 2011 OECD report was clear that its recommendations needed to be adopted flexibly and dynamically to be effective in the fight against collusive behaviour. This is also valid for the analysis and recommendations contained in this report. No single recommendation is likely to be applicable to all tenders or completely effective in the long term. Bidders that have colluded in the past (or wish to do so in future) can be expected to react to policy changes and explore new, more inventive and secretive ways to collude. Market conditions will inevitably change over time and recommendations that are valid under certain circumstances may no longer be effective under a different scenario.

IMSS should, therefore, be vigilant and adapt its procurement strategies and processes to new market situations or market players' behaviour. In order to do so, the development of institutional knowledge of how to make procurement more competitive and avoid the risks of bid rigging is essential. To that end, the OECD has created training materials to be used by IMSS internal trainers in their regular activities. In April 2018, IMSS trainers received capacity-building support from OECD staff and international experts on how to conduct this training and IMSS procurement officials were trained by the OECD, COFECE and international experts on how to fight bid rigging.

Notes

¹ In Mexico, Federal Economic Competition Law (LFCE) prohibits absolute monopolistic practices. Article 53 of the law defines such practices as "contracts, agreements or combinations amongst competing Economic Agents, which have the purpose or effect of: i) to fix, raise, co-ordinate or manipulate the sale or purchase price of goods or services supplied or demanded in the markets; ii) to establish an obligation not to produce, process, distribute, market or acquire but only a restricted or limited amount of goods, or the provision or transaction of a limited or restricted number, volume or frequency of services; iii) to divide, distribute, allocate or impose portions or segments of a current or potential market of goods and services, by a determined or determinable group of customers, suppliers, time spans or spaces; iv) to establish, arrange or coordinate bids or abstentions from tenders, contests, auctions or purchase calls, and v) to exchange information with any of the purposes or effects referred to in the previous subsections". See www.cofece.mx/wpcontent/uploads/2018/03/Federal Economic Competition Law.pdf.

References

OECD Public Guidelines for Fighting BidRigging inProcurement, http://oecd.org/daf/competition/cartels/42851044.pdf

OECD (2018a), Fighting Bid Rigging in Public Procurement in Mexico: A Review of CFE Procurement Rules and Practices, http://oecd.org/daf/competition/OECD-CFE-report-2018.pdf

² See https://cofece.mx/wp-content/uploads/2017/11/HISTORIA IMSS 080415.pdf.

³ See <a href="https://cofece.mx/sanciona-cofece-a-cinco-empresas-proveedoras-de-guantes-de-latex-por-de-guantes-de-latex-por-de-guantes-de-latex-por-de-guantes-de-latex-por-de-guantes-de-latex-por-de-guantes-de-guantes-de-latex-por-de-guantes-de-guan coludirse-en-licitaciones-publicas-del-sector-salud and https://cofece.mx/sanciona-cofece-aproveedores-de-condones-y-sondas-de-latex-por-coludirse-en-licitaciones-publicas-del-sectorsalud. Decisions are subject to judicial review.

⁴ These characteristics include markets with a small number of competitors, high barriers to entry or where an industry is tightly organised and its members have opportunities to meet often. Other market conditions that favour bid rigging include stable market conditions, little or no technological change, few if any substitutes, and repetitive bidding. Finally, identical or simple products or services can facilitate collusion because they make the arrangements easier.

⁵ See OECD (2012b).

⁶ See OECD (2013).

⁷ See OECD (2016a).

⁸ CFE has undergone two OECD reviews. The first took place when CFE procurement processes were still regulated by the Mexican General Procurement Laws and Regulations (OECD, 2015). The second reviewed the new procurement regime adopted by CFE as a result of the 2013 Energy Reform in Mexico (OECD, 2018a).

⁹ The 2011 recommendations to modify Mexican procurement legislation are outside the scope of this review.

¹⁰ See OECD (2018b) for an assessment of IMSS operations and recommendations to improve the efficiency of its procurement processes.

¹¹ See OECD (2012a).

OECD (2018b), Second Public Procurement Review of the Mexican Institute of Social Security (IMSS): Reshaping Strategies for Better Healthcare, OECD Public Governance Reviews, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264190191-en

OECD (2016a), Fighting Bid Rigging in Public Procurement: A Review of the Procurement Rules and Practices of PEMEX in Mexico, http://oecd.org/daf/competition/OECD-PEMEX-review-2016.pdf

OECD (2015), Fighting Bid Rigging in Public Procurement in Mexico: A Secretariat Analytical Report on Compliance with OECD Standards of Procurement Legislation, Regulations and Practices in CFE, http://oecd.org/daf/competition/FightingBidRigging-Mexico-CFE-Report-2015.pdf

OECD (2012a), Background Note: Latin American Global Forum on Competition, Session III - Improving Effective Public Procurement: Fighting Collusion and Corruption, https://one.oecd.org/document/DAF/COMP/LACF(2012)15/en/pdf

OECD (2012b), Fighting Bid Rigging in Public Procurement in Mexico: A Secretariat Analytical Report on Procurement Legislation, Regulations and Practices in the State of Mexico, http://oecd.org/daf/competition/GEM Report 2012 English.pdf

OECD (2013), Fighting Bid Rigging in Public Procurement in Mexico: A Secretariat Analytical Report on Legislation, Regulations and Practices Relating to Procurement Undertaken by ISSSTE,

http://oecd.org/daf/competition/MexicoISSSTEBidRiggingENG.pdf

OECD (2011), Fighting Bid Rigging in Public Procurement in Mexico: A Secretariat Report on**IMSS** Procurement Regulations and Practices. http://oecd.org/competition/abuse/49390114.pdf

Recommendation of the OECD Council on Fighting Bid Rigging in Public Procurement, http://oecd.org/daf/competition/RecommendationOnFightingBidRigging2012.pdf

Smuda, F. (2015), "Cartel Overcharges and the Deterrent Effect of EU Competition Law", Centre for European Economic Research Discussion Paper 12-050, ZEW Centre for European Economic Research. Mannheim. http://ftp.zew.de/pub/zewdocs/dp/dp12050.pdf

2. Overview of IMSS and its legal and operational procurement framework

IMSS is the largest social-security system in Mexico. It is also the second largest public procurer and by far the country's largest public buyer of health products, accounting for up to 48% of annual public-health expenditure in Mexico. Its procurement is governed by international free-trade agreements; the Mexican Procurement Act and its bylaws; and procurement manuals, policies and guidelines. In accordance with this framework, IMSS can use a number of different procurement processes, formats and instruments: public tenders, restricted invitations, direct awards, national or international procedures, and several evaluation criteria and contract types. It organises its purchases both centrally and at local level through its delegations and high-speciality medical units.

2.1. Overview of IMSS

2.1.1. The Mexican health system and IMSS

The Mexican public health system is comprised of various institutions that provide healthcare to their affiliated members. The main social-security and social-protection institutions in Mexico are:

- 1. **IMSS**, which provides health-care cover to private, salaried, formal sector workers¹ and their families (as part of a broader social-security package);
- 2. ISSSTE, which provides social-security benefits, including health care for federal and some state employees and their family members;
- 3. **PEMEX**, which provides health care for its employees and their families;
- 4. the Social Security Institute for the Mexican Armed Forces (Instituto de Seguridad Social para las Fuerzas Armadas Mexicanas, ISSFAM) which provides cover for the members of the army and navy, employees and their families;
- 5. the Mexican System of Social Protection in Health (Sistema de Protección Social en Salud – known as public health insurance or seguro popular de salud), the publicly funded health-insurance system for the population without access to social security. It provides health care to over 57 million Mexicans who do not belong to any of the above mentioned social-security institutions, through services operated by the 32 states and a network of federally run regional and high-speciality hospitals.

As shown in Table 2.1, IMSS is the largest social-security system in Mexico. It has the highest total expenditure (around MXN 259 billion in 2017) and the highest number of affiliates in Mexico. It accounts for nearly 50% of health spending in the Mexican publichealth system.

Table 2.1. Healthcare institutions/insurers in the Mexican public-health system (2017)

	IMSS	ISSSTE	PEMEX	SEDENA	SP
Affiliated population ('000)	74 579*	12 984	764	832	54 924
Total budget (MXN million)	260 015	52 689	13 669	6 063	117 156
Health budget (MXN million)	191 577	41 142	13 669	6 063	77 270
Health budget per capita (MXN)	2 569	3 169	17 931	7 287	1 506

Note: *The population for IMSS includes around 12 418 thousand people covered by the federally funded programme IMSS-Prospera to provide basic care to population in rural and urban marginalised areas. Source: Instituto Nacional de Estadística y Geografía (Mexican National Institute of Statistics and Geography, INEGI), Derechohabiencia uso de servicios ν www3.inegi.org.mx/sistemas/sisept/default.aspx?t=msoc01&s=est&c=22594; and Presupuesto de Egresos de Federación 2017 (Mexican Federal Budget for 2017). www.pef.hacienda.gob.mx/es/PEF2017/analiticos_presupuestarios.

IMSS operates as a decentralised entity of the Mexican federal government (see Section 2.1.2) financed by the federal government, employers and employees. As well as being responsible for the healthcare services of its affiliates, it administers the insurance or cash benefits for work-related risks and illnesses, maternity, invalidity and life insurance. IMSS also runs day-care centres for affiliates' children.² In terms of healthcare, IMSS, like other public healthcare insurers, operates its own clinics and hospitals. Benefits are provided inkind (i.e. healthcare services) and services are provided at scheme-specific venues (clinics and hospitals) (OECD, 2016).

2.1.2. Organisation of IMSS

IMSS is governed by the superior bodies (Órganos superiores), which include the General Assembly (Asamblea General), the Technical Board (Consejo Técnico), the Monitoring Commission (Comisión de Vigilancia) and the General Directorate (Dirección General).

The General Assembly is the highest decision-making body of IMSS. It is composed of 30 members, organised into three groups (the federal executive, employers' organisations and trade unions) and is chaired by IMSS's director general. The General Assembly's powers include: the approval of the annual plan and budget; the annual financial statement; the annual activities report; and the IMSS Monitoring Commission's annual report.³

The Technical Board is IMSS's legal representative and executive body. It is chaired by the director general and composed by members appointed by the General Assembly representing its three groups. Among other duties, the Technical Board is responsible for establishing and removing the structure and top officers of the regulatory units (IMSS's operational departments), and IMSS's decentralised bodies, known as delegations and the sub-delegations. It is also in charge of establishing IMSS's internal rules on procurement, and approving the director general's annual actions plan and the remuneration plan for IMSS employees. 4 The Technical Board is also responsible for authorising the use of multiannual contracts in IMSS procurement of goods and services (Section 3.3).

The Monitoring Commission ensures that all funds are used for their intended purposes and is composed of members appointed by the General Assembly.

The general director, who is appointed by the president, is in charge of proposing strategic policies to the Technical Board and implementing the decisions taken by it, among other roles.5

IMSS's multiple functions are run by large regulatory units, known as "Direcciones Normativas", such as the Medical Services Unit, the Legal Unit, the Finance Unit and the Administration Unit. These are responsible for regulating and monitoring the proper provision of services and benefits to the different interest groups (i.e. members, beneficiaries, employers, providers, health professionals, and citizens in general). A secretary general is in charge of following up and co-ordinating the implementation of the decisions and special assignments from the superior bodies.

Finally, IMSS also has an internal control unit (ICU). The head of the internal control unit is appointed by the Mexican Ministry of Public Administration (Secretaría de la Función Pública, SFP). The ICU promotes the efficient management of resources allocated to IMSS; provides advice to improve internal controls, reviews and audits administrative processes; ensures that the performance of public servants adheres to the law; and applies disciplinary sanctions⁶. The head of the ICU is also responsible for representing SFP should an administrative trial arise from a procedure within IMSS.⁷

General Assembly Technical Monitoring Director Board

Figure 2.1. Organigram of IMSS

Source: Mexican National Institute for Transparency (Instituto Nacional de Transparencia - Acceso a la Información y Protección de Datos Personales, INAI),

http://portaltransparencia.gob.mx/pot/estructura/showOrganigrama.do?method=showOrganigrama&_idDepen dencia=641 (last updated, 8 March 2018).

IMSS's decentralised structure

The Institute has 35 decentralised administrative operational units known as delegations (delegaciones) in federal states throughout Mexico. Delegations represent IMSS in the states and may deal with, among other issues, the registration of employers; the affiliation of employees; the verification of the validity of social-security rights; the conclusion of contracts of health insurance for the family of affiliated members; procedures related to the payment of pensions and other cash benefits; and the authorisation, rejection and modification of pensions.

Table 2.2. Largest IMSS delegations

	Affiliated persons	Share (%)
CDMX Sur	5 507 959	8.5
Jalisco	5 403 355	8.4
Nuevo León	4 705 350	7.3
CDMX Norte	4 604 595	7.1
México Oriente	3 541 819	5.5
National total	64 662 435	

Note: Number of affiliated persons as at April 2017.

Source: IMSS.

IMSS also has high-speciality medical units (Unidades Médicas de Alta Especialidad, UMAEs). These are specialised hospitals, in which medical services for specific diseases or conditions are provided. IMSS has 25 UMAEs corresponding to different specialties; these are: 1) traumatology and orthopaedics; 2) obstetric gynaecology; 3) physical medicine and rehabilitation; 4) cardiology; 5) paediatrics; 6) oncology; and 7) psychiatry. UMAEs are autonomous from the delegations and their directors report directly to the IMSS general director and the Technical Board. Other medical facilities, such as primary care and general hospitals, are governed by delegations.

2.2. General framework for public procurement

2.2.1. Laws, regulations, guidelines and principles

IMSS's public procurement is governed by:

Mexico's political constitution and in particular Article 134, which establishes that public procurement of all types of goods and services, as well as the commissioning of public works in Mexico, must be done through sealed-bid tenders in order to achieve the best results in terms of price, quality, financing and convenience.8

International free-trade agreements⁹ that Mexico has signed with other countries and jurisdictions contain chapters on public procurement.

The Mexican Procurement Act (Ley de Adquisiciones, Arrendamientos y Servicios del Sector Público, LAASSP) regulates public procurement of goods and services and sets out the framework and procedures that public contracting agencies must use; 10 LAASSP was substantially amended in 2009.

The **Regulation of the Procurement Act** (Reglamento de la LAASSP, **RLAASSP**) is a set of bylaws implementing a number of the provisions contained in LAASSP.

The Procurement Manual of the SFP, which is assigned responsibility for the implementation of the Procurement Act. SFP's manual provides a step-by-step guide to public procurement and a library of standardised procurement forms, known as formatos de contratación or FO-CONS, for all stages of the procurement cycle (i.e. from designing to organising the tender and awarding the contract). All public agencies in Mexico subject to the LAASSP, including IMSS, have to use this manual and its recommendations in their procurement practices.

IMSS Policies and Guidelines on Procurement (Políticas Bases o Lineamientos en Materia de Adquisiciones Arrendamientos y Servicios, POBALINES) are published either every year or every two years by IMSS. These sets of policies and guidelines about procurement rules and practice, and the implementation of the provisions of procurement laws are bound by what is set out in the Procurement Act, its bylaws, and the SFP Procurement Manual.

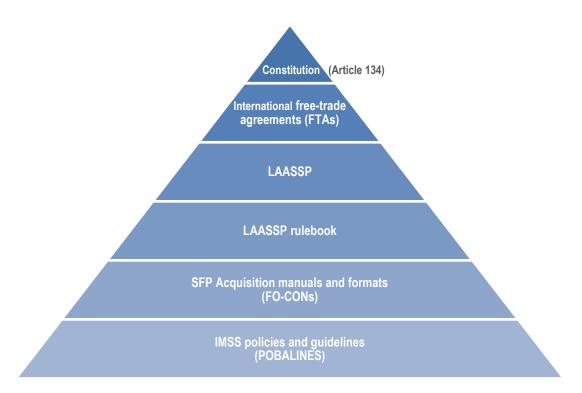


Figure 2.2. Legal and regulatory framework of IMSS public procurement

2.2.2. Other bodies

In addition to the regulatory framework and principles governing IMSS procurement, its purchasing processes may be affected by other public bodies involved in certain aspects of public procurement, the health sector or public policy. These include:

SFP, which implements the Procurement Act and so sets procurement policy at the federal level and oversees its application by public bodies. SFP is also the agency involved in administering and managing **CompraNet**, the Mexican e-procurement system.

The **Mexican Ministry of Health** (Secretaría de Salud), which is responsible for promoting health among the Mexican population. It runs the national health system (of which IMSS is part), designs the national health programme and co-ordinates its implementation with IMSS and other social-security institutes.¹¹ The Ministry of Health can have a role in promoting the participation of the public sector, the states and federal hospitals, such as the National Institutes of Health, in joint procurement for public bodies (see Section 3.2). Moreover, it is part of the commission in charge of negotiating annual prices for singlesource medicinal products with the pharmaceutical laboratories (see Section 3.2).

The General Health Council of Mexico (Consejo de Salubridad General, CSG) is a government body reporting directly to the president of Mexico. It is mandated to issue the Basic Catalogue of Inputs (Cuadro Básico de Insumos) for the first level of medical care, as well as the Catalogue of Inputs (Catálogo de Insumos) for the second and third levels. 12 IMSS can only procure medicines and inputs included in those catalogues.

Other social-security institutes (Section 2.1 and Table 2.1) run their own procurement procedures, impose their own specific requirements, and have separate delivery systems in place. Some of them are also subject to different laws and regulations, including state laws.

A number of these bodies partner with IMSS to run consolidated tenders, mainly for pharmaceutical products (see Section 3.2).

The Mexican Federal Commission for Protection Against Sanitary Risk (Comisión Federal para la Protección contra Riesgos Sanitarios, COFEPRIS) is a decentralised administrative agency of the Mexican Ministry of Health. It regulates, controls and promotes medicines and sanitary products. COFEPRIS is responsible for issuing the market authorisations (registros sanitarios) of pharmaceutical products, which certify their safety, efficacy, and quality. Pharmaceutical companies must have a valid sanitary registration for every medicine they commercialise; this certificate must be renewed every five years. Establishments engaged in the development, manufacture or preparation of medicines require a sanitary licence to operate.

The Mexican Institute of Industrial Property (Instituto Mexicano de la Propiedad Industrial, IMPI) is a decentralised administrative agency of the Mexican Ministry of Economy (Secretaría de Economía, SE), which manages the Mexican system of intellectual property rights and grants or rejects patents. IMSS, like all other public bodies, only purchases patented medicines with a valid IMPI registration.¹³

The Mexican Federal Competition Commission (Comisión Federal de Competencia Económica, COFECE) is an autonomous agency, created – in its current form – by the 2013 constitutional reform. ¹⁴ It is responsible for enforcing the Federal Competition Act in all sectors of the economy except telecommunications and broadcasting. 15 It promotes freemarket access and competition and prevents, investigates and combats anticompetitive practices, mergers that raise competition concerns and other restrictions on the efficient functioning of markets. Within COFECE, the Directorate General for Investigations of Monopolistic Practices (Dirección General de Investigación de Practicas Monopólicas Absolutas) is responsible for investigating instances of bid rigging in public procurement.

Box 2.1. Trade associations in the pharmaceutical industry

Most of the medicine manufacturers and wholesalers selling medicines and medical consumables to IMSS belong to trade associations.

The Mexican Chamber of the Pharmaceutical Industry (Cámara Nacional de la Industria Farmacéutica, CANIFARMA) is the Mexican pharmaceutical industry's main trade association. Created in 1946, it currently has 186 members, including companies that manufacture medicines (patented and generics) for human and veterinary use, as well as companies that produce medical devices.

The National Association of Medicine Manufacturers (Asociación Nacional de Fabricantes de Medicamentos, ANAFAM) is a group of 26 national pharmaceutical companies. According to its website, ANAFAM members produce 60% of all medicines sold to the public sector and 17% of all medicines sold to the private sector in Mexico. One of ANAFAM's objectives is to promote generics.

The National Association of Health Input Distributors (Asociación Nacional de Distribuidores de Insumos para la Salud, ANDIS) is an organisation composed of companies that specialise in marketing, distribution, logistics, warehouse management and inventory control. The majority of IMSS's largest wholesale distributors are part of this association, except Fármacos Especializados, currently IMSS's largest distributor.

The Mexican Association of Industries for Pharmaceutical Research (Asociación Mexicana de Industrias de Investigación Farmacéutica, AMIIF) represents more than 40 national and international pharmaceutical and biotech companies operating in Mexico. Its mission includes promoting pharmaceutical research.

The National Association of Distributors of Medicines (Asociación Nacional de Distribuidores de Medicinas, ANADIM) is an industry association representing 19 Mexican companies active in the regional distribution and retail sale of medicines, perfumes and personal-care products. According to its website, ANADIM members accounted for 54.7% of the national pharmaceutical retail market in 2015 (by value).

The Mexican Association of Interchangeable Generics Manufacturers (Asociación Mexicana de Fabricantes de Medicamentos Genéricos Intercambiables, AMEGI) is a body for generic producers. It has six members and, according to its website, its members produce 80% of the generics bought by the health sector.

The Mexican Association of Innovative Medical Equipment Industries (Asociación Mexicana de Industrias Innovadoras de Dispositivos Médicos, AMID) represents 25 of the largest medical equipment producers in the world, as well as the sector's leading innovation firms.

Source: Adapted from OECD (2018c).

2.3. Overview of IMSS's public procurement

Despite its decentralised governance structure, IMSS has now largely centralised its procurement functions (see Section 3.1). Most of its purchases of goods, medicines and medical consumables, in particular, are organised and undertaken centrally. In specific circumstances, however, delegations and UMAEs are still in charge of acquiring certain goods and services, including:

- When procurement has not been centralised because the delegation or UMAE is considered better placed to organise it. This may be due to the local nature of goods and services required. For example, catering services in hospitals are contracted at the delegation or UMAE level due to differences in food preferences across Mexican states.
- When the acquisition has been centralised, but IMSS central office authorises the delegation to purchase the specific good or service on a temporary basis. This may be the case when centralised tenders have been declared void, or when a centralised procurement procedure is ongoing and the delegation urgently needs the relevant goods or services to provide healthcare assistance to its affiliated members.
- Emergency low-value purchases when a medical unit within a delegation cannot fulfil a prescription to a patient or needs items (other than medicines) that have not been delivered (see Box 3.1).

At the central level, the Administration Directorate is in charge of procuring all IMSS's centrally sourced goods and services, through its procurement unit (Coordinación de Adquisición de Bienes y Contratación de Servicios, CABCS). This unit is also responsible for organising the consolidated tenders IMSS runs jointly with other public bodies (see Section 3.2). The supply unit (Coordinación de Control de Abasto) manages the execution of the contract signed by IMSS. Finally, the market-research unit (Coordinación de Investigación de Mercados) has also been a separate part of the Administration Directorate since 2016 (see Sections 2.4 and 7.1).

Administration Directorate Market Research Procurement Supply Unit Unit

Figure 2.3. Organisation of IMSS procurement units at a central level

http://portaltransparencia.gob.mx/pot/estructura/showOrganigrama.do?method=showOrganigrama&_idDepen dencia=641 (last updated, 8 March 2018).

At the delegation level, the Supply and Equipment Unit (Coordinación de Abastecimiento y Equipamiento, CAE) and its procurement department (Oficina de Adquisición de bienes y Contratación de Servicios), its planning and control department (Oficina de Planeación y Control) and its contracts department (Oficina de Contratos) are collectively responsible for the procurement of goods and services and the management of supply contracts (Figure 2.4).

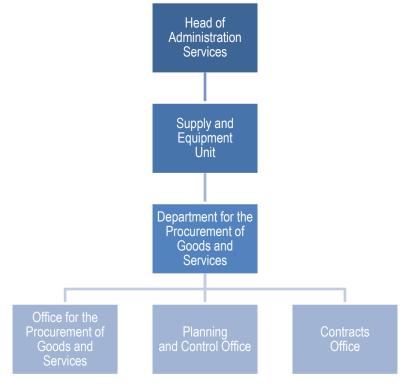


Figure 2.4. Organisation of IMSS procurement units at delegation level

Manual de Organización de la Jefatura de Servicios Administrativos (2017),www.imss.gob.mx/sites/all/statics/pdf/manualesynormas/1000-002-006.pdf.

Similarly, at the UMAE level, the Administration Unit (Dirección Administrativa), particularly its supply department (Departamento de Abastecimiento) and procurement office (Oficina de Adquisiciones), are in charge of the procurement of goods and services and the management of supply contracts.

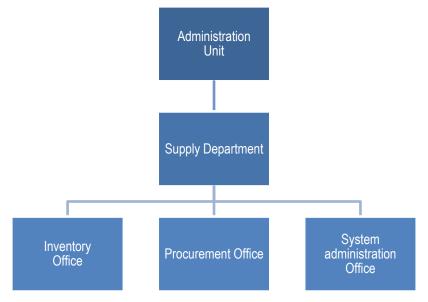


Figure 2.5. Organisation of IMSS procurement units at UMAE level

Source: Manual de Organización de la Unidades Médicas de Alta Especialidad (2016), www.imss.gob.mx/sites/all/statics/pdf/manualesynormas/0500-002-001.pdf.

Most elements of the procurement process that IMSS follows are set out in and regulated by the Procurement Act and its regulations. The process can be broken down into three distinct stages: 1) pre-tender; 2) tender, including the tender award; and 3) post-award. These stages are presented below, along with a discussion of the scope of each, the actions taken, and those parts of IMSS administration that are involved.

A number of the steps that IMSS undertakes in the course of designing and running its tenders involve the use of CompraNet, an e-procurement platform set up and maintained by SFP. CompraNet acts both as a public and searchable repository of information on past and future tenders, and a platform that enables electronic tenders for all participating public bodies (i.e. those public agencies whose procurement is subject to the LAASSP, given that CompraNet's use is mandatory).

Pre-tender Tender procedure Requirement planning Post-award · Market research Call for tenders monitoring Procurement procedure Clarification meeting • Evaluation criteria · Evaluation of bids · Contract framework Contract award · Procurement instruments

Figure 2.6. IMSS procurement process

2.3.1. Pre-tender

The pre-tender phase is used to define the characteristics and parameters of the procurement process: from establishing the IMSS's needs to deciding which procurement tools are most appropriate.

Requirement planning

The procurement process starts with aggregating all IMSS requirements for the year. IMSS local procurement managers (at delegations and UMAEs) define their needs – as submitted by the requesting units – and submit a procurement plan to CABCS by 31 December of each year. CABCS then formulates the IMSS Annual Procurement Plan, a single integrated procurement plan that is made public when it is posted on the IMSS and CompraNet websites by 31 January.

Market research

In order to design an effective tender, IMSS conducts a market investigation to ascertain the prevailing market conditions for the goods and services it intends to procure. This market intelligence can include the number of suitable potential suppliers, the country of origin for proposed supplies, and an estimate of current prices. 16

Market studies can be used, for example, to:

- inform the decision to group several goods or services in a single lot;
- determine non-acceptable and maximum reference prices (see "Evaluation criteria" below);
- establish whether it is appropriate to use reverse auctions;
- determine the appropriate choice of procurement procedure to be used (i.e. whether a public tender is required or one of the exceptions allowed by the Procurement Act can be used instead);
- determine the geographic coverage of the tender (i.e. whether the tender is reserved for Mexican suppliers or can include suppliers from countries with which Mexico has signed a free-trade agreement or any international supplier).¹⁷

In order to carry out its market studies, IMSS must use information on CompraNet; information requested from specialised bodies, trade unions, associations of suppliers, manufacturers, dealers, wholesalers and distributors; and information collected from the Internet, during phone interviews or through other channels.

In addition, the Market Research Unit in co-operation with the Medical Unit (Dirección de Prestaciones Médicas), which is in charge of regulating the provision of health services and overseeing care delivery, gathers information on therapeutic alternatives for certain medicines.

Selection of procurement procedure

IMSS can use one of the following three procurement procedures:

- 1. public tenders;
- 2. **restricted invitations** (invitations to at least 3 suppliers);
- 3. **direct contract awards** to a specific supplier. 18

The Procurement Act mandates that public tenders are to be used as a general rule. 19 Restricted-invitation and direct-award procedures are considered exceptions by the Procurement Act. As such, they can only be used under specific conditions; for example, if there is only one supplier or patent holder; when a public tender cannot be organised within the appropriate time period due to unforeseeable circumstances or a force majeure; when a contract awarded through a public tender has been rescinded (in which case it can be assigned directly to the second lowest bidder, as long as the difference with respect to the initial winning bid is less than 10%); or when a previous public tender was declared void.20

In addition to these circumstances, IMSS can procure goods and services without using a public tender if the value of the contract is below a certain amount (set out in the federal budget) and the total value of contracts awarded using this exception does not exceed 30% of the procurement body's annual procurement budget.

IMSS must also determine whether it can allow non-Mexican bidders to participate in the tender.²¹ Tenders can be:

- 1. National, in which only Mexican suppliers are allowed to participate. IMSS can apply one of the reserves included in the public-procurement chapters of FTAs signed by Mexico, which provides that a specified amount of money can be exempted from a FTA and purchased nationally.
- 2. International under a FTA, in which only Mexican suppliers and suppliers originating from countries with which Mexico has signed a FTA are allowed to participate.
- 3. **Open international**, in which all interested suppliers can participate, irrespective of their origin. IMSS can organise an open international tender if there are no suppliers in Mexico or in countries with which Mexico has signed a FTA or (if they exist) they are unable to satisfy the agency's needs (e.g. in terms of volumes or quality) or their price is not acceptable.

Evaluation criteria

IMSS must also decide which criteria will be used to award the contract. The Procurement Act provides the following:

- 1. The point-based evaluation criterion, under which different components of each bid are weighted and the contract is awarded to the bid with the highest score. These components can be qualitative features of the products or services, or certain characteristics of the supplier (for example, staff training and skills or equipment used at its premises).
- 2. Similar to the point-based criterion, the **cost-benefit evaluation criterion** sees the "benefits" of the different components monetised to allow for a cost/benefit analysis of each bid.
- 3. The **binary evaluation criterion**, under which the contract is awarded to the bid that satisfies the technical requirements in the tender and has the lowest price. For this criterion to be used, the technical specifications and requirements of the product(s) or service(s) that IMSS is procuring must be clearly set out in the tender. For a bid to be accepted, its price must fall within a certain range determined by the "convenient" and "non-acceptable" prices.

The law considers different prices that should be calculated during the procurement process when the binary evaluation criterion is applied:

- 1. Non-acceptable price.²² This is a price ceiling: IMSS will not accept any bids with a price above this ceiling. The non-acceptable price is set at 10% above the median of all prices collected during the market study (or, if that is not possible, the average of all approved bids at the tender stage).
- 2. Convenient price.²³ This is a price floor: IMSS will not accept any bids with a price below this floor. The convenient price is set at 60% of the average price of all the bids that have been deemed technically acceptable at the tender stage.²⁴
- 3. **Maximum reference price** (MRP).²⁵ This is the reserve price: in standard tenders (i.e. not auctions), this is the price used as the basis on which bidders will offer discounts. Unlike for non-acceptable and convenient prices, ²⁶ the reference price is included in the call for tenders.

Point-based and cost-benefit evaluation criteria are preferable to using price-only bids to decide winners, whether in the context of public tenders or auctions (see Section 7.2).²⁷ Indeed, their use is mandatory when the goods or services being procured are technically highly specialised or innovative.²⁸

Contract framework

While a typical contract involves a set price and quantity, the Procurement Act lists other alternative contractual forms. For example, open contracts can be used when goods (or services) are routinely needed. Open contracts specify minimum and maximum volume (or value) of the goods and services to be purchased and a complete description of the goods and services, including their unit prices. IMSS regularly makes use of this contract form: approximately 75% of the contracts it awarded in the period 2009-2016 were open contracts.29

IMSS also has the option to decide to procure goods and services through an already existing **framework agreement.** These are put in place by SFP, and purchases undertaken using one are exempt from the requirement for a public-tender procedure.³⁰

IMSS can also allow aggregation of requirements or capacities on the buyer or supplier side. It can **consolidate** its procurement requirements with those of other agencies³¹ or opt to allow the submission of **joint bids** by specifying the necessary requirements for doing so in the tender documents.³²

Procurement instruments

A standard procedure for IMSS procurement involves inviting sealed bids, both for public tenders and restricted invitations. The offers are formulated as a discount to the MRP published in the call for tenders.

The Mexican Procurement Act stipulates that agencies may also use auctions for their procurement procedures. IMSS may opt to use a reverse-auction mechanism (ofertas subsecuentes de descuento, OSD), which allows bidders to offer additional (sequential) discounts after their initial bids have been lodged and opened, and so improve their offer.³³ The two-stage bidding process for reverse auctions is as follows: 1) participants submit their initial offers; 2) after the opening of the offers, the lowest price is revealed 24 hours before the second-stage bidding and is used as the baseline for the second stage; 3) bidders are invited to offer additional discounts in sequential rounds; 4) the bidder offering the highest discount is awarded the contract. The MRP is not used (or communicated to the bidders) when reverse auctions are run.

Reverse auctions are only used if the pre-tender research conducted by IMSS suggests that the relevant market is sufficiently competitive. The SFP's procurement guidelines specify that a market is deemed to be sufficiently competitive if there exist at least five national or foreign suppliers capable of supplying the required volumes. Moreover, reverse auctions cannot be used when any micro-, small- or medium-sized firms (individually) participate in the tender

Finally, during the pre-tender phase, IMSS specifies whether the tender will be fully and exclusively **electronic**, face-to-face ("in person") or a combination of both ("mixed").³⁴

2.3.2. Tender procedure

A public tender starts with the **publication of the call for tenders** on the IMSS website and CompraNet.³⁵ Prior to that, IMSS may (but is not obliged) to publish a draft call for tenders and invite comments from interested parties.³⁶

As a next step, IMSS must hold at least one junta de aclaraciones or clarification meeting to respond to comments from and provide clarifications to potential bidders.³⁷ Clarification meetings for consolidated purchases, in particular, are also broadcast on social networks, such as YouTube.38

At the concluding phase of the tender process, IMSS receives and opens the bids³⁹ and takes a decision as to which bidder is awarded the contract. 40 The opening and evaluation of bids and the award of the contract are public acts and minutes of these events have to be published on CompraNet. The contract is awarded to the offer that both complies with all the legal, technical and economic requirements specified in the tender documents, and:⁴¹

- obtains the best score when a point-based mechanism or a cost-benefit evaluation criterion is used;
- is the lowest bid if the binary criterion is used provided the offer price is above the convenient price and below the non-acceptable price; or
- is the lowest bid when a reverse auction is used, if it is also technically and economically acceptable.

Pursuant to the Procurement Act, IMSS must give preference to goods that are at least 50% of Mexican origin. This is ensured by allowing a 15% margin to the price/economic offer of Mexican products over those imported.

The contract can be awarded to a single bidder or to more than one bidder ("split awards"). If no bid fulfils the necessary requirements or the prices offered are unacceptable, the procedure may be declared void.⁴² In this case, the agency may decide to organise a second tender or use one of the exceptions to the public-tender procedure, such as a restricted invitation or a direct award of the contract to a specific supplier.⁴³

2.3.3. Post-award monitoring

A financial guarantee that the contract will be fulfilled, in the form of a performance bond, is required from suppliers. 44 IMSS's Supply Unit monitors the performance and execution of the contract (Figure 2.3) and may impose **penalties** to the supplier(s) if there are delays in the provision of goods and services, which are attributable to them⁴⁵ and **terminate** a contract if the supplier fails to comply with its obligations.⁴⁶

There is also potential for **debarment** if a provider:⁴⁷

- has had more than one contract rescinded for causes attributable to it during a twoyear period;
- is late in the delivery of goods and services for causes attributable to it, as long as IMSS has suffered serious damages; and,
- does not sign a contract awarded by IMSS without justification and for causes attributable to it.

2.4. Developments since 2012

Following is an overview of changes in the economic and regulatory environment in which IMSS operates. It highlights relevant changes in the Mexican health industry, the economy more generally, and the legal and regulatory framework of public procurement. These developments are likely to have had an impact both in the way IMSS organises its procurement and on procurement outcomes since 2012.

2.4.1. The Mexican economy

Between 2011 and 2017, the Mexican economy has been growing at an annual average rate of 2.9% (Figure 2.7). It has experienced a period of relatively stable price inflation, with an average annual rate of 3.5% (Figure 2.8), even as the Mexican peso depreciated against the US dollar by 59% (Figure 2.10). Although inflation ranged from 2.5 to 4.3% until 2016, in 2017 there has been a significant but temporary increase in the rate of inflation, due – to a large extent – to the accumulated depreciation of the peso and progressive liberalisation of domestic fuel prices. The compound inflation rate since 2011 has been 30.5% – in other words, prices have increased by almost a third since the 2011 Report.

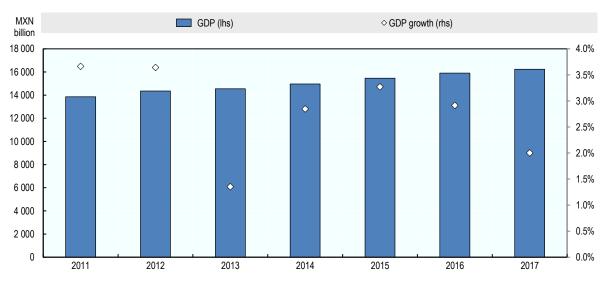


Figure 2.7. Mexican Gross Domestic Product (GDP)

Note: Gross Domestic Product (expenditure approach) at constant prices; OECD base year = 2010. 2016 provisional value; 2017 estimated value

Source: OECD.Stat, http://stats.oecd.org/Index.aspx?DataSetCode=SNA.

7% 6% 5% 4% 4% 4% 3% 3% 3% 2% 1% 0% 2011 2012 2013 2014 2015 2016 2017

Figure 2.8. Mexican annual inflation rate

Note: Year-on-year inflation rate, at June of each year.

Source: INEGI Calculadora de Inflación,

http://inegi.org.mx/sistemas/indiceprecios/CalculadoraInflacion.aspx.

Mexico has historically been a major producer and exporter of crude oil and its economy is sensitive to the commodity's price fluctuations. However, since 2015 Mexico has become a net importer of oil, which has also had an impact on its economy. As shown in Figure 2.9, the price for crude oil has more than halved since highs in 2011/2012. Lower crude oil prices affectthe public sector in particular, since oil revenues are an important contributor to government finances. In addition, lower revenues from oil have lowered demand for the Mexican currency and contributed to its depreciation. This depreciation is of particular relevance to IMSS, given its reliance on imported goods to satisfy its needs, and the fact that many of the goods it purchases use imported inputs.

USD

Figure 2.9. Average annual barrel price of oil imports into the US

Source: International Energy Agency (IEA), www.iea.org/statistics/monthlystatistics/monthlyoilprices.

Figure 2.10. US dollar and Mexican peso daily exchange rate (USD/MXN)

1 January 2011 - 31 December 2017

Source: Banco de México,

www.banxico.org.mx/SieInternet/consultar DirectorioInternetAction.do?accion=consultar Cuadro&id Cuadro=consultar Cuadro=CF102§or=6&locale=es.

2.4.2. The health and pharmaceutical industry in Mexico

In the period 2011-2016, total health spending was around 6% of Mexican GDP. Likewise public-health expenditure remained constant at about half of the total (Figure 2.11). As a share of the government's total spend, it has also been stable during the same period, at 11.5%.48

Total health expenditure (% of GDP) Public health expenditure (% of GDP) 7% 6% 5% 4% 3% 2% 1% 0% 2011 2013 2014 2015 2016 2012

Figure 2.11. Health expenditure in Mexico, as a share of GDP

Note: 2016 estimated value.

Source: OECD.Stat, http://stats.oecd.org/index.aspx?DatasetCode=SHA.

IMSS, which provides cover for approximately half the population of Mexico, is by far the largest public buyer of health products (including medicines) and services. Its spending accounted for 44-48% of annual public health expenditure in the period 2011-2017 (Figure 2.12).

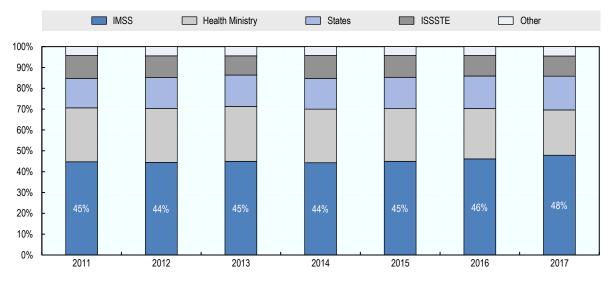


Figure 2.12. Mexican public spending in health by institution

Note: The states and the Ministry of Health jointly account for health spending for the population not covered by social security.

Source: Secretaría de Hacienda y Crédito Público (2018).

Figure 2.13 shows that the share of total pharmaceutical spending as a part of health spending decreased, from 31.5% in 2011 to 27.2% in 2015 (the last year for which data is

2015

2014

available). This trend has been observed despite the fact that medicine prices rose at a faster rate than both health-sector prices and general prices, as measured by the consumer price index.⁴⁹ Over the past seven years (January 2011-December 2017), medicine prices increased at an average annual rate of 4.6%, resulting in a total rise of 43% over the period. Over the same period, general prices only increased by 31%, with average annual growth of 3.6%.

40% 35% 31.5% 28.8% 28.2% 30% 27 4% 27.0% 27.2% 25% 20% 15% 10%

Figure 2.13. Pharmaceutical spending as a share of total health spending in Mexico

Source: OECD data, https://data.oecd.org/healthres/pharmaceutical-spending.htm.

2012

2011

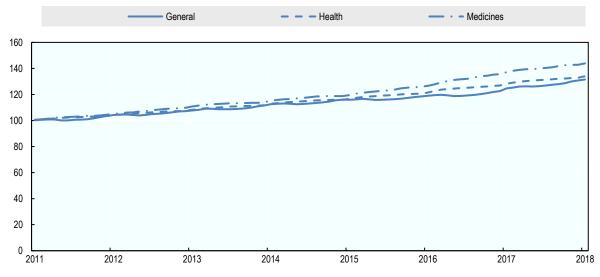


Figure 2.14. Mexico consumer price indexes, 2011-2017

2013

Source: INEGI, Índices de Precios al Consumidor.

5%

0%

2010

There is a dichotomy in private- and public-sector spending on single-source and patented medicines. According to a 2013 report by the Fundación Mexicana para la Salud, public spending on patented medicinal products was close to 40% whereas the equivalent share for the private sector was just under 10% (see Table 2.3). This is due to the fact that the public sector is the main provider of more expensive specialised treatments (such as oncology) and prescription medicines, in contrast to out-of-pocket (OOP) expenditures that tend to relate mostly to cheaper day-to-day non-prescription medicines.

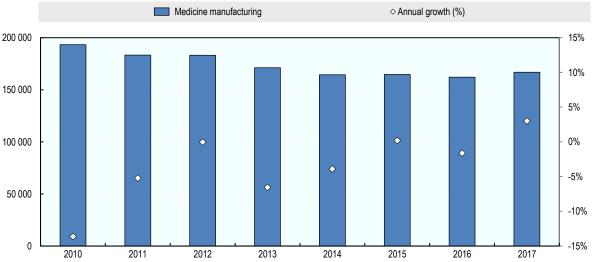
Table 2.3. Share of single-source medicines in the public and private sector (2012)

	Publ	Public sector		Private sector	
	Value	Volume	Value	Volume	
Patented medicines (%)	38.7	0.9	9.9	1.8	
Generic medicines (%)	61.3	99.1	90.1	98.2	

Source: Fundación Mexicana para la Salud (2013).

The manufacture of medicines in Mexico has declined steadily. According to INEGI, the value of medicine manufacturing, measured in real terms, decreased at an average annual rate of 3.5% between 2010 and 2017 (Figure 2.15). To make up the balance, imports of all medicines – including both on and off-patent – grew, in real terms, at an average annual rate of 9% during the same period (Figure 2.16).

Figure 2.15. Medicine manufacturing (2013 MXN, millions)



Source: INEGI, Banco de Información Económica, Sistema de Cuentas Nacionales de México.

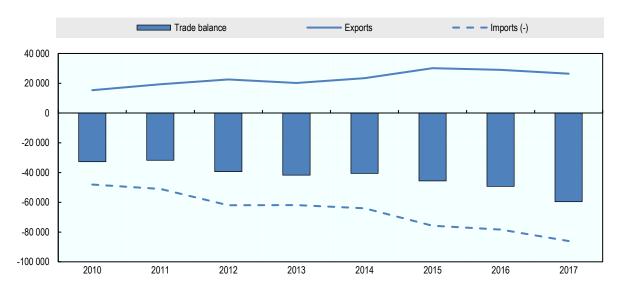


Figure 2.16. Imports and exports of medicines (2013 MXN, millions)

Note: Import and export values were obtained from INEGI's External Sector Statistics, including values in the chapter "Pharmaceutical products", which is part of section VI, "Products from the chemical industry or related industries", minus the value of the subchapter "Wadding, gauze, bandages". The values are monthly thousands of USD from January 2010 until December 2017. The monthly FIX exchange rate for MXN to USD from Banxico was used. After obtaining the value in thousands of MXN, each monthly value was deflated using INEGI's producer price index. Finally, an annual estimation was obtained considering the sum of the monthly

Source: INEGI, Banco de Información Económica, Sector Externo.

According to data from COFEPRIS, 50 241 different pharmaceutical companies held valid sanitary licenses for manufacturing medicines (allopathic and homeopathic) in Mexico, including nine that also manufacture raw materials. Additionally, 36 pharmaceutical companies manufactured only raw materials. The top-10 leading pharmaceutical companies accounted for 42% of the medicine manufacturing market (by value) in 2014, of which two were Mexican-owned companies (Laboratorios Sanfer and Laboratorios Senosiain) (OECD, 2018).

Table 2.4. Top-10 leading pharmaceutical companies by share of value in the total market (August 2014)

Company	Country of origin	Market Share (%)
Pfizer	United States	6.4
Sanofi	France	5.7
Bayer	Germany	5.4
Novartis	Switzerland	4.6
Schering-Plough*	United States	4.4
Boehringer Ingelheim	Germany	3.8
Sanfer	Mexico	3.2
Merck-Serono	Germany	3.1
Johnson & Johnson	United States	3
Laboratorios Senosiain	Mexico	3

*In November 2009, Merck & Co., Inc. and Schering-Plough merged Note: www.sec.gov/Archives/edgar/data/310158/000089882209000096/pressrelease.htm). The statistics in this table still use the name Schering-Plough.

Source: PharmaBoardroom (2015).

Most laboratories neither distribute nor trade their products directly to final retailers (for example, pharmacies) or public agencies (such as IMSS, ISSSTE, public sector/states, federally run hospitals), but rather sell them through wholesale distributors.⁵¹ Those wholesalers manage, store, transport and deliver the final products. Wholesalers sometimes provide additional services, such as granting credits and handling payment processes.

IMSS's largest suppliers are wholesale distributors, of which 5 have been among the 10 largest suppliers to IMSS every year since 2009: Grupo Fármacos Especializados; Distribuidora Internacional de Medicamentos y Equipo Médico (DIMESA); Farmacéuticos Maypo (Maypo); Comercializadora de Productos Institucionales (CPI); Ralca (Ralca). Fármacos Especializados has been the largest supplier every year, except for 2012, with a market share ranging from 9 to 25%. Since 2012, Comercializadora Pentamed has been the only new entrant in the top 10 suppliers of IMSS.⁵²

As shown in Figure 2.17, the value share of IMSS purchases from the five largest wholesalers has been consistently above 40%; and the value share of IMSS purchases sourced from the 10 largest wholesale suppliers has been over 60% (with the exception of 2010).

Top-5 suppliers Top-10 suppliers 100% 90% 80% 70% 60% 50% 40% 30% 20% 10% 0% 2010 2011 2012 2013 2014 2015 2016

Figure 2.17. Share of value accounted for by IMSS's top-5 and top-10 suppliers

Source: OECD analysis of IMSS tender data.

IMSS spending in 2016 is shown in Table 2.5: 63% relates to goods, while 48% of the overall value of IMSS spending is on medicines and vaccines. Most medical goods are sourced centrally, while non-medical goods and equipment are purchased by each delegation. In the case of services, only integrated services (accounting for 10% of all spending on services) have been centrally procured to date.

Table 2.5. IMSS spending on procurement, 2016

	Amount (MXN'000)	%
Goods	43 914 284	63%
Medicines	31 187 237	71%
Medical material	4 383 147	10%
Non-therapeutic goods	3 718 851	8%
Vaccines	1 792 404	4%
Psychiatric medicines	910 658	2%
Laboratory material	898 980	2%
Imaging material	594 230	1%
Milk formulas	267 025	1%
Medical equipment	93 864	0%
Furniture	66 009	0%
Other goods	1 878	0%
Services	26 250 988	37%
Contracted staff	7 791 202	30%
General services	7 470 520	28%
Maintenance	5 956 822	23%
Integrated services	2 559 869	10%
Other services	2 317 979	9%
Prospera programme	154 596	1%
Total	70 165 272	

Note: Spending on public works is excluded. General services include catering, security and nurseries. Totals may not add up due to rounding.

Source: Adapted from IMSS Procurement Portal, http://compras.imss.gob.mx.

2.4.3. The legal and regulatory framework

Amendments to the Procurement Act

Since the publication of the 2011 Report, the Procurement Act has been amended four times. None of these amendments has affected IMSS procurement, as they were mostly concerned with: 1) excluding public-private partnerships (PPPs) from the scope of the act; 2) similarly, exempting PEMEX and CFE's procurement from the scope of the act; and 3) introducing gender-equality objectives to procurement policies.

Amendments to the Competition Act

The Competition Act, and competition policy in Mexico more generally, has been significantly overhauled since the publication of the 2011 Report.

First, amendments in 2011 and 2012 established the level of financial sanctions for anticompetitive behaviour.53 Second, following the constitutional reform of 2013. Mexico's competition policy and institutional set-up was substantially strengthened. The reform created two competition authorities, COFECE and IFT, as well as specialised tribunals dealing with competition cases. Moreover, a new Competition Act was enacted in May 2014.

The competition authorities were entrusted with new powers of investigation and enforcement. The new Competition Act reinforced criminal sanctions for collusive practices, including bid rigging⁵⁴ and introduced criminal sanctions for tampering with an investigation.

Notes

- ¹ Self-employed workers, informal-sector workers and the unemployed can choose to be insured through a voluntary insurance scheme with IMSS.
- ² Article 251 of the Mexican Social Security Act.
- ³ Internal regulation of the Mexican Social Security Institute (Reglamento interior del Instituto Mexicano del Seguro Social).
- ⁴ Ibid.
- ⁵ Ibid.
- ⁶ See Article 37 of the Mexican Public Administration Law (Lev Orgánica de la Administración Pública Federal).
- ⁷ See Article 37 of the Mexican Public Administration Law (Ley Orgánica de la Administración Pública Federal).
- ⁸ Article 134 of the Political Constitution of Mexico states that: "Economic resources available to the federal, state and municipal governments, for the Federal District, and the politicaladministrative bodies belonging to it, shall be managed with efficiency, effectiveness, economy, openness and honesty in order to comply with the purposes for which they are intended. [...] Any acquisitions, leases and transfers of any kind of goods, the rendering of services [...] shall be awarded or carried out through public bids, through the issuance of public summons so that solvent propositions may be submitted in a closed envelope, which shall be opened in public with the aim of assuring the best conditions available in benefit of the State in regard to price, quality, financing, opportunity and all other pertinent circumstances." ("Los recursos económicos de que dispongan la Federación, los estados, los municipios, el Distrito Federal y los órganos político-administrativos de sus demarcaciones territoriales, se administrarán con eficiencia, eficacia, economía, transparencia y honradez para satisfacer los objetivos a los que estén destinados. Las adquisiciones, arrendamientos y enajenaciones de todo tipo de bienes, prestación de servicios de cualquier naturaleza [...] se adjudicarán o llevarán a cabo a través de licitaciones públicas mediante convocatoria pública para que libremente se presenten proposiciones solventes en sobre cerrado, que será abierto públicamente, a fin de asegurar al Estado las mejores condiciones disponibles en cuanto a precio, calidad, financiamiento, oportunidad y demás circunstancias pertinentes.")
- ⁹ As of May 2018, Mexico is party to 12 FTAs with 46 countries; see www.gob.mx/se/acciones-yprogramas/comercio-exterior-paises-con-tratados-y-acuerdos-firmados-con-mexico.
- ¹⁰ The Mexican Public Works Act (Ley de obras públicas y servicios relacionados con las mismas, LOPSRM) covers the commissioning of public works and related services. In keeping with the 2011 Report, the present review focuses on the procurement of goods and services, because that, rather than commissioning public works, is the majority of IMSS's procurement activity.
- ¹¹ For example, IMSS is under an obligation to provide free of charge those medicines designated as a priority within the national health programme (such as vaccines and contraceptives) even to non-affiliated members of the public.
- ¹² The first level of medical care includes outpatient services in primary-care settings. The second level of medical care focuses on specialised outpatient services, hospitalisation and urgencies. The third level of medical care relates to high-speciality outpatient and inpatient care.
- 13 www.diputados.gob.mx/LeyesBiblio/regla/n156.pdf.

- ¹⁴ The Commission was first created in 1994 as the CFC. As a result of a constitutional amendment in 2013, a new competition law was introduced; it reformed the nature, functions and name of the Commission, which was renamed COFECE.
- ¹⁵ The Mexican Federal Telecommunications Institute (Instituto Federal de Telecomunicaciones, IFT) has competency for enforcing the Competition Act in those sectors.
- ¹⁶ Article 26 of the Procurement Act.
- ¹⁷ Article 29 of the RLAASSP.
- ¹⁸ Article 26 of the Procurement Act.
- ¹⁹ Article 27 of the Procurement Act stipulates that public tenders can also be carried out remotely using electronic bidding.
- ²⁰ Conditions for the use of exceptions to the public tender procedure are set out in Article 41 of the Procurement Act.
- ²¹ Article 28 of the Procurement Act.
- ²² Article 2 of the Procurement Act.
- ²³ Ibid.
- ²⁴ According to the Procurement Act, the discount factor that can be applied to the average price of eligible bids cannot be lower than 40%. IMSS has opted to use this lowest permitted level of discount.
- ²⁵ Article 29 of the RLAASSP.
- ²⁶ The LAASSP stipulates that these prices need to be part of the contract-award records if they are part of the assessment in dismissing an offer. Although procurement agencies are not explicitly precluded from publishing the convenient and non-acceptable prices, IMSS's calls for tenders do not typically include them.
- ²⁷ Article 29, subsection XIII of the Procurement Act.
- ²⁸ Article 36 of the Procurement Act.
- ²⁹ Article 47 of the Procurement Act. The minimum volume (or value) has to be at least 40% of the maximum. OECD analysis of IMSS tender data shows a 40% minimum-to-maximum quantity ratio in 38% of the open contracts that IMSS awarded during the period 2009-2016. The share of open contracts with a 50% minimum-to-maximum ratio was 52% in the same period.
- ³⁰ Article 41 of the Procurement Act and Article 14 of the Regulation of RLAASSP. See www.gob.mx/sfp/acciones-y-programas/1-3-5-contratos-marco.
- ³¹ Article 17 of the Procurement Act.
- ³² Article 34 of the Procurement Act and Article 44 of the RLAASSP.
- ³³ Article 28 of the Procurement Act.
- ³⁴ Article 56 of the Procurement Act.
- ³⁵ Article 26 of the Procurement Act.
- ³⁶ Article 29 of the Procurement Act.
- ³⁷ Article 33 of the Procurement Act.
- ³⁸ See www.voutube.com/user/segurosocialimss/videos?sort=dd&view=0&shelf id=2.
- ³⁹ Article 35 of the Procurement Act.

- ⁴⁰ Article 26 and Article 37 of the Procurement Act.
- ⁴¹ Article 36 bis of the Procurement Act.
- ⁴² Article 38 of the Procurement Act.
- ⁴³ Article 41, subsection VII of the Procurement Act.
- ⁴⁴ Article 48 of the Procurement Act.
- ⁴⁵ Article 45 of the Procurement Act.
- ⁴⁶ Article 54 of the Procurement Act
- ⁴⁷ Article 50 of the Procurement Act.
- ⁴⁸ World Bank, https://data.worldbank.org/country/mexico.
- ⁴⁹ INEGI computes the Mexican consumer price index (CPI) on a monthly basis using a Laspeyres formula that weights the following categories of goods and services: food, beverages and tobacco; clothing, footwear and accessories; housing costs; furniture, appliances and household goods; health and recreation; and other services. The CPI for medicines weights different categories of medicines. Generally, the Laspeyres index estimates the variation in the value of a basket of products under the assumption that the quantities bought of every article composing the basket are the same as in the base period. When new weights are incorporated to the index, in order to have a historical series, it is necessary to link the newly weighted index to the earlier index series. In order to do this, a linking factor is constructed: the quotient between the index with the earlier weights and the newly weighted index with the new weights for the same given period (so creating an overlap). The factor is then multiplied by the newly weighted index in the periods after the overlapping period.
- ⁵⁰ As at 17 March 2017.
- ⁵¹ In the case of single-source innovator pharmaceuticals that enter the market, laboratories apply for inclusion in IMSS's institutional catalogue in parallel with their submission for inclusion in the sectorial catalogue (Cuadro Básico de Insumos del Sector Salud). Once the product has been included in the sectorial catalogue and IMSS catalogue, the acquisition process is run through the distributor.
- ⁵² Comercializadora Pentamed became an IMSS supplier in 2012 and by 2015 was one of IMSS's largest suppliers.
- ⁵³ Sanctions can be set at up to 10% of the offending company's turnover or up to 180 000 times Mexico City's minimum wage (Article 127 of the Federal Competition Act).
- ⁵⁴ Sanctions currently include imprisonment of 5 to 10 years; and daily fines between MXN 1 000 and MXN 10 000.

References

Fundación Mexicana para la Salud (2013), Descripción del sector farmacéutico en México, México, Funsalud, Ciudad de http://funsalud.org.mx/portal/wpcontent/uploads/2013/08/DescripcionSF2012_Funsalud_vF-1401141.pdf

OECD (2018c), OECD Competition Assessment Reviews: Mexico, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264288218-en

OECD (2017), OECD Economic Surveys: Mexico 2017, OECD Publishing, Paris, http://dx.doi.org/10.1787/eco_surveys-mex-2017-en

OECD (2016b), OECD Reviews of Health Systems: Mexico 2016, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264230491-en

PharmaBoardroom (2015), Healthcare & Life Sciences Review: Mexico 2015, http://pharmaboardroom.com/wpcontent/files mf/1435136456MexicoHCLSReviewJune2015.pdf

Part II. Assessment of the implementation of OECD recommendations for fighting bid rigging

3. Further opportunities to exercise buyer power

IMSS is a significant buyer in the Mexican pharmaceutical sector, as well as in public procurement in Mexico more generally. This allows it to attract significant savings for its procurement and use its scale to discourage bid rigging in the tenders it organises. In line with OECD recommendations and in order to maximise its buying power and reinforce these effects, IMSS has consolidated its own purchases (such as pooling together the requirements of its decentralised areas) and instigated joint procurement with other government agencies. The consolidation of requirements (including multi-year contracts) may, however, have an adverse effect on competition in the medium to long term, for example by increasing concentration on the supplier side as fewer competitors are able to satisfy the higher volumes demanded. IMSS should monitor participation in its tenders so it can adapt its procurement strategies to encourage more bidders in its tenders and facilitate entry of new suppliers.

In its 2011 review of IMSS public procurement practices, the OECD recommended that IMSS make more extensive use of its buyer power. As seen in Section 2.1.1, IMSS is both a significant buyer in terms of public procurement and the body making the most public purchases in the pharmaceutical sector. Thanks to its total spending, IMSS has the potential both to unlock significant savings for its purchases and to use its scale to discourage bid rigging in the tenders it organises.

The first, direct effect of IMSS pooling its purchases is an increase in its leverage during the tendering process: public tenders with a higher volume of items (or services) are likely to attract better offers, including lower prices. For example, potential suppliers stand to benefit from economies of scale, which translate into savings they can pass on to secure contracts. This makes large contracts act as an incentive for suppliers. This more aggressive bidding on the part of potential suppliers also ensures that prices are kept in check, or indeed, lowered.

The second effect, which is less directly observable, is minimising the potential for bid rigging. This may lead to additional benefits and savings, the opposite of collusion, which may drive prices higher. Contracts following centralised or consolidated procurements are typically of much higher value and for longer time periods (from a year upwards). Losing out on one-off (or infrequent) and sizeable contracts presents much higher opportunity costs, increasing incentives to deviate from any common understanding on bidding behaviour. In addition, at an operational level, there are more resources available to the procurement teams to design and carry out effective tenders and monitor the process and outcomes so that factors facilitating collusion are properly addressed.

The analysis in Part III of this report demonstrates how these mechanisms typically yield lower prices for larger contracts. IMSS has estimated that purchasing jointly with other public bodies has resulted in cumulative savings for IMSS of 7% and annual savings of between 5% and 9% for the period 2013-2017. This corresponds to savings, for IMSS alone, of around MXN 10.5 billion in the same period. Savings across all participating entities were slightly higher during the first two years of the consolidated tendering exercise (2013 and 2014), with savings of 9% and 11% respectively, with cumulative savings across the five annual tender rounds of 8%.

	2013	2014	2015	2016	2017	Total
IMSS	1 952	2 587	1 602	2 291	2 087	10 520
	7%	9%	5%	7%	6%	7%
Overall	3 751	4 590	2 521	3 352	3 178	17 393
	9%	11%	6%	7%	6%	8%

Table 3.1. Savings from consolidated tenders (MXN, millions)

Note: The savings reported above were calculated using the methodology outlined in endnote 1 of this section, using an inflation rate of 3.81%, 3.45%, 3.33%, 4.00% and 3.85% in each year 2013-2017 respectively. Values for 2013-2016 are actual values of awarded contracts; values for 2017 are based on estimated requirements. These estimates include savings from direct (consolidated) purchases of single-source pharmaceuticals. Source: OECD replication of IMSS methodology, using aggregate data provided by IMSS.

The OECD's 2011 review recommended IMSS aggregate its procurement in three ways: 1) centralise IMSS procurement that was previously done locally; 2) consolidate IMSS purchases with other public bodies (such as ISSSTE or Mexican states); and 3) make use of multi-year contracts.

It was also recognised, however, that aggregating IMSS's requirements and purchases could increase concentration on the supplier side. This may be the result of two elements inherent to these processes: 1) the value of each contract and the fact that tenders are less frequent makes losing a bid more financially significant; and 2) the size of each contract and the requirement that all of Mexico is served can potentially limit the number of suppliers that have the capacity and logistical capabilities to participate in the tenders.

Aggressive bidding can reduce the risk of bid rigging and generate savings for IMSS, but to incentivise such behaviour, a sufficient number of bidders is needed or, at least, a credible threat of entry by outside players to the bidding process over time. In that sense, encouraging maximum participation and the existence of potential suppliers is critical.

To that end, it was recommended that IMSS monitor participation and continue to note the number of available/potential suppliers to avoid a permanent reduction. It was also recommended that IMSS proactively encourage and attract additional potential suppliers.

The remainder of this chapter considers each of these recommendations made by OECD in 2011, and the impact they have had on IMSS's procurement processes and outcomes.

3.1. Centralisation of IMSS's local purchasing

IMSS began the gradual transfer of its procurement capacity from delegations and UMAEs to its central unit in 2006. At the time of the OECD review in 2011, this process was not only underway, but had already been made more systematic. This was reflected in the OECD's 2011 recommendations, which encouraged IMSS to continue pursuing opportunities to consolidate its procurement.

Box 3.1. Emergency purchases

IMSS delegations and UMAEs can purchase items (such as medicines or medical materials) without resorting to the rules governing IMSS procurement by using public tenders for emergency purchases below a certain value. These two procedures are:

- 1. **Fixed fund** (fondo fijo). Items with a total value of less than MXN 2 000 can be purchased directly, without the purchase being recorded on the IMSS' internal procurement system (Sistema de Abasto Institucional, SAI).
- 2. **Emerging purchases** (compra emergentes). Items with a value of less than 299 minimum daily wages (approximately MXN 24 000) can also be purchased directly. These purchases are recorded on the IMSS SAI, but not on CompraNet.

Such emergency cases arise, for example, when a unit within a delegation cannot fulfil a prescription to a patient or if items (other than medicines) have not been delivered.

The process in place authorising such purchases at delegation level also contains additional checks and balances to limit their use:

- 1. The total annual amount of such purchases cannot exceed a share of a delegation's total budget (annually determined by the Supply unit); and
- 2. These procedures cannot be used consistently for the same supplier or the same items.

The value of emergency purchases amounted to less than 2% of the total value of IMSS procurement in 2016 (and less in previous years).

The results of this effort are clearly shown in Figure 3.1, Figure 3.2 and Figure 3.3. The procurement of medicines accounts for an overwhelmingly high share of spending for IMSS,² but tenders run by delegations and UMAEs account for an extremely small value share. This spending dropped to less than 1% in 2014-2016, even if the share in terms of number of product lines is much higher (around the 30% mark in the same period). This reflects IMSS's continued effort to aggregate its local requirements and organise tenders at the central level.

Central Local ♦ Local (% items) 100% 90% 80% 70% 60% 50% 40% 30% 0 20% 10% በ% 2010 2012 2014 2015 2009 2011 2013 2016

Figure 3.1. Share of the value of medicines procurement by IMSS at central and local levels

Note: Year based on contract-award date. Value calculated using the maximum volume in the contract and the prevailing net price. Central tenders include the value of products procured by IMSS in the context of the annual consolidated tender exercises. The share of items reflects the number of product codes that are procured through central tenders, whereas the total in each year is product codes in central and local tenders (so an item may appear more than once if it was procured via separate tenders).

Source: OECD analysis of IMSS tender data.

Aggregation of procurement requirements is less profound for the procurement of items other than medicines as centralised tenders were introduced later. In 2010 for medical materials (Figure 3.2) and 2012 for other items, including equipment (Figure 3.3). The greater role played by delegations and UMAEs in the purchase of those categories of goods partly reflects the localised nature of some of these purchases. For example, stationery, material for use with IT equipment, and medical and laboratory consumables are mostly purchased through decentralised tenders, as seen in both the share of items and value.

In summary, IMSS has centralised its procurement functions to a large extent, at least for medicines. The OECD recommends that IMSS intensifies its efforts to bring the acquisition of other goods further into line with that of medicines and explore opportunities for increased centralisation of the remaining decentralised purchases, while acknowledging that there will remain specific local conditions. If a greater share of procurement is to be undertaken at a central level, IMSS should improve upstream planning for local units' needs and requirements.

2016

2015

2014

Central Local ♦ Local (% items) 100% \Diamond \Diamond \Diamond 90% 80% 70% 60% 50% 40% 30% 20% 10% 0%

Figure 3.2. Share of the value of medical-material procurement by IMSS at central and local levels

Note: Year based on contract-award date. Value calculated based on maximum volume in the contract and the prevailing net price. The share of items reflects the number of product codes that are procured through central tenders, whereas the total in each year is product codes in central and local tenders (so an item may appear more than once if it was procured via separate tenders).

2013

2012

Source: OECD analysis of IMSS tender data.

2010

2011

2009

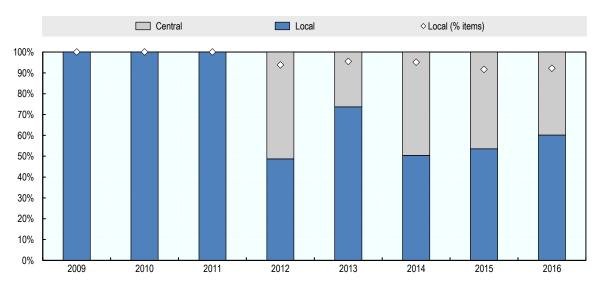


Figure 3.3. Share of the value of procurement by IMSS of other items at central and local levels

Note: Year based on contract-award date. Value calculated based on maximum volume in the contract and the prevailing net price. The share of items reflects the number of product codes that are procured through central tenders, whereas the total in each year is product codes in central and local tenders (so an item may appear more than once if it was procured via separate tenders).

Source: OECD analysis of IMSS tender data.

The analysis presented in Chapter 10 of this report shows that central purchasing does typically result in lower prices and – in some instances – also shields delegations from higher prices. This positive spillover means that not only has central purchasing allowed IMSS to realise savings in its procurement, but also that residual local procurement (often in the form of top-ups for additional requirements) is also now done at a lower cost: the price obtained in central contracts can transfer to contracts awarded by delegations and UMAEs, either because the supplier chooses to do so or because the contract is viewed as an "extension" of the one awarded centrally. In addition, an important benefit arising from the centralisation of procurement is that any reduction in price then becomes the new (lower) reference price for the relevant products (see Chapter 10).

Participation in tenders

In the medium to longer term, aggregation of volumes at a central level has the potential to result in greater concentration and market power. The greater the volume of the goods or services in the tender, the smaller the number of suppliers that have the capacity or financial capability to provide these volumes. This means that there may be a smaller number of potential suppliers on the supply side, which in turn also increases the risk of collusion. IMSS should therefore monitor participation in its central tenders.

Levels of participation in tenders are not routinely recorded in the electronic data IMSS maintains regarding contracts awarded for the acquisitions of goods and services in the period to 2016.3 Therefore, a comprehensive analysis of any impact on participation that the centralisation of tenders has had is not possible. Instead, the table below summarises the (value) share of the contracts awarded to IMSS's top-10 and top-20 suppliers across all product lines. For the conclusions to be interpreted correctly, it is important to note that the vast majority of contracted suppliers are intermediaries – wholesalers and/or distributors – and not the manufacturers of the purchased items.

Table 3.2. Share of IMSS spending through central and local tenders allocated to top-10 and top-20 suppliers

		2009	2010	2011	2012	2013	2014	2015	2016
Central	Top 10	61%	69%	64%	73%	74%	82%	67%	62%
	Top 20	83%	81%	75%	81%	87%	88%	79%	76%
Local	Top 10	36%	45%	49%	54%	26%	37%	38%	31%
	Top 20	50%	56%	60%	66%	38%	53%	53%	46%

Note: Year based on contract award date. Calculated value based on maximum volume in the contract and the prevailing net price. Central tenders exclude consolidated tenders (i.e. tenders for joint procurement with other public bodies).

Source: OECD analysis of IMSS tender data.

In the case of central tenders, the top-10 suppliers account for a significant share of IMSS spending, reaching up to over 80% of total contract value in 2014. In 2016, the latest year for which full-year information is available, over 60% of the total value of contracts awarded centrally was captured by 10 suppliers, and 76% was captured by 20 suppliers. A slight decline in this share has been observed over the past two years, suggesting either the entry of new suppliers or that existing smaller ones have been increasingly able to satisfy the centrally aggregated needs of IMSS.

This contrasts with much lower value shares captured by the same suppliers across local tenders. In other words, there is greater variability and less concentration in local supply. This is not reflective of the competitive conditions in each of the local areas, so it is only shown as a comparator *across* all areas.

The OECD recommends that IMSS closely monitors participation in central tenders, and remains attentive to any indications that suppliers are being discouraged from bidding for certain tenders or products. This will enable IMSS to address and remove any potential barriers to participation, such as capacity constraints, limitations to coverage of all Mexican territory or remote areas, or incumbency advantages. Similarly, IMSS should continue to follow developments in the market, beyond participation in its own tenders, so that its practices do not lead to unnecessary consolidation on the supply side.

3.2. Joint procurement with other government agencies

In 2011, in co-ordination with SFP and the Mexican Ministry of Finance, IMSS initiated a restricted joint procurement exercise with the Mexican Ministry of Defence (Secretaria de Defensa Nacional, SEDENA). In 2012, following the 2011 OECD recommendations, IMSS led a more extensive trial of a consolidated tender involving IMSS, SEDENA, ISSSTE and Baja California state. A more extensive (and now mature) system of consolidated tenders, led by IMSS, has been in place since 2013. To date, this system includes only medicines, vaccines and medical material. Each year, the requirements of all participating public bodies are aggregated, and a combined tender is run in the autumn for contracts covering supply in the following year.

	Box 3.2. Model timeline for consolidated tenders	
Stage 1	Planning of requirements (validation and aggregation of requirements)	(2 weeks)
Stage 2	Market research (duration depends on items to be procured)	(5 weeks)
Stage 3	Procurement strategy (modification of requirements, selection of format)	(2 weeks)
Stage 4	Call for tenders	(3 weeks)
Stage 5a	Publication of call for tenders	(1 week)
Stage 5b	Clarification meeting	(10 days)
Stage 5c	Submission of offers	(10 days)
Stage 5d	Decision	(2 weeks)
Stage 6	Drafting of contract	(1 week)
Source: IMSS.		

This initiative has proved successful for IMSS and other participating government agencies, as evidenced by the growing participation and volumes procured using these types of tenders. In addition to the five main bodies participating in all consolidated tenders (IMSS, ISSSTE, PEMEX, SEDENA and SEMAR), the number of other participants has increased from 9 in 2013 to 45 in 2017. The value of purchases through consolidated tenders has grown by over 30% in the same period, highlighting the importance these tenders have gained.

Table 3.3. Public bodies participating in consolidated tenders and their requirements

	Participants			Requirements (MXN millions)						
	2013	2014	2015	2016	2017	2013	2014	2015	2016	2017
Bodies	5	5	5	5	5	41 534	44 128	41 427	44 498	50 216
IMSS						32 142	33 195	32 405	33 626	37 306
ISSSTE						8 730	9 119	7 263	9 230	10 701
PEMEX						566	862	770	669	981
SEDENA						90	925	953	952	1 211
SEMAR						7	27	37	20	16
States	5	16	18	18	22	1 029	4 864	3 401	4 241	5 371
Institutes	4	21	17	17	23	15	163	161	145	533
Total	14	42	40	40	50	42 578	49 156	44 989	48 884	56 120

Note: Institutes are hospitals, research institutes and specialist centres that participate in consolidated tenders independently.

Source: IMSS.

Consolidated tenders – organised, designed, carried out and led by IMSS – constitute an additional step towards IMSS exercising buyer power in its public procurement. IMSS's own calculations demonstrate the savings these tenders create for participants, including IMSS. The individual cases and assessment presented in the second part of this report confirm the expectation that the greater volumes associated with consolidated tenders have typically resulted in lower prices when compared to prices obtained in tenders at delegation and UMAE level. As with centrally organised tenders, while it is not possible to link this outcome to a measurable reduction in actual or potential bid-rigging schemes, the latter can nonetheless be considered the result of more aggressive bidding.

Given its prominence as the largest purchaser of goods in the health sector, IMSS contributes by far the largest part of the consolidated requirements. IMSS makes up between 67% (in 2017) and 75% (in 2013) of total value awarded in each annual exercise (Table 3.3). As such, IMSS uses its size to achieve desirable outcomes for other market participants, while itself benefitting from the increased buyer power created by consolidated tenders. Within IMSS, the importance of consolidated tendering has remained high, accounting for more than 60% of its procurement in each of the years 2013-2016 (70% in 2016).

Consolidated Central Local ♦ Local (% items) 100% 90% 80% 70% 60% 50% 40% 30% 20% 10% 0% 2009 2011 2012 2013

Figure 3.4. Share of the value of procurement by IMSS through local, central and consolidated tenders

Note: Year based on contract-award date. Value calculated based on maximum volume in the contract and the prevailing net price. The volume used in the calculations corresponds to the quantity requested by IMSS only. The share of items reflects the number of product codes that are procured through central and consolidated tenders, whereas the total in each year is product codes in central and local tenders (so an item may appear more than once if it was procured via separate tenders).

Source: OECD analysis of IMSS tender data.

Participation in tenders

Consolidated tenders carry much the same risks as those associated with central purchasing, namely the potential for a permanent reduction in the number of available suppliers and participants in the tenders. The value share of contracts awarded to the top-10 suppliers, following consolidated tenders in the years 2013-2016 has remained high and generally above 60%. Indeed in the past two years, the same 10 suppliers accounted for two thirds of the value of items procured in the consolidated tenders. The share of the two largest suppliers has also been on the rise, from around 33% in 2013-2014 to over 40% in 2015-2016.

Table 3.4. Value share of medicines and medical materials awarded through consolidated tenders to top-10 suppliers

Supplier	2013	2014	2015	2016
Dimesa	14%	20%	24%	23%
Farm. Especializados	17%	13%	17%	21%
CPI	6%	8%	9%	9%
Мауро	8%	6%	5%	3%
CIMSA	3%	3%	5%	5%
Vitasanitas	3%	3%	3%	0%
Ralca	1%	2%	3%	3%
Dibiter	2%	0%	1%	2%
Landsteiner Scientific	2%	3%	0%	0%
Savi	16%	0%	0%	0%
Total	73%	58%	67%	66%

Note: Year in which the tender was carried out. Products on patent or single source are excluded. 2016 excludes consolidated purchase of vaccines.

Source: IMSS.

IMSS should remain vigilant to ensure that competition in the relevant markets is safeguarded. It should intensify efforts to lower barriers to participation and increase the variability of its tendering mechanisms and the way products are procured (locally, regionally, centrally, in consolidated tenders or a mix). Not only would a narrower set of competing suppliers reduce the number of participants in IMSS and consolidated tenders, which would facilitate collusion and weaken competition for each tender, but it may also endanger the ability to attract suitable suppliers at all. As an example of the undesirable effects of consolidating purchases, Box 3.3 outlines the outcome of the recent COFECE investigation into bid rigging in tenders for the supply of latex gloves. COFECE's findings confirmed that the scheme was elaborated when the supply for gloves was centralised and later consolidated.

Box 3.3. COFECE investigation into bid rigging in tenders for the supply of latex gloves

On 11 December 2017, COFECE announced that it had concluded its investigation into bid rigging in consolidated tenders for the supply of latex gloves to the Mexican publichealth sector. This bid-rigging scheme involved five suppliers (and 11 individuals acting on behalf of some of these companies) arranging or co-ordinating bids for prices and discounts, and sitting out bids.

The practice, which took place from March 2009 to April 2015, affected a number of tenders, mainly those carried out under the consolidated-purchasing model organised by IMSS.

The colluding companies, through meetings and communications, agreed in advance which one would win in certain locations and products. The co-ordination was maintained even after external shocks - such as the entry of new bidders - that led the companies to lower their prices in a co-ordinated manner.

COFECE estimates that the illegal agreements between the companies resulted in overcharges of approximately MXN 174 million. The fines it imposed amounted to over MXN 257 million.

Source: COFECE press release, "COFECE Sanctions Five Latex Glove Suppliers for Bid Rigging in Public Procurement in the Health Sector", www.cofece.mx/wp-content/uploads/2018/02/COFECE-057-2017.pdf.

A non-trivial number of tenders each year are declared void, meaning that these products are then procured on an individual basis at a local level. Procurement for 15 products was unsuccessful in every consolidated tender exercise between 2014 and 2016. Products for which no suitable supplier is found during consolidated tenders are suitable candidates for IMSS to design alternative or varying procurement mechanisms, such as those outlined above.

Table 3.5. Products declared void after consolidated tenders

	Te	nders	\	/oid	Void (%)		
	Products	Volume (million items)	Products	Volume (million items)	Products	Volume	
2014	1 725	1 988	371	456	22%	23%	
2015	1 684	2 134	476	563	28%	26%	
2016	1 545	2 050	281	164	18%	8%	

Note: Excluded are single-source products, the price of which is negotiated separately. Also excluded is one tender for a framework agreement in 2015 (none of the products included in this framework agreement were

Source: OECD analysis of IMSS tender data.

Standardisation of contracts and terms

As shown in the information in Table 3.3, consolidated tenders bring together numerous public bodies and institutions both at a federal and state level. For this to happen, the procurement cycles of participating institutions have been partially synchronised. During OECD fact-finding missions, however, concerns have been raised about the lack of homogeneity of terms, lack of standardisation of contracts, and risk of non-payment at the award or later stages.

Even when IMSS manages the tender process, after the winner is decided, contracts are signed bilaterally between the supplier and each participating body. This leads to different contract terms agreed with each purchaser, largely due to different prevailing legislations governing each entity's contracts, often at state level.

This heterogeneity in contract terms and multitude of contracts generates inefficiencies and increases the risks suppliers may assume. This, in turn, has the effect of leading to higher bids as the higher contract-management costs and risks are priced into bids. It may even discourage participation itself.

As permitted by the relevant legal frameworks, IMSS should explore ways to address this issue, simplify the process and offer more standardised contract terms.

Single-source medicines

For the procurement of patented medicines or those only available from a single source, IMSS also indirectly exercises buyer power and joins forces with other public bodies. The Co-ordinating Commission for the Negotiation of Prices for Medicines and Other Health Products (Comisión Coordinadora para la Negociación de Precios de Medicamentos y otros Insumos para la Salud, CCNPMIS) annually negotiates with pharmaceutical laboratories the prices for single-source and patented medicinal products. In doing so, it also liaises with COFEPRIS and IMPI on products' patent protection and collects information on national and international prices, as well as the total volumes of each product planned for public procurement. It also uses information on therapeutic equivalence and cost-effectiveness of potential alternatives to patented products (supplied by experts at IMSS, ISSSTE and SS).

IMSS, which is a member of CCNPMIS,⁴ and other buyers use these uniform prices to source the products that fall under CCNPMIS's remit, using a direct-award procedure. A part of those purchases is done through the annual consolidated-tender exercise.

The particularities of procurement for patented products mean that this process can be exempted from the obligation to use open tenders. The OECD recommends that IMSS leverages its position as a member of the CCNPMIS to ensure that patent expiration is diligently monitored; mechanisms to facilitate the timely entry and granting of sanitary licenses to generics are in place;⁵ and potential substitutes are considered, whenever appropriate.

3.3. Use of multi-year tenders

In its 2011 recommendations, the OECD encouraged IMSS to use multi-year tenders, where appropriate. By further aggregating its requirements across time, multi-year contracts are another way for IMSS to leverage its purchasing power and obtain more favourable prices and terms for its procurement.⁶

IMSS has used multi-year contracts in the case of durable goods. For example, in 2013, it switched to multi-year contracts (and framework agreements) for the purchase or leasing of ambulances and other vehicles. However, IMSS has not made use of multi-year tenders for the procurement of non-durable goods. The overwhelming majority of the contracts it offers to its suppliers are for a period of less than 15 months, as Table 3.6 shows. Between 82% and 90% of the contracts⁷ awarded in the period 2010-2016 had a duration of between 3 and 15 months, whereas fewer than 120 contracts during the same period were for a period over 15 months (before 2012 only 5 for 2 or more years). The same general distribution is observed when looking at products procured through open tenders or each product category separately, as seen in Table 3.6.

Table 3.6. Duration of IMSS supply contracts

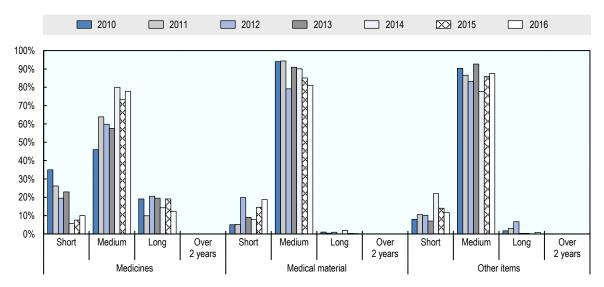
Duration	2010	2011	2012	2013	2014	2015	2016
Short (up to 3 months)	17%	17%	14%	10%	12%	11%	14%
Medium (3-15 months)	82%	83%	85%	90%	88%	89%	86%
Long (over 15 months)*	1%	0%	1%	0%	0%	0%	0%
Over 2 years	0%	0%	0%	0%	0%	0%	0%

Note: Contracts with a start date on or after 1 January 2010 and an end date on or before 31 December 2016. Short-term contracts are those with a duration of up to 90 days. Medium-term contracts are those with a duration of between 91 and 455 days. Long-term contracts are those with duration of between 456 and 730 days. Included are contracts that were later terminated or cancelled.

Source: OECD analysis of IMSS contract data.

In general, IMSS goods-procurement contracts generally fall into two categories: 1) under one-year contracts, which follow a standard procurement cycle; and 2) short-term contracts, for top-up or unplanned purchases.

Figure 3.5. Number of items purchased and duration of corresponding supply contracts, by product type



Note: Contracts with a start date on or after 1 January 2010 and an end date on or before 31 December 2016. Short-term contracts are those with a duration of up to 90 days. Medium-term contracts are those with a duration of between 91 and 455 days. Long-term contracts are those with a duration between 456 and 730 days. Included are contracts that were later terminated or cancelled.

Source: OECD analysis of IMSS contract data.

IMSS routinely uses multi-year contracts when procuring integrated services, however.⁸ Since 2008, such services have been put out to tender for contracts lasting more than two years, with tenders run in 2008, 2011 and 2015/2016.9 The corresponding tenders in 2016

^{*}Includes two contracts under a 2015 framework agreement.

(see Table 3.9) were also organised along geographical zones, with various IMSS delegations bundled together into several lots.

Table 3.7. IMSS procurement of integrated services, 2015-2016

Service	Contract duration (years)	Tender cover	Evaluation criterion
Haemodialysis (off-site)	4	FTA	Binary
Haemodialysis (on-site)	4	FTA	Binary / Auction
Continuous ambulatory peritoneal dialysis (CAPD)	4	FTA	Binary
Automated peritoneal dialysis (APD)	4	FTA	Binary
Blood banks	3	FTA	Binary
Laboratory testing	3	FTA	Binary
Minimally invasive procedures	3	FTA	Binary

Note: FTA corresponds to tenders under the provisions of Mexico's free-trade agreements.

Source: IMSS.

IMSS has identified benefits from multi-year service contracts, such as increased efficiency, and a refinement of the requirements of the relevant medical units. It has also created savings through the lower average prices it has obtained. For example, IMSS estimates that in the 2015-2016 tender, it realised savings of around 29% in the case of automated peritoneal dialysis, 21% for continuous ambulatory peritoneal dialysis, and 38% in all haemodialysis services (although the on-site haemodialysis contract was later declared void).

By extending the period in which the successful bidder is the sole supplier (or one of the suppliers) for the products or services in question, multi-year tenders introduce increased competition for the market. Multi-year contracts concern higher volumes, instil a higher degree of certainty to the supplier and allow upfront costs to be spread across a longer time period. Given the lumpier demand, they are likely to generate more aggressive bidding and act as a disincentive to collusive agreements, given that they have the effect of raising the cost of waiting out on a tender.¹⁰

The impact of multi-year agreements on the pool of potential suppliers should be carefully monitored to ensure future participation in tenders. In particular, in deciding whether to use a multi-year tender, IMSS should remain attentive to existing levels of concentration for the products in question in both the supply and demand sides of the market. If the number of potential suppliers is already limited and their relative strength asymmetrical, a multiyear award may lead to an increase in market power for one (or several) of them, with detrimental effects to participation levels in future tenders. In addition, if there is significant concentration on the buyer side, a multi-year contract awarded to one supplier may cause others to exit the market. For example, if purchases outside the tender in question are limited (either because other public bodies do not purchase significant volumes or because there is little demand from private buyers), a multi-year tender will likely invite more aggressive bidding, but may also severely affect the ability of losing bidders to continue operating in the market.

The OECD recommends that IMSS continues its practice of using multi-year tenders for integrated services and durable goods, where it has noted benefits. 11 IMSS may also benefit from selectively extending such contracts to certain categories of goods, particularly in the context of its centrally run (unconsolidated) tenders. This can be done in stages, introducing a few such contracts on a trial basis for some medicines and other items for which the

supply side is mature and stable. This would allow IMSS to assess the outcome of those tenders and their impact on the market, before potentially extending their use.

Framework agreements

As explained in Section 2.2, IMSS can award a contract, without resorting to an open public tender, by drawing from the pool of suppliers that are party to a framework agreement, negotiated and concluded by SFP. Since they were first introduced in 2012, IMSS has made limited use of framework agreements in the case of medicines and medical material and consumables:

- patented medicines in 2012 (151 medicines in total, all single-sourced);
- vaccines in 2012 (29 vaccines, 6 single-sourced); and
- vaccines in 2015, as part of the annual consolidated tenders (11 vaccines, 10 singlesourced).

IMSS should continue to consider framework agreements when it believes that they are likely to deliver more benefits then other tender procedures. It should, however, be selective in their use. IMSS should liaise with SFP – which has a role in negotiating and instituting such agreements – and communicate its needs, identify potential areas where a framework agreement may be beneficial, and continue to support SFP in its negotiations with suppliers (given IMSS's own market intelligence).

Other than efficiencies in the way a contract is awarded, IMSS can use other tools at its disposal to realise the benefits associated with framework agreements. For example, aggregation of volumes by several buyers can be achieved in the context of consolidated tenders or multi-annual contracts; open contracts, which specify minimum and maximum volume (or value) of the goods and services to be purchased, provide a significant margin of flexibility; and prices on patented or single-sourced products can be negotiated and agreed to by CCNPMIS.

3.4. Facilitating new suppliers' participation in tenders

For the aggregation of volumes on the demand (buyer) side to be successful and continue to generate savings for IMSS and its partners in consolidated tenders, sufficient competition (actual or potential) on the supply side is required. This is to avoid volume aggregation that might result in undesirable levels of concentration among suppliers – through firms exiting the market or being discouraged to enter – and so dampen competition. This would harm participation in future tenders, hitting prices or other terms offered to IMSS, while increasing the risk of collusion among the reduced number of market participants. As highlighted above it is important for IMSS to monitor the participation of suppliers in tenders and, where necessary, encourage both entry and participation.

Table 3.4 shows the share of purchasing accounted for by the top suppliers, in the context of consolidated tenders, while the following figures in turn measure participation in the 2016 consolidated tender exercise. In the case of medicines, two thirds of the lots (60% in terms of value) received only one offer, while over 85% only attracted one or two offers – these percentages are higher if only successful tenders are considered. Similarly in the case of reverse auctions, around 70% of lots that were awarded (also 70% of the corresponding value) only attracted a single bid. There was higher participation in the case of medical materials and an even more balanced number of offers in the case of gloves, latex and syringes, most likely reflecting the (less differentiated) nature of those products.

No offer Three offers One offer Two offers Four offers Five or more offers 80% 70% 60% 50% 40% 65% 30% 59% 54% 20%

Figure 3.6. Share of the number of offers received for the procurement of medicines, 2016-2017 consolidated tenders

Note: Volume is maximum quantity indicated for consolidated purchases. Value is calculated on the basis of maximum quantity and the MRP. Distribution across the two tender exercises is similar. Source: OECD analysis of records for consolidated tenders 2016-2017, as published on CompraNet.

Items

10% 0%

Lots

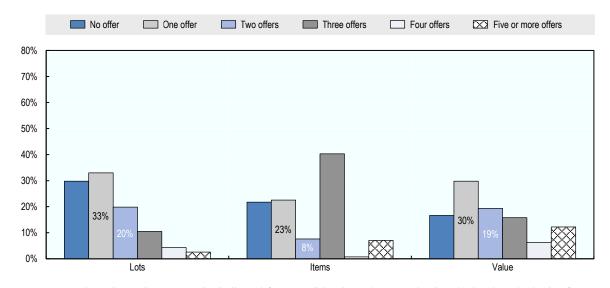


Figure 3.7. Share of the number of offers received for the procurement of medical materials, 2016-2017 consolidated tenders

Note: Volume is maximum quantity indicated for consolidated purchases. Value is calculated on the basis of maximum quantity and the MRP.

Source: OECD analysis of records for consolidated tenders 2016-2017, as published on CompraNet.

Two offers Four offers No offer One offer Three offers Five or more offers 80% 70% 60% 50% 40% 30% 20% 8% 10% 0% Items

Figure 3.8. Share of the number of offers received for the procurement of gloves, latex and syringes, 2016-2017 consolidated tenders

Note: Volume is maximum quantity indicated for consolidated purchases. Value is calculated on the basis of maximum quantity and the MRP.

Source: OECD analysis of records for consolidated tenders 2016-2017, as published on CompraNet.

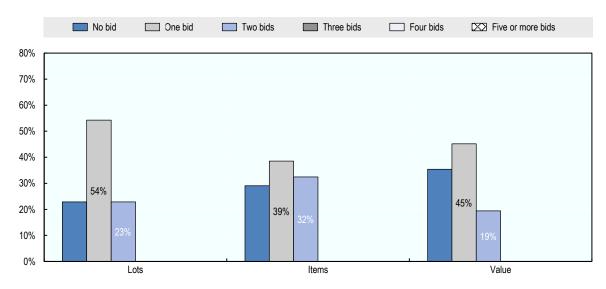


Figure 3.9. Share of the number of bids received, 2016-2017 consolidated reverse auctions

Note: Volume is maximum quantity indicated for consolidated auctions. Value is calculated on the basis of maximum quantity and the opening bid for the auction.

Source: OECD analysis of records for consolidated tenders 2016-2017, as published on CompraNet.

A sustained period of low participation in tenders can have adverse long-term effects; and confer strong advantages to incumbent suppliers. Given that sponsoring entry is difficult in the case of public bodies, IMSS should actively explore ways to attract and maintain the interest of local and international suppliers and avoid supply monopolies.

IMSS should use its annual plan or a multi-year strategic plan to communicate and advertise the products it purchases and its future requirements (however, see Section 5.2 regarding the need to limit certain types of information released with IMSS annual plans). By specifying the (type of) products and services it intends to procure, IMSS instils a degree of predictability and certainty and allows potential suppliers to plan ahead and make the necessary arrangements and investments to participate in tenders. In addition, allowing for sufficient time for every step of the procurement process will ensure that no potential supplier is discouraged from participating in the tender.12

IMSS can also make use of its discretion to vary its procurement methods to promote participation by smaller capacity-constrained suppliers. By moving some purchases from consolidated tenders to central or even local ones (or dividing the contract into different geographic areas), it can encourage offers by smaller manufacturers or regional and local wholesalers and distributors, who cannot cover the whole of Mexico, whether for volume or distribution. Given the importance of IMSS (or consolidated) purchasing to suppliers' revenues, smaller purchases break the cycle of lumpy contracts, which may make it difficult for unsuccessful bidders to wait for the next tenders. This variability in IMSS procurement strategies has additional benefits, such as introducing uncertainty to disrupt collusion (see Section 6.3).

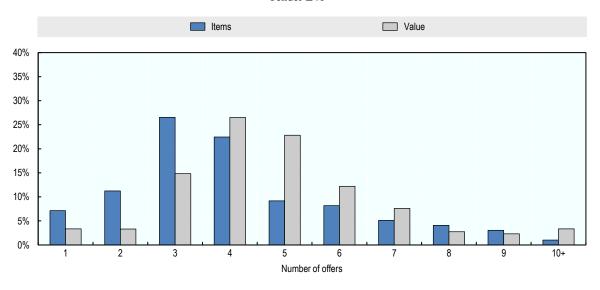
IMSS should also selectively multi-source either through framework agreements or by – occasionally – allowing joint bids and split contracts. As an alternative to procuring in smaller lots, this allows suppliers who cannot satisfy all of IMSS's requirements on their own to jointly do so. This is already used by IMSS, 13 but needs to be tailored to more strategic considerations to encourage entry and bids (see Sections 5.1.1 and 7.3.2).

Wholesalers and distributors are frequently submitting de facto joint bids, since they act as consolidators by bundling together products from several manufacturers in their tender offers to IMSS. This is seen in Figure 3.10 and Figure 3.11 in the case of the 2016 consolidated tenders for medicines, for which such information could be collected. In the case of tender E41, around 60% of offers consisted of three to five brands; this may reflect the need to source enough volume from local manufacturers to satisfy the entire demand. The offers put forward in tender E42 of 2016 were more balanced in terms of number of items, although more than 80% in terms of value had three or more brands. In the case of auctions, around 50% of the offers consisted of more than one brand.

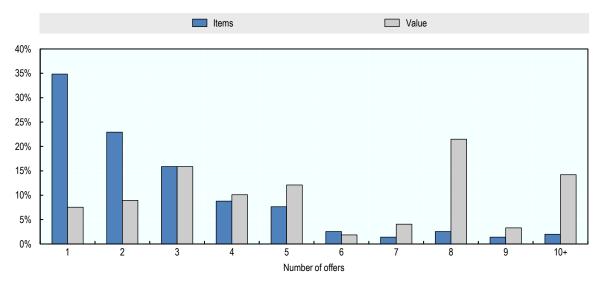
Given the prominence of wholesalers and distributors as participants in its tenders (including consolidated), IMSS may benefit from trialling other innovative ways to increase tender participation and encourage manufacturers to bid directly. For example, it may invite tenders separately for the products it requires and for its distribution to its own warehouses or delivery points.

Figure 3.10. Share of the number of brands in single offers for medicines procurement, 2016-2017 consolidated tenders

Tender E41



Tender E42



Note: Information on two offers for lots in tender E41, which were rejected, is not available. Value is calculated on the basis of maximum quantity and the MRP.

Source: OECD analysis of records for consolidated tenders 2016-2017, as published on CompraNet.

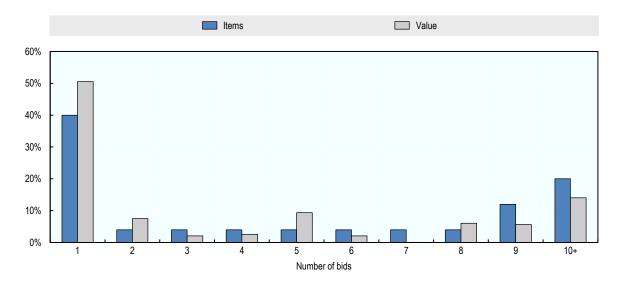


Figure 3.11. Share of the number of brands in single bids, 2016-2017 consolidated auctions

Note: Value is calculated on the basis of maximum quantity and the opening bid for the auction. Source: OECD analysis of records for consolidated tenders 2016-2017, as published on CompraNet.

In formulating policies to promote entry and participation in tenders, IMSS should have regard to the scope of the relevant market. The geographic scope of the market may be mostly local for some products, such as food supplies; national and mostly public for others, such as consumables for dialysis; or national and both public and private for others, such as most generic medicines).

3.5. Recommendations for action

- To the greatest extent possible, IMSS should consider bringing the acquisition of other goods more into line with that of medicines by further centralising the remaining decentralised purchases.
- IMSS should closely monitor participation in tenders carried out centrally and consolidated tenders. It should remain attentive to any indications that suppliers are being discouraged from bidding for certain tenders or products.
- Similarly, IMSS should monitor the outcome of central and consolidated tenders to identify products for which no suitable suppliers are found for the required volumes.
- IMSS should continue to follow developments in the market, beyond participation in its own tenders, so that its practices do not lead to unnecessary consolidation on the supply side.
- In the context of consolidated tenders and to the extent permitted by the relevant legal frameworks, IMSS should explore ways to offer a single or a limited number of contracts, or more standardised contract terms.
- IMSS should liaise with relevant bodies to ensure that patent expiration is diligently monitored; mechanisms to facilitate the timely entry and granting

- of sanitary licenses to generics are in place; and potential substitutes to singlesource products are considered, as appropriate.
- IMSS should continue using multi-year tenders for integrated services. It may also benefit from selectively extending such contracts to certain categories of goods, particularly in the context of its centrally run tenders. In doing so, IMSS should remain attentive to existing levels of supplier concentration for the products in question.
- IMSS should consider selectively using framework agreements when it believes that they are likely to deliver benefits, over and above other tender procedures.
- IMSS should support SFP in this role negotiating framework agreements.
- Where necessary, IMSS should explore ways to encourage both entry into the market by new suppliers and participation in its own tenders.
- IMSS should use its annual plan or a multi-year strategic plan, to communicate and advertise the products it purchases and its future requirements so as to allow potential suppliers to plan ahead and make the necessary arrangements and investments to participate in tenders.
- IMSS should trial innovative ways to increase tender participation and encourage manufacturers to bid directly in its tenders.

Notes

- ¹ IMSS's methodology for calculating the savings realised from the consolidated tenders is as follows. For each item procured, 1) the unit price for the year before the consolidated tender in question (p_{t-1}) is adjusted using the rate of inflation $(p_{t-1} * inflation_t)$; 2) this price is applied to the volume awarded during the consolidated tender of the year in question $(Q_t * (p_{t-1} *$ $inflation_t$); 3) this is compared to the actual spending as a result of the consolidated tender $(Q_t * p_t)$. In sum, the saving achieved for each item is $Q_t * p_t - Q_t * (p_{t-1} * inflation_t)$, where Q is the volume awarded, p is the unit price and t denotes the year in which the consolidated tender was run (so that t-1 is the year before).
- ² Contracts for the supply of medicines accounted for 75-84% of each year's IMSS tenders in the period 2011-2016.
- ³ This information is available in PDF format on the CompraNet platform for all tenders whose records are uploaded and kept online.
- ⁴ CCNPMIS, founded in 2008, consists of representatives from IMSS; ISSSTE; the Mexican Ministry of Finance; the Mexican Ministry of Economy; the Mexican Ministry of Health; and advisors from SFP and COFECE.
- ⁵ For example, COFECE (2017) found that "it takes, on average, more than two years between the expiration of a patent and the launch into the market of the first generic product". This timeline can be shortened if the process for obtaining authorisation and registering a generic product in the respective catalogues is facilitated and initiated earlier.
- ⁶ Both the LAASSP and the RLAASSP refer to contracts of one or more fiscal years, without establishing a maximum contract duration.
- ⁷ It has not been possible to analyse the number of tenders, rather than contracts, due to the way the former are recorded in IMSS databases.
- ⁸ The provider of an integrated service is responsible for supplying the necessary equipment and other supplies, as well as the required personnel, but uses the facilities of IMSS.
- ⁹ A tender was envisaged for 2014, but the contracts were extended so that tenders were instead run in the second half of 2015.
- ¹⁰ Multi-year contracts should also include provisions that allow for the terms to be updated in case market developments warrant revisions.
- ¹¹ Benefits, in the form of savings to IMSS, would also accrue when awarding multi-year contracts for goods or services with high upfront costs, for example, medical devices that require user training, given that such costs would be incurred once and spread over a longer period. A sufficiently competitive market ensures that these cost savings are passed on to IMSS, as a customer, through lower bids.
- ¹² For example, COFECE recommends that "The health institutions must instrument longer planning horizons in the procurement process, in order to grant a longer time between the result of the bidding process and the delivery of the medicines. This requires that the planning of acquisitions by the health institutions must consider the time required for every step of the process, in addition to considering adjustments to budgetary scheduling, in order to speed up the contracting process, and grant suppliers a longer time to produce the drug" (COFECE, 2017).
- ¹³ See the discussion of Table 3.6, Figure 3.5 and Section 5.1.

References

COFECE (2017), "Study on free market and competition in the expired-patent drug markets in Mexico", www.cofece.mx/cofece/ingles/attachments/article/38/Studiesdrug%20markets_vF-Baja.pdf

OECD (2011), Fighting Bid Rigging in Public Procurement in Mexico: A Secretariat IMSSProcurement Regulations and Practices, http://oecd.org/competition/abuse/49390114.pdf

4. Co-ordination with SFP and COFECE and adoption of best practices

In 2011, the OECD recommended that IMSS co-operate with both SFP and COFECE to receive support at various stages of its procurement processes. SFP oversees the procurement of the Mexican public sector and can share best practices with IMSS, while COFECE is the competent competition authority and has expertise in fostering competition and fighting collusion. While IMSS has engaged in informal discussions with SFP on various aspects of its tender processes and has signed a co-operation memorandum with COFECE, it would likely benefit from further strengthening its ties with both bodies. IMSS has made notable progress in meeting the 2011 OECD recommendations by standardising procurement processes, documents and specifications, and further expanding the use of eprocurement.

4.1. Co-ordination with SFP

In 2011, the OECD recommended that IMSS involve SFP at the earliest possible stage of the procurement process by asking for design and strategy advice. SFP oversees the procurement of the entire Mexican public sector and can share with IMSS best practices implemented by other Mexican purchasing bodies, as well as helping with the co-ordination and promotion of joint initiatives with other agencies.

The OECD acknowledged that IMSS had been engaged in constructive dialogue with SFP since 2010 (such as the creation of high-level discussion groups at a stage prior to requesting social witnesses¹ for a significant number of tenders). For instance, on 24 November 2011, IMSS and SFP created a working group charged with elaborating a methodology for regional and local market research. As part of this action, public officials from IMSS delegations and UMAEs received capacity-building training on how to conduct market research. A joint working group was also created to support the development of framework contracts as a mechanism to address shortages. The result provided the basis for the vaccines framework contracts. In 2010 and 2011, IMSS also asked SFP to provide early advice on several tenders. These initiatives have not continued, however, due to the change of IMSS administration in 2012 and the high turnover of management-level staff at IMSS.

Since 2012, SFP's participation in IMSS procurement procedures has been limited to an advisory and supervisory role. This has consisted of: 1) consultations on the interpretation of the provisions of LAASSP and RLAASSP;² 2) participation in the IMSS Committee for Acquisitions, Leases and Services;³ 3) verification powers to check that procurement procedures are carried out in accordance with applicable legal provisions; 4) sanction powers against suppliers, bidders and public officials that violate the LAASSP; 5) dealing with appeals against decisions of public-procurement procedures: 6) designation of social witnesses for certain procurement procedures; and 7) participation of the Internal Control Body (Órgano Interno de Control, OIC) in the different stages of procurement procedures, such as clarification meetings or the presentation and opening of proposals.8

IMSS should strengthen the engagement with the SFP that began in 2011 to improve best practices for procurement strategies and design. During the OECD's fact-finding mission, for example, IMSS referred to informal discussions with the SFP regarding the limitations of the prescribed methodology of MRP calculation or the possibility of not publishing the lowest bid before the opening of an auction. Although neither IMSS nor the SFP have come to a conclusion regarding these informal discussions, such a dialogue is welcome. Areas of co-operation should also be explored through more formal channels, such as working groups, similar to those held in 2011, in order to bring about concrete action.

4.2. Promotion of best practices and standardisation of documents and procedures

In 2011, the OECD recommended promoting the adoption of best practices among IMSS procurement officials, the use of standardised tender documents and procedures as described in SFP's procurement manual, 9 and further standardising product specifications and requirements.

The SFP procurement manual, published in August 2010, provides a step-by-step guide for all stages of the procurement cycle (i.e. from tender planning and organisation to contract award) and standardises existing procedures in the Mexican public administration. It also contains FO-CONs, templates for the different acts of the procurement cycle, such as the

annual procurement plan, requests for quotes and the document containing market-research results. 10 These templates are available on CompraNet website and SFP's online library 11 and their use is uniformly mandatory (unless specific requirements justify the use of a different format).

In 2011, at the time of OECD's review of IMSS procurement practices, the SFP procurement manual had only recently come into force and its use had not yet become widespread among IMSS procurement officials. At the time, tenders often had different requirements depending on the good or service to be procured, the purchasing unit or even the procurement official in charge. Since 2011, significant progress has been made within IMSS in standardising procedures and documents, particularly at the central level. Central IMSS services confirmed that they strictly adhere to the manual and use FO-CON templates for all contracting processes.

Some disparities in the use of standardised procedures still remain at the local (delegation or UMAE) level. The OECD's review found that 6 out of the 35 delegations and 7 of the 25 UMAEs do not always use FO-CON forms or use modified versions of them. 12 Potential bidders may be discouraged from participating in IMSS delegation contracting procedures if they have to satisfy requirements that are not requested by other public agencies or by central IMSS. The OECD encourages IMSS to continue its efforts to harmonise and standardise its procedures, particularly at delegation level.

IMSS compiles and uses a series of catalogues of standardised products for its procurements. The OECD recommends that these cover as many of the products and services that IMSS sources as possible. Its use should be made obligatory for all procurement procedures (both at central and local level) to ensure uniformity of products purchased and enable better planning on the part of actual and potential suppliers. This will help towards wider participation in tenders, as well as limiting instances of unduly disqualifying otherwise eligible suppliers.

Box 4.1. Cuadros Básicos, the IMSS product catalogues

IMSS publishes and uses six catalogues of products its units can draw on:

- Catalogue of Diagnostic Aides (*Cuadro Básico Auxiliares de Diagnóstico*)
- Catalogue of Medical Equipment (*Cuadro Básico de Equipo Médico*)
- Catalogue of Medical Instruments (*Cuadro Básico de Instrumental*)
- Catalogue of Medical Material (Cuadro Básico de Material de Curación)
- Catalogue of Medicines (Cuadro Básico de Medicamentos)
- Catalogue of Prosthetic Products (Cuadro Básico de Osteosíntesis y Endoprótesis)

These are based on the sectorial product catalogues (Cuadros Básicos) published and maintained by the General Health Council of Mexico (Consejo de Salubridad General, CSG).

In order for an innovative, single-source product to be included in the IMSS catalogue, an application is submitted – along with supporting documentation – to show that the product is better or less expensive than equivalents already on the list. Generic medicines are included in the catalogues once the patent of a listed product expires.

There are no time-limits for reviewing new products for inclusion in IMSS's catalogues and the review process can be lengthy, ranging from six months for certain categories of medicines up to two or three years for more expensive medicines or other products. In 2016, 26 medicines were added to IMSS's catalogues (out of 59 applications, a 56% rejection rate, although some applications are repeated), and 10 other products.

IMSS administration, finance, and medical units are involved in the approval process. The administration unit assesses different factors including consumption levels and storage requirements. The finance unit reviews the product's cost (and in comparison with other products already in the Cuadros Básicos). The medical unit conducts the analysis and comparison with other products on the basis of active substances (such comparisons are more difficult for products other than medicines, which have to be assessed using more criteria).

New products can be added to the catalogues, but existing products may also be removed following a complaint, adverse reactions, or random (ex post) quality tests conducted by the Technical Control of Inputs unit (Coordinación de Control Técnico de Insumos, COCTI).

The use of such standardised catalogues of products is promoted as a tool to increasing tender participation (see Section 3.4). IMSS should remain vigilant, however, that it does not have the opposite effect and actually restrict access to tenders. The Cuadros Básicos should be open to new products, in a timely manner, provided that they satisfy inclusion criteria. While ensuring that the needs and quality sought by the requesting units are met, products (and their suppliers) should not be excluded from participating and competing in tenders.

4.3. Adoption of remote and electronic procedures

The adoption of e-procurement – remote, electronic procurement procedures – contributes to reducing the risks of collusion, by eliminating the need for bidders to meet in the same place to submit their bids or to participate in other stages of the tender process, such as clarification meetings. Moreover, e-procurement is likely to lower tendering costs for potential bidders and so encourage participation and increase competition in procurement.

The LAASSP allows for different methods of running public tenders: 13

- 1. In person. All the stages of the procurement (including clarification meetings, presentation and opening of bids, and the award of the contract) are run in the presence of bidders. Bids are submitted by hand or by post in sealed envelopes.
- 2. Electronically. All bidders must use CompraNet, the Mexican federal eprocurement platform, to submit their bids. All procurement stages are run though CompraNet without the need for bidders to meet in person.
- 3. **Mixed.** Bidders may choose to participate in person or through electronic means.

The latest version of CompraNet 14 allows for all stages of the procurement process to be carried out electronically, without the need to bring bidders together in physical meetings. CompraNet has been designed to allow the following functions:

- publication of a call for tender;
- receipt of questions regarding the call for tender;
- publication of the minutes of clarification meetings;
- publication of the minutes of the presentation and opening of bids; and
- publication of the contract award.

In addition, the contracting authority may publish a pre-call for tender for comments from potential bidders on CompraNet. Information relating to awarded contracts may also be uploaded to the system. The only procurement acts contracting bodies must still conduct offline are the publication of the summary of the call for tender in the Federal Official Journal; 15 of the minutes of the clarification meeting; of the minutes of presentation and opening of bids; and of the minutes of the contract award in a public and visible place located at the premises of the contracting authority (this in addition to their being published on CompraNet).16

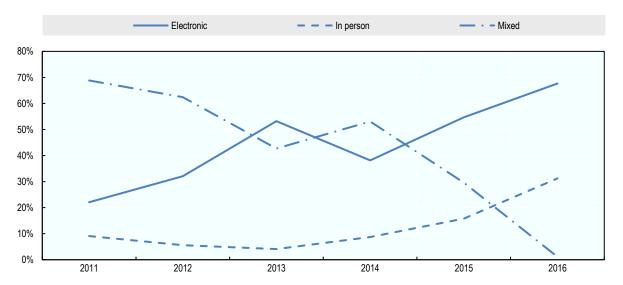
In 2011, the OECD ascertained that most stages of many tenders conducted by IMSS were already run remotely (for example, the opening of bids and reverse auctions). It was recommended that all procurement processes and all stages of the tender adopt remote and electronic bidding run through CompraNet, without the presence of bidders. In particular, the OECD suggested that to prevent bidders meeting in person, IMSS use electronic means to run clarification meetings, the presentation and opening of bids, and the award of contracts.

IMSS currently carries out clarification meetings and presentations and openings of bids in electronic tenders in closed meetings in the presence of the social witness and Internal Control Unit. While bidders are not invited to attend these meetings, the minutes are published on CompraNet for transparency purposes. For consolidated purchases in particular, IMSS broadcasts clarification meetings, presentation and opening of bids, and the award of contracts on social networks (Facebook and YouTube) and on the IMSS website. This promotes transparency, while limiting the opportunities for bidders to meet in person.

The names of potential and actual bidders are, however, identified in the minutes of clarification meetings and presentation and opening of bids. IMSS should avoid publishing this information as it may facilitate collusion. An alternative could be to identify bidders using an anonymised code.

Figure 4.1 and Figure 4.2 document the progress IMSS has made in using electronic procedures for its central purchasing during the 2011-2016 period. The ratio of electronic tenders organised centrally has increased from just over 30% in 2012 to just under 70% in 2016. Mixed tenders are being phased out and replaced both by electronic and in-person tenders.¹⁷ In terms of value, the progression has also been positive, the ratio of electronic procedures growing to almost 90% in 2016; the value of mixed tenders being almost entirely absorbed by these electronic procedures.

Figure 4.1. Ratio of IMSS central tenders run electronically, in person or through mixed procedures



Note: Data for 2011 are incomplete; the percentages shown in the chart correspond to those tenders for which information is available.

Source: CompraNet data of IMSS tenders.

0%

50% 40% 30% 20% 10%

Electronic — In person — Mixed

100%
90%
60%
40%
20%
10%

Figure 4.2. Share of value awarded by IMSS following central tenders run electronically, in person or through mixed procedures

Note: Data for 2011 are incomplete; the percentages shown in the chart correspond to those tenders for which information is available.

2014

Source: CompraNet data of IMSS tenders.

The figures below indicate that, while less pronounced, the progress in the use of electronic tenders is also evident at delegation level. The ratio of mixed and in-person tenders remains high, however, representing more than 60% of tenders and a corresponding value of over 35% in 2015 and 2016. Unlike central procurement, delegations and UMAEs are still using mixed tenders. This is a more serious concern, given that, according to IMSS, most bidder interaction in mixed tenders is done in person.¹⁸



Figure 4.3. Ratio of IMSS local tenders run electronically, in person or through mixed procedures

Note: The percentages shown in the chart correspond to those tenders for which information is available. *Source*: CompraNet data of IMSS tenders.

2013

2012

2014

2015

2016

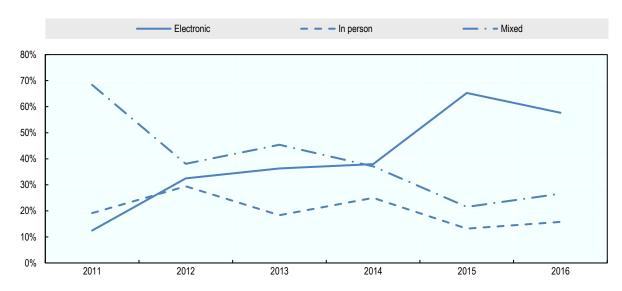


Figure 4.4. Share of value awarded by IMSS following local tenders run electronically, in person or through mixed procedures

Note: The percentages shown in the chart correspond to those tenders for which information is available. Source: CompraNet data of IMSS tenders.

With this in mind, the OECD recommends that IMSS make further efforts to increase the use of electronic means for all tenders, particularly for tenders run at delegation level. In addition to mitigating the risk of collusion, increased use of electronic tenders may also result in efficiency gains and cost savings for IMSS. While IMSS does not collect any data that would allow such savings to be measured, there are a number of ways that savings can be made: 1) the direct submission of proposals on the CompraNet platform frees resources otherwise used to digitise documents; 2) time, resources and space for storage of documents are also saved; 3) clarification meetings, presentation and opening of bids and award of contracts conducted without bidders have lower organisational and hosting costs.

It has been estimated that the potential impact of electronic procurement on efficiency gains may result in savings of at least 12% of the transaction costs related to procurement workflows (OECD, 2018c).¹⁹

4.4. Co-operation with COFECE

In 2011, the OECD commended IMSS efforts to involve COFECE in discussions with SFP (see Section 4.1) and to consult with COFECE on tender design.²⁰ It recommended formalising and expanding this collaboration with COFECE by signing an official protocol of co-operation.

On 16 July 2014, IMSS and COFECE signed an agreement to lay the foundations of closer co-operation and to establish the necessary implementation mechanisms. The agreement explicitly acknowledged that IMSS and COFECE would: 1) guarantee the design, development and implementation of contracting procedures that promote competition; and 2) promote the exchange of information between the two organisations to help detect collusive behaviour in IMSS procurement. For those objectives to be achieved, the

agreement provided for capacity building of IMSS procurement officials; the promotion of competitive procurement processes through COFECE advice on the design, development and implementation of market research and contracting procedures; the exchange of information; and the creation of a working group in charge of executing the agreement itself.21

The OECD considers this agreement an extremely positive initiative, which signals IMSS's commitment to fighting bid rigging in its procurement practices. Both IMSS and COFECE have confirmed, however, that the agreement has not been fully implemented in practice, so any potential benefits have not yet been fully realised.

IMSS and COFECE routinely exchange information during ongoing COFECE investigations. For instance, IMSS has co-operated with COFECE and provided information during COFECE's investigations into bid-rigging practices in the markets for latex gloves, latex condoms and latex tubes. These investigations led to a finding of infringements and resulted in fines of up to MXN 258 million in the latex-glove case (see Box 3.3) and up to MXN 112 million for the latex-condoms and tubes case. 22 Similarly, IMSS is co-operating with COFECE in the latter's ongoing investigations into the publichealth sector. Indeed, IMSS submitted the complaint that allowed COFECE to open its 2016 investigation into possible collusive agreements between companies active in the market for laboratory and analysis services²³ and is co-operating in COFECE's study of the market for the production, distribution and commercialization of medicines.²⁴

IMSS and COFECE have never co-operated outside the latter's enforcement role, however. For example, there have been no joint projects touching on the design and implementation of tenders to prevent bid rigging or to provide training. In the early years of the consolidated tenders, COFECE was invited to the clarification meetings, but its role was limited and this practice was soon abandoned. COFECE has provided training to IMSS procurement officials only once, in September 2014.²⁵

As shown in Box 4.2, co-operation between contracting authorities and competition agencies is seen as good practice across OECD member countries, and the agreement between IMSS and COFECE provides a good basis for co-operation. IMSS should work together with COFECE to develop a long-term action plan to implement the agreement. As COFECE's limited resources may not allow it to provide advice on all IMSS tender processes or to organise capacity-building actions on a regular basis, such an action plan should foresee IMSS requests for non-mandatory opinions by COFECE on strategy, design, development and implementation of market research and contracting procedures related to larger or strategic purchases. IMSS might also consider requesting COFECE capacitybuilding programmes for IMSS instructors who are training procurement officials, i.e. train-the-trainers initiatives. The OECD training manual prepared for IMSS alongside this review is a useful aid in this regard.

Box 4.2. Co-operation between contracting authorities and competition agencies in Canada, Colombia, Hungary and Slovak Republic

Canada's Competition Bureau has prioritised reaching out to public procurement organisations at all levels of government and provides training on fighting bid rigging to employees of Public Services and Procurement Canada (PSPC), the federal government's principal procurement agency.1 These presentations aim to provide PSPC's procurement officials with the knowledge necessary to detect, deter and report bid rigging to the Bureau, and include information on, among other subjects, bid-rigging provisions in the law; common forms of bid rigging; the characteristics that make an industry more susceptible to bid rigging; the warning signs for possible bid rigging; and the techniques that can be used to prevent bid rigging. Over the years, the Bureau and PSPC have worked together to address the challenges posed by bid rigging. PSPC refers bid-rigging complaints and cases to the Bureau for investigation, for example, and the Bureau provides annual training to PSPC staff on bid-rigging prevention. The two authorities have also signed a MOU that aims to strengthen the prevention, detection, reporting and investigation of possible cartel activity, including bid rigging, in procurement processes and real-estate transactions that fall under PSPC's responsibility. For the Bureau, this MOU is the first of its kind. Both organisations benefit from sharing each other's expertise and knowledge. They also collaborate in training and awareness programmes to educate other relevant stakeholders on how to detect and prevent cartel activity.

The Colombian Competition Authority (Superintendencia de Industria y Comercio, SIC) and the Colombian national procurement agency Colombia Compra Eficiente, have established a strong working relationship involving exchanges of information and consultations to facilitate early detection of collusion, on the basis of recommendations made by the OECD in its assessment of public procurement in Colombia (OECD, 2014a). The two agencies are in the process of concluding a co-operation agreement to formalise their partnership.

The Hungarian Competition Authority (Gazdasági Versenyhivatal, GVH) and the Public Procurement Authority of Hungary (Közbeszerzési Hatóság) put in place a cooperation agreement in December 2012 to enhance the efficiency of the fight against bid rigging. The agreement covers expert meetings, transparency of procurement data and awareness-raising tools on collusive schemes. Also, since 2012, the GVH has a webpage dedicated to collusion in public procurement with concrete examples and guidance for suppliers.

The **Antimonopoly Office of the Slovak Republic** (Protomonopolný úrad Slovenskej republiky) has concluded memoranda of co-operation with the Office of Public Procurement (UVO) and the Supreme Audit Office of the Slovak Republic to enhance co-operation and the exchange of information. It also increased advocacy towards municipalities.

¹ Previously known as Public Works and Government Services Canada, PSPC was renamed in 2016. Source: OECD (2014a), Fighting Bid Rigging in Public Procurement in Colombia: A Secretariat Report on Colombian Procurement Laws and Practices

4.5. Recommendations for action

- IMSS should strengthen its engagement with SFP in terms of best practices on procurement strategies and design.
- IMSS should continue its informal discussions with SFP in relation to various aspects of the tender processes. It should also explore more formal channels, such as working groups and roundtables, in order to arrive at concrete actions.
- IMSS should continue its efforts to harmonise and standardise its procedures, particularly at delegation level.
- The catalogues of standardised products compiled by IMSS for its procurements should cover as many of the products and services that it sources as possible; their use should be made obligatory for all procurement procedures.
- IMSS should remain vigilant that standardisation does not inadvertently restrict access to tenders, for example, by ensuring that product catalogues remain open to new products and services.
- IMSS should avoid publishing the names of potential and actual bidders in the minutes of clarification meetings and presentation and opening of bids. An alternative could be to identify bidders with an anonymised code.
- IMSS should make further efforts to increase the use of electronic means for all tenders, particularly those organised at delegation level.
- IMSS should work together with COFECE to develop a long-term action plan to implement the IMSS/COFECE agreement, which foresees COFECE providing advice to IMSS on promoting competition in its tenders and training to its staff
- IMSS can consult COFECE on tender design, market research and contracting procedures, particularly for larger or strategic purchases.

Notes

- ¹ Social witnesses are individuals who participate in all stages of a public tender and observe the proceedings. At the end of the procedure they provide SFP and public agencies with a statement containing their remarks about the specific tender (e.g. whether they detected any irregularity) and recommendations on how to improve transparency, fairness and legislation of public procurement.
- ² Article 7 of the LAASSP provides that SFP, within the scope of its powers, will interpret the LAASSP and issue the administrative provisions that are strictly necessary for proper compliance with the law.
- ³ Article 22, section VI, subsection d of the LAASSP provides that SFP, through internal control bodies, participates as an adviser in IMSS committees and subcommittees of acquisitions, leases and services, giving a reasoned opinion on matters known to the committees.
- ⁴ SFP may carry out visits and inspections that it deems pertinent to the agencies and entities that carry out acquisitions, leases and services, and may also request from public officials and suppliers participating in procurement procedures all data and reports related to the procurement process. See Article 57 of the LAASSP.
- ⁵ See Articles 59 and 62 of the LAASSP.
- ⁶ See Article 65 of the LAASSP.
- ⁷ See Article 26 Ter of the LAASSP.
- ⁸ See Article 4.29 of the POBALINES.
- ⁹ Manual Administrativo de Aplicación General en Materia de Adquisiciones, Arrendamientos y Servicios del Sector Público, first published 9 August 2010, last amended 3 February 2016.
- ¹⁰ Existing FO-CONs include: FO-PPP-01 Annual procurement plan order of supply; FO-70-30-01 Calculation of the 30% referred to in Article 42 of the LAASSP; FO-CON 1 Order of supply; FO-CON-02 Proof of stock; FO-CON-03 Requisition; FO-CON-04 Request for quotes; FO-CON-05 Results of the market investigation; FO-CON-06 Calendar of events; FO-CON-07 Summary of the call for tenders; FO-CON-08 Minutes of clarifications meeting; FO-CON-09 Checklist for reviewing proposals; FO-CON-10 Minutes of presentation and opening of proposals; FO-CON-11 Result of the technical evaluation; FO-CON-12 Result of the economic evaluation; FO-CON-13 Minutes of the award decision; FO-CON-14 Stratifications of MSMEs.
- 11 www.funcionpublica.gob.mx/unaopspf/dgaadq/manual adq ag.htm.
- ¹² A majority of delegations report using the Manual and the FO-CONs in all their procurement processes. Aguascalientes uses it in 67% of its processes; Colima considers that most (but not all) of its requirements are included in the templates; Hidalgo uses the forms 90% of the time; Tabasco has been using the templates depending on its needs; Veracruz Sur uses 98% of the forms; Torreón uses the forms 95% of the time; and Zacatecas says that it uses a version of the template tailored to IMSS specificities. In the case of UMAEs, seven say they do not use them all of the time, to differing degrees. For example, Ginecología CMNO finds the standard forms outdated and so not relevant to its procurement, while Especialidades Veracruz has created its own forms.
- ¹³ Article 27 of the LAASSP.
- ¹⁴ CompraNet 5.0 was launched in 2010 and upgraded in 2015.
- ¹⁵ Article 30 of the LAASSP.
- ¹⁶ Article 37 bis of the LAASSP.

- ¹⁷ The increased use of electronic tenders by IMSS is accompanied by an equivalent increase in their use by bidders, even in the case of mixed tenders. For example, for the 2013 consolidated tender exercise, 4-23% of bidders in each of the mixed tenders elected to submit their offer electronically; for the 2015 tender, this share had grown to 43-52%.
- ¹⁸ In this regard, IMSS has indicated that one of the reasons for suppliers to participate in person is the lack of training in the use of CompraNet. IMSS has also indicated that, according to some suppliers, the CompraNet platform is not suited to the upload of large technical and economic proposals. These assertions have not been corroborated by stakeholders, who have instead observed that participants in tenders prefer electronic to in-person interactions during a mixed procedure.
- ¹⁹ The SFP commissioned a multi-stakeholder review of CompraNet see OECD (2018c). This review, co-ordinated by SFP and the OECD (with the participation, among others of COFECE) aimed at identifying how CompraNet can be upgraded to meet the needs of stakeholders and to be aligned with international best practice.
- ²⁰ For example, COFECE recommended that IMSS modify the way its contracts were split between suppliers from 50-50 to 80-20. This way, bidders would compete more aggressively for the biggest part of the contract and collusive agreements aimed at sharing the contract would be discouraged.
- ²¹ See "Convenio de coordinación entre COFECE y el IMSS", the agreement between COFECE and IMSS of 16 July 2014.
- DE-024-2013 See Case files DE-024-2013-I. and http://cofece.mx/CFCResoluciones/docs/Asuntos%20Juridicos/V250/0/4159080.pdf. The decisions concerning these cases may be subject to appeal.
- ²³ See IMSS press release, <u>www.imss.gob.mx/prensa/archivo/201603/028</u>.
- files DE-011-2016 See http://dof.gob.mx/nota_detalle.php?codigo=5432958&fecha=13/04/2016 and www.dof.gob.mx/nota detalle.php?codigo=5457366&fecha=19/10/2016.

References

OECD (2018c), Mexico's e-Procurement System: Redesigning CompraNet through Stakeholder Engagement, OECD Public Governance Reviews, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264287426-en

OECD (2014a), Competition Committee. Fighting Bid Rigging in Public Procurement in Colombia: A Secretariat Report on Colombian Procurement Laws and Practices

OECD (2011), Fighting Bid Rigging in Public Procurement in Mexico: A Secretariat *IMSS* **Procurement** Regulations and Practices, http://oecd.org/competition/abuse/49390114.pdf

²⁵ Also see section 9.1.

5. Fighting practices that may facilitate collusion

The 2011 OECD review of IMSS procurement practices included recommendations on dealing with joint bids, split awards and sub-contracting, which are all likely facilitators of collusive agreements as they enable competitors to exchange information and share markets. In particular, the OECD recommended that IMSS require suppliers to provide adequate justification for joint bids and disclose sub-contracting upfront. IMSS has reduced the frequency with which split-contract awards are used and so encouraged more aggressive bidding, in line with OECD best practices. Finally, too much transparency in public procurement may facilitate collusive agreements, so changes to the type and breadth of information made available by IMSS prior to its procurement procedures are recommended.

5.1. Joint bids, split contracts and sub-contracting

5.1.1. Joint bids

The LAASSP allows the submission of joint bids unless the contracting authority opposes it for justified reasons. Any call for tenders must either include the requirements for the submission of joint bids or the indication that joint bids will not be accepted and the reason.² The RLAASSP contains a non-exhaustive list of the requirements that joint bids must satisfy to be acceptable; this allows the contracting authority to consider other requirements.3

Joint bids may have pro-competitive effects and efficiencies by, for example, allowing small- and medium-sized companies – with insufficient individual capacity to respond to a large tender – to pool their capacities and jointly participate in larger contracting projects. Joint bids can, however, have the effect of reducing competition among bidders and be used as an instrument to implement a collusive scheme aimed at, for example, sharing the market among participants.

Box 5.1. Anti-competitive joint bidding in Norway

On 4 September 2017, the Norwegian Competition Authority imposed fines exceeding NOK 18 million (approximately EUR 2 million) on six electricity companies for participating in an illegal bid-rigging scheme for a tender for school buildings in Oslo.

El Proffen / EP Contracting initiated and organised the co-operation between the five competing companies for a 2014 tender for the maintenance and repair of electrical installations. Competing companies agreed on identical prices and submitted joint bids.

Notified of the suspicious behaviour by Undervisningsbygg, the contracting entity for the tender, the Norwegian Competition Authority investigated and noted in its assessment that the individual companies could have submitted independent bids.

September Source: Norwegian Competition Authority press release, 2017, www.konkurransetilsynet.no/en/news/news-archive/2017/illegal-cooperation-on-school-buildings-in-oslo/

Box 5.2. Criteria for determining whether a joint bid is pro- or anti-competitive				
Pro-competitive	Anti-competitive			
Suppliers are active in different (product) markets.	Each firm has the economic, financial and technical capabilities to fulfil the contract on its own.			
Co-operators provide a single integrated service that none could supply independently.	Joint bidders are the strongest competitors in the relevant market.			
Two or more providers active in different geographical areas submit a single bid for the whole of the contract area.	A joint bid does not produce any efficiencies.			
Two or more providers combine their capacity to fulfil a contract that is too large for either individually.	A consortium allows its members to exchange sensitive information that might harm competition in future tenders.			

Ray 5.2. Critaria for datarmining whather a joint hid is pro- or anti-compatitive

In 2011, the OECD recommended that IMSS require (and make explicit in its calls for tenders) that joint bids would only be allowed when they could be justified for procompetitive reasons. Pro-competitive joint bids could include cases where:

- two or more suppliers active in different geographic areas of Mexico submit a single bid to distribute required products to larger parts of Mexico or the entire country;
- two or more suppliers without the scale to bid independently for a large-volume contract (say at IMSS central level or in the consolidated tenders) combine their capacity to allow them to do so.

The OECD's fact-finding mission confirmed that this recommendation has not been implemented: the requirement for a (pro-competitive) justification for joint bids is not imposed.

IMSS should consider requiring information from bidders that is useful to the assessment of a joint bid's pro-competitive effects (such as an explanation of why bidders are not presenting separate bids). In order for procurement officials to carry out this assessment, IMSS should set clear and specific criteria for determining the pro-competitive nature of joint bids (see Box 5.2). COFECE can provide useful guidance regarding these criteria.⁴

The IMSS market-research unit, whose mandate is to support more effective tendering by collecting knowledge of relevant markets and potential sources of supply, can provide market insights to inform the assessment of bids and the pro-competitive nature of joint bids. For example, a supplier that has provided a quote during the market-research stage (implicitly declaring the capacity to fulfil a contract individually) will not be expected to place an offer jointly with other suppliers.

Unfortunately, information on joint bids is not currently recorded in the tender or contract data that IMSS maintains. In order for bidding behaviour to be monitored and used in this context, IMSS should include information on joint bids in the databases it uses (see Section 8.2).

5.1.2. Split contracts

The Mexican regulatory framework on public procurement stipulates that public agencies may split a contract among multiple bidders and leaves the final decision with each public entity. IMSS decides on split awards based upon the outcome of market investigations.

At present, if a contracting entity decides to split the award of a contract, it will have to make an explicit reference to the conditions attached in the call for tender. It should indicate: 1) the number of bidders to whom the contract will be awarded; 2) the percentage of the contract value that each bidder will be awarded; and 3) the maximum difference in price between successful bids to allow the awarding of a split contract (which may not be higher than 10% from the lowest bid). The Mexican Competition Authority may issue nonbinding recommendations regarding the splitting of contracts.⁵

A "winner-takes-all" format encourages aggressive bidding and is more likely to yield the best price for IMSS. This may not be the case when bidders know that a contract may be split as it gives them an increased incentive to agree or (tacitly) converge on an offer price. This sort of (implicit or even explicit) market-sharing agreement is motivated by the understanding that it is probable that each bidder be awarded part of the contract and facilitated by the fact that the acceptable price difference for a split contract is known beforehand. This then serves as a focal point upon which offers can converge.

In 2011, the OECD recommended that IMSS reserves split contracts for exceptional circumstances, for example, to encourage new entry in a market (see Section 3.4). The OECD further recommended that if IMSS considers it beneficial to assign parts of the required volumes to multiple suppliers (for example, to guarantee security of supply), it should instead repackage the contract into smaller lots and assign each to a single provider. The OECD also recommended that, if contracts were split, this should be done by assigning unequal parts to suppliers as this can disrupt or deter collusion as each colluding party's gains and risks would be unbalanced.

The OECD considers that IMSS is implementing this recommendation as the ratio of single-contract awards has been increasing since 2011. Figure 5.1 and Figure 5.2 show a downward trend in split awards in contracts tendered centrally. IMSS policy on splitting centrally awarded contracts has evolved from a 60/40 split ratio (as previously prescribed by the RLAASSP), to 50/30/20, and has now settled on a 80/20 split (for medicines, in particular). In the period 2013-2016, 65-71% of the value of split central contracts was allocated on an 80/20 basis. This development also reflects another change in IMSS's approach to split awards. Prior to 2015, IMSS contracts were split among multiple suppliers, namely all those placing bids within the range of price differentials indicated in the call for tenders. Since 2015, however, IMSS has largely restricted the number of cosuppliers to two.

Single supplier 60/40 80/20 50/30/20 Other 100% 90% 80% 70% 60% 50% 97% 91% 80% 40% 30% 20% 10% 0% 2009 2010 2012 2013 2014 2011 2015 2016

Figure 5.1. Split of IMSS central contracts, by number of items

Note: Central contracts include those awarded after consolidated tenders.

Source: OECD analysis of IMSS tender data.

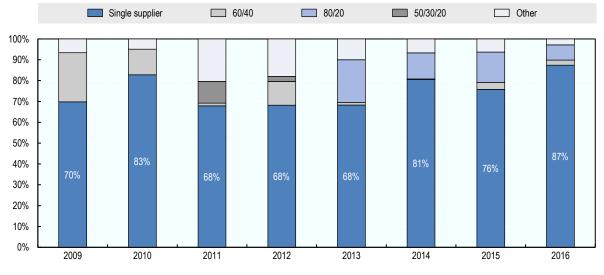


Figure 5.2. Split of IMSS central contracts, by value

Note: The value of central contracts includes IMSS's share of the contracts awarded after consolidated tenders. Source: OECD analysis of IMSS tender data.

Contracts awarded following tenders at delegation or UMAE level also exhibit a similar pattern. More specifically, as can be seen in Figure 5.3 below, IMSS delegations and UMAEs have also moved away from using split awards and have used almost exclusively single suppliers since 2014. This is partly because a significant share of local requirements are tendered at the central level, so lower volumes and values make split contracts less relevant.

Other 60/40 Single supplier ♦ Single supplier (% of items) 100% 90% 80% 70% 60% 100% 50% 97% 97% 40% 30% 20% 10% 0% 2009 2010 2011 2012 2013 2014 2015 2016

Figure 5.3. Split of IMSS local contracts, by value

Source: OECD analysis of IMSS tender data.

While industry stakeholders say that the 80/20 split of contracts does not encourage competition as 20% is too low a share for the second supplier – and would prefer a 60/40 - the OECD recommends, for the reasons set out above, that if a split contract is awarded, it should be done only in exceptional circumstances and using the 80/20 ratio. IMSS should continue to give preference to single-contract awards to encourage more aggressive bidding (to secure 80% rather than 60% of the contract). The heavily uneven split between two suppliers would have the effect of disrupting collusion.

The OECD also recommends that a viable alternative to splitting contracts is repackaging them into smaller lots, when market research shows that smaller-scale suppliers could be credible providers for parts of the demand. IMSS had adopted repackaging on a small number of occasions in the past as seen in the case studies discussed in Section 11. . One example is the multi-year tender for integrated services run in 2016, which was organised along geographical zones (see Sections 3.3 and 12). Similar initiatives have been undertaken by the European Union, United States and Chile, as shown in Box 5.3.

Box 5.3. Lots in public procurement

European Union

The European Union Directive on Public Procurement (2014/24/EU) encourages public procurement authorities to divide contracts into smaller or more specialised lots to make it easier for smaller firms to bid. Such division can be done on a quantitative basis - adapting the size of the individual contracts to the capacity of small and medium enterprises (SMEs) - or on a qualitative basis between different trades or project phases to adapt the content of individual contracts to SMEs' speciality sectors. When a contract can be split into lots, but a contracting authority decides not to, it must justify its decision. Finally, the Directive addresses overly demanding requirements for economic and financial capacity, which frequently rule SMEs out of bidding. It states that contracting authorities should not be allowed to require tenderers to have a minimum turnover disproportionate to the size of the contract; the minimum turnover requirement should not exceed twice the estimated contract value.

United States

Regulation 19.202-1 of the US Federal Acquisition Regulation (FAR) aims to encourage small-business participation in federal acquisitions. According to FAR, "small business concerns shall be afforded an equitable opportunity to compete for all contracts that they can perform to the extent consistent with the Government's interest. When applicable, the contracting officer shall take the following actions:

- a) Divide proposed acquisitions of supplies and services (except construction) into reasonably small lots (not less than economic production runs) to permit offers on quantities less than the total requirement.
- b) Plan acquisitions such that, if practicable, more than one small business concern may perform the work, if the work exceeds the amount for which a surety may be guaranteed by the Small Business Administration against loss.
- c) Ensure that delivery schedules are established on a realistic basis that will encourage small business participation to the extent consistent with the actual requirements of the government.
- d) Encourage prime contractors to subcontract with small business concerns (see Subpart 19.7)."

If the proposed acquisition cannot be divided into reasonably small lots, the delivery schedules cannot be established on a realistic basis to encourage smallbusiness participation or bundling is necessary and justified, contracting officers must justify their reasons.

Regulation 19.202-3 provides that in the event of equal low bids (regulation 14.408-6), awards shall be made first to small-business concerns.

Chile

ChileCompra establishes framework agreements for common products and services needed by the Chilean public sector. Agreements are divided into smaller regional lots so delivery in all regions can be undertaken by suppliers with the capacity to deliver regionally and to support SMEs that can only supply small quantities. ChileCompra is able to divide contracts into smaller lots when its market research suggests it is possible.

Sources: European Union Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC, Official of the 94/65, European Union, L http://eur-lex.europa.eu/legalcontent/EN/TXT/PDF/?uri=CELEX:32014L0024&from=EN. European Commission (2013). US Federal Acquisition Regulation, www.acquisition.gov/browsefar. OECD (2016c).

In implementing this recommendation, IMSS should remain aware that splitting a contract into lots carries the risk of facilitating market allocation among parties to a collusive agreement. Box 5.4 below provides guidance on when to split contracts into lots and how to do it without having an adverse effect on competition.

Box 5.4. OECD checklist for protecting competition when splitting contracts into lots

When to split contracts into lots

A decision on splitting contracts into lots may be taken when the contracting authority is concerned about the risk that large bundled contracts may reduce competition. This could be because:

- Efficient SME or specialist firms are unable to provide the full bundle of goods or services that the procurer is purchasing.
- Where public purchases account for all or most of the market for a certain good or service, awarding the contract to a single firm may increase the market power of their chosen supplier and reduce the number of bidders in future tenders.

Before splitting the tender into lots to address these two concerns, procurers should conduct a market analysis to help consider whether, given the type of product or service that they are procuring, tendering smaller lots is the best solution.

- On the first concern, are there no other ways to encourage participation by smaller specialist firms? For example, could simplifying the bidding procedure help them bid for the contract? Might they be able to form a joint bidding consortium?
- On the second concern, would the losing bidders exit the market and therefore not participate in future procurements, or would they, and others, bid again the next time the contract is tendered? Similarly for future procurements, would the strength of rival bids be limited by their lack of experience or would they be able to strengthen their bids and demonstrate their experience by poaching staff from the incumbent contractor?

How to split a contract into lots without reducing competition

At the **pre-tendering stage**, the contracting authority should:

- Provide all potential bidders with clear tender documentation including all the relevant information available on the product or service to be procured in order to minimise any advantage to the incumbent supplier (e.g. electronically available and free of charge).
- Consider dividing a contract into lots when it is aware of small or specialist firms that will not otherwise participate in the bidding. For example, it should not carve out an additional lot if it expects there to be fewer competitors for that lot than there would be for the bundle of lots.
- Allow a bidder to make bids for different combinations of lots (so-called package bidding) in order to obtain any cost synergies available from providing a larger bundle of goods or services. Obtaining these synergies may, for example, encourage non-local bidders to bid for packages of different lots even if they are unwilling to bid for individual lots.
- Use award limits rather than participation limits in those cases where they wish to prevent all lots being awarded to a single firm, but only if confident that the benefits will outweigh the ensuing loss of competition for the contract.
- Consider making the number of lots smaller than the number of expected bidders providing this does not create inefficiency. This can make it more difficult for colluding bidders to agree a division of lots and so improve achieved value.
- Consider making the lots different in size from the market share of the bidders. This can make it more difficult for colluding bidders to agree a division of lots and so improve value achieved providing it does not create inefficiency.
- Consider in repeated procurements making the division into lots unpredictable (for example, by changing the size or composition of the lots), and making bidders aware of this unpredictability. This can reduce the risk that lot division facilitates collusion and so improve achieved value, providing it does not create inefficiency.

At the **tendering stage**, the contracting authority should:

- Refer to the competition authority any suspicions of actions taken by incumbents to obstruct rivals' abilities to put together an attractive bid. The competition authority is able, and may decide, to determine whether this constitutes anti-competitive exclusionary conduct.
- Refer to the competition authority any suspicions of actions taken by bidders to rig the bidding.
- Be aware that joint bidding may be anti-competitive in cases where the bidders are capable of submitting separate bids.

Source: Adapted from the OECD Public Procurement Toolbox, Checklist for protecting competition when splitting contracts into lots,

http://www.oecd.org/governance/procurement/toolbox/search/checklist-protecting-competitionsplitting-contracts-lots.pdf.

5.1.3. Subcontracting

Mexican procurement legislation is silent about subcontracting. While it can be considered a legitimate business practice in most cases, subcontracting can also be used as means to implement a collusive agreement.⁷ This is the case, for example, when the winner of a tender assigns part of the execution of the contract to a rival as compensation for the rival having put in a knowingly worse offer or not having submitted a bid.

In its 2011 report, the OECD recommended that IMSS asks bidders to disclose in their bids: 1) the intention to use subcontractors; 2) the identity of the subcontractors; and 3) the reasons why subcontracting is necessary for the proper performance of the contract.

The procurement legislation currently in force does not explicitly provide for a mechanism that requires bidders to submit this information, nor does it outline specific requirements.8 According to the LAASSP and the RLAASSP, the call for tenders should contain all the requirements with which potential bidders must comply. It is then for the contracting authority to indicate which of these requirements are mandatory and may result in a rejection of the bid should they not be met.

While the OECD understands from IMSS that subcontracting is not prevalent in its procurement processes and contract execution, the recommendation is repeated that IMSS request that bidders submit information on subcontracting in their tender.

5.2. Limitations on information published in the annual procurement plan

The publication of an annual procurement plan keeps suppliers informed of procurement opportunities and allows them to study the terms, build a business case, and eventually, submit an offer. In many ways, it can therefore be said to have a pro-competitive effect (see Section 3.4 on publishing information to allow market players to plan ahead and encourage participation in tenders). However, too much transparency in public procurement may facilitate collusive agreements. For instance, as noted in OECD (2011), too detailed an annual procurement plan, such as one that includes the estimated value of each item, could serve as the basis of a collusive scheme.

In 2011, the OECD recommended that IMSS should reassess the amount and level of detail of the information published in its annual procurement plan, within the constraints of the legal framework regulating public procurement.

Between 2011 and 2016, there was no change in the way information was recorded and presented in annual procurement plans. The IMSS annual procurement plan and its updates have to be registered on the CompraNet website, in accordance with the processes established in the CompraNet user manual.9 CompraNet's uploading system for annual procurement plans does not allow for any changes, such as modifying or aggregating information and/or data. The exact references and descriptions of the goods and services to be acquired are indicated according to CompraNet's catalogues. Importantly, the estimated value, quantities, measuring units and timeline of the purchase also have to be filled in.

In view of this, IMSS should consider discussing with SFP a proposal for a more flexible way of registering and displaying annual procurement plans on CompraNet. This would also give IMSS the same flexibility in how and what it shows in the annual procurement plan in the version published on its website. 10 The fact that CompraNet and Mexican procurement legislation are currently been reviewed, modified and redesigned creates the potential to address this issue with SFP. As an example, CFE only publishes a (redacted) public version of its procurement plan (OECD, 2018a).

5.3. Recommendations for action

- IMSS should make explicit in its calls for tenders that joint bids are only allowed when they can be justified for pro-competitive reasons. It should also set clear criteria regarding the methods it uses to assess them. IMSS should require the information that will allow it to perform this assessment. The market-research unit can advise on assessing the pro-competitive effects of joint bids.
- IMSS should record information on joint bids in its databases.
- IMSS should avoid split awards. Contract should be awarded to more than one bidder only in exceptional circumstances and using an 80/20 ratio.
- IMSS should explore the option of more frequently dividing its requirements into lots, in particular when market research shows that smaller-scale suppliers could be credible providers for portions of the tender. Lots should be designed so as to achieve best market outcomes.
- IMSS should request that bidders disclose subcontractors in their bids.
- IMSS should engage in discussions with SFP so that a more flexible way of registering the annual procurement plans on CompraNet is put in place.

Notes

References

COFECE (2018), Agenda de Competencia para un ejercicio íntegro en las Contrataciones Públicas, www.cofece.mx/wp-content/uploads/2018/07/CPC-ContratacionesPublicas.pdf

European Commission (2013), Commission follow-up to the "TOP TEN" Consultation of Regulation, **SMEs** EUhttp://eur-lex.europa.eu/legalcontent/EN/TXT/PDF/?uri=CELEX:52013DC0446&from=EN

OECD (2018a), Fighting Bid Rigging in Public Procurement in Mexico: A Review of CFE Procurement Rules and Practices, http://oecd.org/daf/competition/OECD-CFE-report-2018.pdf

OECD (2016c), Improving ISSSTE's Public Procurement for Better Results, OECD Public Reviews. **OECD** Publishing, Governance Paris, http://dx.doi.org/10.1787/9789264249899-en

OECD (2011), Fighting Bid Rigging in Public Procurement in Mexico: A Secretariat *IMSS* Procurement Regulations and Practices, http://oecd.org/competition/abuse/49390114.pdf

¹ Articles 34 of the LAASSP and 39 of the RLAASSP.

² Article 39 of the RLAASSP.

³ Article 44 of the RLAASSP.

⁴ See also COFECE (2018).

⁵ Article 29 and 39 of the LAASSP.

⁶ See point 2 of the OECD Guidelines for Fighting Bid Rigging in Public Procurement, www.oecd.org/daf/competition/guidelinesforfightingbidrigginginpublicprocurement.htm.

⁷ See also "La subcontratación puede utilizarse como mecanismo de colusión" in COFECE (2018).

⁸ See Article 29 of the LAASSP and section IV of Article 39 of the RLAASSP.

⁹ Manual de Usuario para Administradores y Capturistas encargados de integrar y publicar los Programas Anuales de Adquisiciones, Arrendamientos y Servicios del Sector Público y de Obras Relacionados con las Servicios Mismas (PAAASOP), https://compranetinfo.funcionpublica.gob.mx/descargas/Manual_PASOP.pdf.

¹⁰ http://compras.imss.gob.mx/?P=imsscompra

6. Increased use of competitive procurement mechanisms

IMSS, like other public bodies, can use three types of procurement procedures: a public tender; an invitation to no fewer than three suppliers; or a direct award. It can also determine whether non-Mexican bidders are allowed to participate in the tender and so whether a procurement process is national, international under free-trade agreements, or open international. The more open the tender format the higher the participation and the more aggressive competition is among bidders. The OECD encourages IMSS to limit uses of exceptions to the public-tender procedure and to open up participation in its procurements to non-Mexican suppliers so it can attract lower offers and disrupt possible collusive behaviours. To further this objective, IMSS should also introduce a higher degree of variability and unpredictability in the way it procures products and services. Finally, a requirement that bidders sign a certificate of independent bid determination (CIBD) could also discourage bid rigging by raising awareness about such practices' illegality and signalling IMSS's zero tolerance.

6.1. Limitations to the use of exceptions to public tenders

IMSS, like other public bodies, can use three types of procurement procedures:¹

- 1. **Public tender**. This procedure stipulated in the Procurement Act should be used, except in exceptional circumstances. It is the least restrictive procedure, with any eligible supplier able to present a bid.
- 2. **Invitation to no fewer than three suppliers** ("restricted invitation").
- 3. **Direct award**. This is the most restrictive procedure, in which the supply contract is awarded to a specific provider.

The Procurement Act states that these last two procedures are exceptions and lists the specific conditions under which they can be invoked (see Section 2.3).² These include products for which there is only one supplier or product on patent; unforeseen circumstances or a force majeure that make it difficult to organise a public tender; a previous public tender being declared void; assignment of a rescinded contract to the second bidder (provided that the difference with respect to the initial winning bid is less than 10%).

Direct awards and restricted invitations can be used for contracts up to a certain value (set in the federal budget), but the total annual value of all contracts awarded using such procedures must not exceed 30% of the annual procurement budget.³ This applies both to IMSS central purchasing, as well as to each IMSS delegation and UMAE.

In 2011, the OECD recommended that IMSS limit the use of exceptions and so encourage as wide a participation as possible in its procurement. This would have positive effects in terms of competition between bidders and making potential collusive agreements more difficult to establish, implement and maintain.

The evolution in the use of the different procedures in IMSS public procurement can be seen in Figure 6.1 and Figure 6.2.⁴ The former shows the share of IMSS spending on acquisitions after procedures organised at the central level. With the exception of 2013-2014, when there was a higher ratio of direct awards, public tenders have consistently accounted for over 90% of all central contract awards, reaching a high of almost 99% in 2016.⁵ The use of exceptions to public tenders accounted for an even lower share of IMSS's spend at central level if consolidated tenders are taken into account. These almost invariably follow a public tender, other than for medicines on patent, for which a direct award reflecting set prices negotiated at a national level is followed.

Figure 6.1. Share of IMSS central contracts awarded using each procedure, by value

Note: Excludes procurement of patented or single-source products, where those could be identified. Central contracts exclude consolidated tenders.

Source: OECD analysis of IMSS tender data.

All items - Medicines Medical material 100% 90% 80% 70% 60% 50% 40% 30% 20% 10% 0% 2009 2013 2014 2016 2011

Figure 6.2. Share of items purchased by IMSS centrally after a public tender, by product category

Note: Excludes procurement of patented or single-source products, where those could be identified. Central contracts exclude consolidated tenders.

Source: OECD analysis of IMSS tender data.

IMSS delegations and UMAEs make more frequent use of exceptions to public-tender procedures. In part, this may be due to the fact that items are purchased locally, because of 1) non-performing (or partial performance) of contracts awarded at the central level (the deficit being met by local tenders); 2) unsuccessful tenders at the central level; and 3) emergency purchases. These are shown in Figure 6.3.

The number of products procured at the local level following a public tender has been relatively constant throughout the period 2011-2016 at around 80% of all products (70% of medical materials, and around 30% of medicines). Overall, it is commendable that IMSS appears to have managed to contain the value share of purchases using direct awards and invitations to suppliers below the upper threshold mandated in the law. In the years 2014-2016, the overall budget allocated to such purchases was around 20% (as opposed to a ceiling of 30%).

Public tender Restricted invitation Direct award 100% 90% 80% 70% 60% 50% 40% 30% 20% 10% 0% 2011 2013 2016

Figure 6.3. Share of IMSS delegation and UMAE contracts awarded using each procedure, by value

Note: Excludes procurement of patented or single-source products, where these could be identified. *Source*: OECD analysis of IMSS tender data.

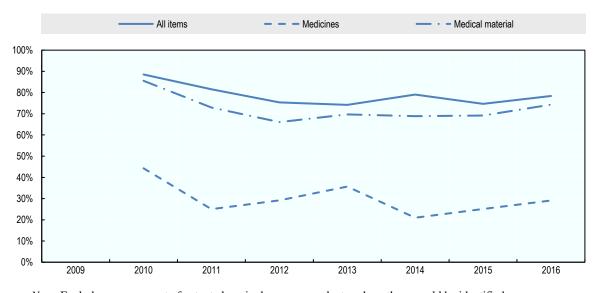
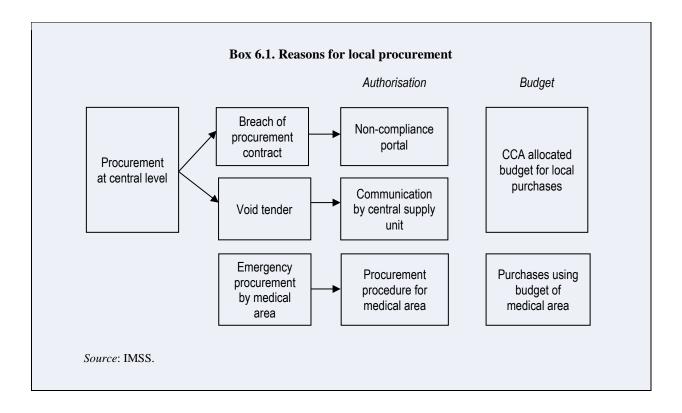


Figure 6.4. Share of items purchased by IMSS delegations and UMAEs after a public tender, by product category

Note: Excludes procurement of patented or single-source products, where these could be identified. *Source*: OECD analysis of IMSS tender data.

IMSS should continue to tighten the conditions under which exceptional procedures can be used, and further communicate to delegations and UMAEs that direct awards and invitations to no fewer than three suppliers should be reserved for exceptional circumstances. The aim should be that as little of delegations' budgets as possible is spent using these procedures.

Recommendations made or repeated elsewhere in this report will have the effect of minimising the need for deviations from public tenders. These include better planning of requirements (which will weaken the need for local or emergency purchases); strategic design of tenders and lots (which will lead to fewer tenders declared void); and better monitoring of contract performance (which will decrease the number of non-performing contracts).



6.2. Opening up participation to international bidders as fully as possible

According to the Procurement Act, during the pre-tender stage, IMSS should determine whether non-Mexican bidders are allowed to participate in the tender. ⁶ Public tenders can be of one of three types:⁷

- 1. **National.** Only Mexican suppliers are allowed to participate. National tenders may be used when one of the following conditions is satisfied: a) goods to be purchased are produced in Mexico and are of at least 50% of Mexican origin (considering the labour force and other inputs used in their production); b) the contract value is below the thresholds included in free-trade agreements signed with other countries; or, c) if the value is above such thresholds but the option to reserve the contract for Mexican suppliers has been exercised.
- 2. International under free-trade agreements (FTAs). Only Mexican suppliers and suppliers from countries that have signed a free-trade agreement with Mexico are allowed to participate. These tenders are used when: a) it is mandatory according to the FTAs signed by Mexico; or b) a previously organised national tender has been declared void because no (acceptable) bid was submitted.

3. **International open**. All interested suppliers can participate. These tenders are used when: a) a previously organised international tender subject to FTAs has been declared void because no bid or no acceptable bid was submitted; or b) it is a condition of procurement contracts that are financed with external credit awarded to the Mexican government.

FTAs include most-favoured-nation (MFN) clauses. On the basis of these clauses, when a procurement process falls under an FTA, the parties cannot favour national suppliers or national products over those coming from parties to the agreement. However, FTAs allow a part of the budget for procurements falling under the thresholds of the FTAs to be reserved for domestic suppliers. The purpose of these reserves is to favour small businesses and encourage research and development activities in the country. The Mexican Ministry of Economy (Secretaría de Economía) sets the reserve amounts and public bodies decide if they will use them and for which purchases. IMSS's allowed annual reserve was just under MXN 8.7 billion for 2018.8

For consolidated tenders, IMSS applies the reserves to purchases of ascending value, i.e. to low-value acquisitions first, scaling up to those of higher value until the whole budget for reserves has been spent. In applying this methodology, IMSS relies on the results of its market research. In particular, the reserve is allocated to those purchases for which national suppliers have submitted the lowest bids. However, price and product quotes (i.e. nonbinding indications of what is available at which price) by potential suppliers during the market-research stage may not provide a comprehensive and accurate overview of market conditions: the sample of suppliers contacted may be small or not sufficiently representative of eligible bidders and quotes may be inaccurate (see Section 7.3).9

The most open tender format available, in which all interested bidders (irrespective of origin) are allowed to participate, enhances competition among bidders and makes reaching and maintaining a collusive agreement harder. In 2011, the OECD recommended that IMSS make use of international tenders as frequently as possible, and open the tenders to non-Mexican suppliers when a national tender is declared void rather than using an exception to public tender, which is - as discussed above - also possible under the Mexican Procurement Act. 10

As shown in Figure 6.5, the number of contracts awarded through national procedures has slightly decreased over the period 2011-2016, a trend sustained in 2017. The corresponding value of those contracts does not exhibit a similar pattern, however; remaining at around 35% throughout the period, (from 26% in 2011 to 46% in 2016).

The share of national procurement is higher (measured in number of contracts) when public tenders are considered separately, most likely reflecting the fact that these tenders do not include foreign patented medicines, which are procured directly. The share of contracts awarded through national tenders has also been steadily declining, from 85% in 2011 to 75% in 2016, with the corresponding value share oscillating around the 34% mark, with the exception of 2011 (Figure 6.6).¹²

Annex 6.A provides a more detailed breakdown of the geographic cover of IMSS procurement procedures, separately for centralised and decentralised procurement and for different product types and services. This analysis demonstrates that the decline in the number of national procedures means fewer national procurements at the delegation and UMAE level, which is why the value share does not move in the same direction (given the lower spend in local procurement). There are also significant differences in the geographical scope of the procedures IMSS employs, sometimes reflecting the nature of the goods or services procured. A substantial share of IMSS expenditure on medicines (over 85% on average, 2011-2016) followed FTA or international procedures, while over 95% of the value of services sourced in the 2011-2016 period (with the exception of 2014) followed national procedures.

IMSS should continue (and intensify) its efforts to limit further the use of national tenders, in particular for products not currently open to non-national suppliers (i.e. in addition to medicines). Apart from opening national tenders that have been declared void to non-Mexican suppliers, IMSS could consider reducing the use of reserves under FTAs and rely on additional data when deciding which acquisitions are allocated to the FTA reserve. Both strategies have the potential to increase the number of bidders participating in the corresponding IMSS tenders.

IMSS can further increase the share of products procured following an international tender if it actively and purposely uses such tender types (in other words, not only resort to international tenders if other procedures have failed or conditions attached to external financial credit dictate their use). International tenders have the effect of increasing participation, hence the intensity of competition at the tender stage. IMSS can discuss with SFP whether the LAASSP can be amended to allow international tenders at IMSS's discretion.

☐ FTA International National ♦ National (% of value) 100% 90% 80% 70% 60% 50% 40% 30% 20% 10% 0% 2011 2012 2013 2014 2015 2016

Figure 6.5. Number of IMSS contracts awarded after national, FTA or international procurement

Source: OECD analysis of CompraNet data for IMSS contracts.

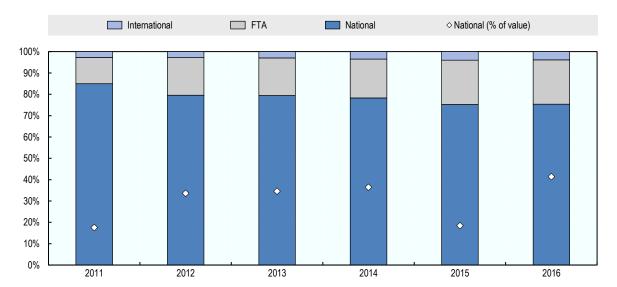


Figure 6.6. Share of IMSS contracts awarded after national, FTA or international public tenders

Source: OECD analysis of CompraNet data for IMSS contracts.

6.3. Variability in procurement and tenders

When procuring in a given market, predictable procurement time-schedules, settled tender formats and time-invariant procurement volumes can facilitate collusion by instituting a stable environment. In 2011, the OECD recommended that IMSS selectively and gradually introduce variability in its choice of tender mechanisms, tender timing and the extent of purchase consolidation in such a way to make collusion more difficult to emerge or to continue.

While timing and tender formats may vary among the procurement processes for different goods and services, the present review has confirmed that there is no established mechanism at IMSS to make the procurement of a single good or service unpredictable over time. Analysis of IMSS tender data¹³ has revealed few instances in which a degree of variability is seen in the aggregation level for a particular item's procurement. IMSS does not usually move items in and out of the consolidated tendering cycle (changing the level of volume aggregation, as well as procurement timings) or alternate use of standard tenders and reverse auctions. 14 The OECD found that:

- Less than 6% of items purchased in the 2013-2016 consolidated tenders were moved out of the consolidated procurement cycle once they had been included for at least one year.
- Just over 8% of the items purchased outside the 2013-2016 consolidated tenders were sourced locally after being procured through a central tender.
- Just over 6% of the items procured in the 2013-2016 consolidated tenders were alternated between a reverse auction and a standard procedure.¹⁵

These changes are so minimal that they may not even necessarily be attributable to targeted action to introduce variability in the procurement process; they may simply reflect, for example, the outcome of the market research or the fact that certain tenders were void. 16

The OECD repeats its advice that IMSS should take greater account of variability (or its lack) in its procurements and make it a factor explicitly considered during tender design. More specifically, a degree of unpredictability is desirable in: 1) the choice of tender format (for example, whether or not to use reverse auctions, or the evaluation criteria); 2) timing; 3) the extent of consolidation (i.e. whether to procure locally, centrally or jointly with other public bodies); 4) content (for example, how a single contract is split into lots, or whether to bundle multiple products in one lot); and other tender characteristics (such as the use of multi-year contracts or framework agreements). This applies equally to consolidated tenders, tenders held centrally, those organised at delegation or UMAE level and intersecting tenders. It also applies across all IMSS procurement, including non-durable and durable goods and services.

According to IMSS, the current procurement regulatory framework does not consider unpredictability as a relevant factor in determining the type and nature of the procurement process to be followed. In that sense, the decision regarding the design of a tender depends on the outcome of market research or on predetermined factors – for example, whether the products are covered by FTAs. Unpredictability in tenders yields long-term benefits that cannot be captured by the static market-research of each particular tender. As such, a degree of flexibility and discretion is required for IMSS to be able to implement a strategy of introducing variability in its tender design.

6.4. Requirement for a certificate of independent bid determination

The 2011 report included a recommendation that IMSS introduce a certificate of independent bid determination (CIBD) that bidders would be required to submit. A CIBD is a statement by each bidder that their submitted bid is genuine, non-collusive and made with the intention of accepting the contract, if awarded.¹⁷

A CIBD is good practice and recommended by OECD Guidelines¹⁸ and COFECE to promote competition in public procurement.¹⁹ It makes firms aware of the unlawful nature of collusive agreements; demonstrates that the contracting authority is aware of, and alert to, bid rigging; and shows the contracting authority's zero tolerance for bid-rigging practices. Moreover, it makes the legal representatives of firms more directly accountable for unlawful behaviour. As such, it becomes an important deterrent to bid rigging.

Some public authorities in OECD member countries communicate in advance the sanctions for engaging in anti-competitive conduct to deter bidders from engaging such practices.

Box 6.2. Examples of communication to bidders of sanctions for engaging in anticompetitive behaviour

In Japan, contractors are required to sign a statement under oath promising to pay a certain percentage of the contract's total as a compensation for damages in case bid rigging is discovered.

In Korea, the amount of damages for bid rigging is predetermined and included as a clause in public contracts. Bidders are therefore aware of the large sums that they risk paying if they collude. Almost all Korean public corporations follow this system, which aims to prevent, as well as punish, collusion.

Source: OECD (2016d).

The Mexican Procurement Act allows contracting authorities to request suppliers to submit a Declaration of Integrity, in which they declare under oath that they will abstain from engaging in conduct aimed at corrupting public officers²⁰ and are eligible suppliers. The latter means that they are, for example, free of conflict of interests; have not been held responsible for delays in the implementation of contracts causing harm to the public entity; have not been declared bankrupt or insolvent; or have not submitted false information in a procurement procedure.21

While none of these declarations make reference to infringements of competition law, the Mexican Procurement Act does provide that the terms contained in a call for tender may not limit competition and that all acts, contracts and agreements of bidders must comply with the Federal Economic Competition Act.²²

In 2013, IMSS started including a Declaration of Integrity in its centrally organised calls for tender. This declaration indicates that suppliers are aware of the Federal Economic Competition Act and the Federal Criminal Code and, in particular, the laws' articles referring to horizontal agreements between competitors and the pecuniary and criminal sanctions punishing these practices. The declaration also contains a statement that suppliers have submitted bids independently and have not had any communication with competitors in relation to prices; methods or formulas to calculate prices; the intention or decision whether to present an offer; or the presentation of a cover bid.

This declaration was introduced gradually for public procurement procedures, with an indication that it was a requirement imposed by COFECE, and based on a CIBD template included in COFECE's Recommendations to Promote Competition in Public Procurement (see Annex 6.B). The submission of the signed declaration is not mandatory, however, given that the Mexican Procurement Act, its bylaws and other relevant provisions do not require it. According to IMSS, suppliers cannot be disqualified if they do not sign or present the declaration annexed to their bid.

Since 2017, IMSS's Central Procurement Unit has been encouraging its contracting areas to include this declaration in all calls for tender. This is a positive step towards a more widespread use of CIBDs. It is recommended that IMSS also encourages CIBD use by IMSS delegations and UMAEs. Even if not obligatory, it raises awareness as to the unlawful nature of collusive agreements and signals to suppliers that IMSS is vigilant regarding such agreements.

IMSS may raise CIBDs in its continued discussions with SFP, with a view to finding the most appropriate way to make them a mandatory requirement for a supplier's participation in IMSS tenders.

6.5. Recommendations for action

- IMSS should continue to tighten the conditions under which exceptional procedures can be used, in particular for procurement organised by delegations and UMAEs.
- IMSS should further limit its use of national tenders, in particular for products not currently open to non-Mexican suppliers (i.e. in addition to medicines). It could also consider reducing the use of national reserves under FTAs.
- IMSS should discuss with SFP an amendment to the Mexican Procurement Act so that contracting authorities have the discretion to increase their use of open international tenders.
- IMSS should make variability and unpredictability a factor explicitly considered during tender design - in its choice of tender mechanisms, timing of tenders and extent of consolidation of purchases.
- IMSS should implement a (more) widespread use of the CIBD, including by its delegations and UMAEs.
- IMSS can propose making the CIBD a mandatory requirement for participation. If it is not legally possible to make it a requirement for participation, the CIBD can still be introduced as a voluntary document for bidders to submit. IMSS can propose to make the CIBD mandatory.

Notes

- ¹ See Article 26 of the Mexican Procurement Act.
- ² See Article 41 of the Mexican Procurement Act.
- ³ See Article 42 of the Mexican Procurement Act.
- ⁴ The shares presented in the charts are calculated on the basis of product numbers (number of product SKUs) and corresponding values. Due to limitations in the recording of tender data, it is not possible to estimate the share of tenders that follow each procedure.
- ⁵ The increase in the share of direct awards in 2013-2014 was driven by the increase in the number of directly awarded contracts for medicines procurement.
- ⁶ See Article 28 of the LAASSP.
- ⁷ See also OECD (2011).
- ⁸ The total budget reserved for national suppliers is MXN 43.4 billion. IMSS is allocated 20% of this total, of which no more than half can be spent on one type of item (with a 20% margin). In 2016, IMSS allocated 4.9% to medicines; 1.9% to medical materials, and the remainder to other items and non-consolidated procurement.
- ⁹ See OECD (2016a), according to which, many suppliers of ISSSTE have reported that they were unwilling to provide a true price quote during the market-research phase because of concerns that the information would be leaked and that their competitors would undercut their bid and win the contract. By the same token, suppliers sometimes quote inflated prices to gain margin for discounts during tenders or increase profit if they are awarded the contract.
- ¹⁰ See section VII of Article 41.
- ¹¹ The share of contracts awarded through national procurement procedures in 2017 was around 60%, with corresponding value share of 40%.
- ¹² The share of contracts awarded through national public tenders in 2017 was around 70%, with corresponding value share of 38%.
- ¹³ IMSS tender data and consolidated tender data.
- ¹⁴ Items may be taken out of the consolidated tender exercise because of a failure to attract bids at that level. A decision whether to use an auction is taken by IMSS on the basis of the outcome of the market research and on the advice of its external consultants.
- ¹⁵ These statistics exclude medicines on patent or single-sourced, which are purchased at the price negotiated by the CCNPMIS; see Section 3.2.
- ¹⁶ Due to the way tender data are recorded, information on the year tenders were conducted is not readily available; this means dates used in the analysis are not always aligned. Moreover, because of the non-standard duration of contracts, certain types of items moved from central to local purchasing may in fact reflect contemporaneous purchases.
- ¹⁷ This certificate is signed by an individual with the authority to represent the firm.

References

OECD (2016d), Fighting Bid Rigging in Public Procurement: Report on Implementing the OECD Recommendation, http://oecd.org/daf/competition/Fighting-bid-rigging-in-publicprocurement-2016-implementation-report.pdf

OECD (2011), Fighting Bid Rigging in Public Procurement in Mexico: A Secretariat Report on IMSS Procurement Regulations and Practices, http://oecd.org/competition/abuse/49390114.pdf

¹⁸ See the OECD's Public Procurement Toolbox. The Certificate of Independent Bid Determination www.oecd.org/governance/procurement/toolbox/search/ discussed certificate-independent-bid-determination.pdf.

¹⁹ https://cofece.mx/wp-content/uploads/2017/11/RecomendacionesContratacionPublica-v2-2.pdf.

²⁰ Article 29, section VIII of the Mexican Procurement Act.

²¹ See Articles 50 and 60 of the Mexican Procurement Act.

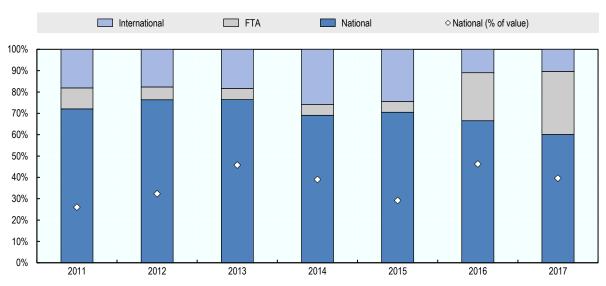
²² See Article 29 of the Mexican Procurement Act.

Annex 6.A. Geographical cover of IMSS procurement procedures

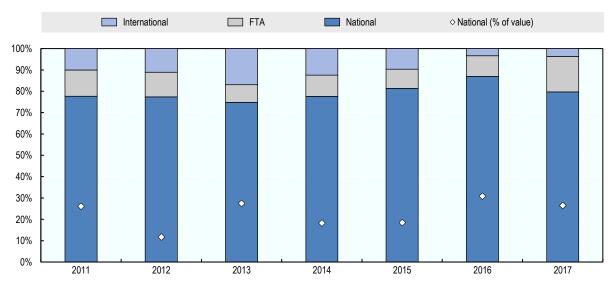
All procurement procedures

Annex Figure 6.A.1. Share of IMSS contracts awarded after national, FTA or international procurement

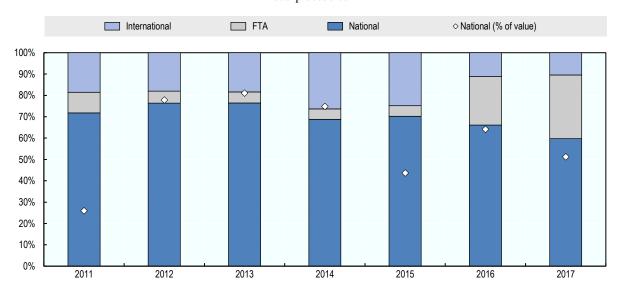




Central procedures



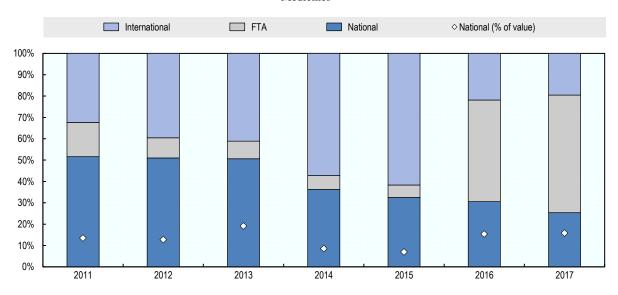
Local procedures



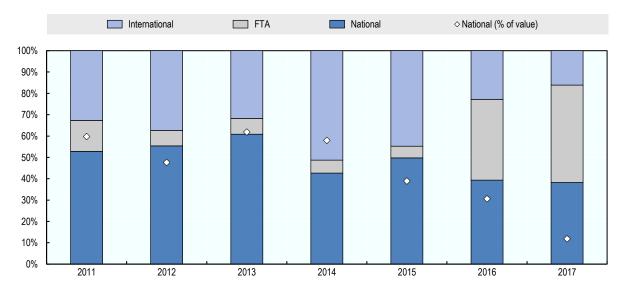
Source: OECD analysis of CompraNet data for IMSS contracts.

Annex Figure 6.A.2. Share of IMSS contracts awarded after national, FTA or international procurement, by product type

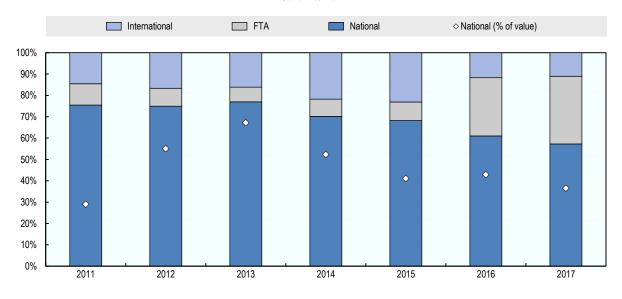
Medicines



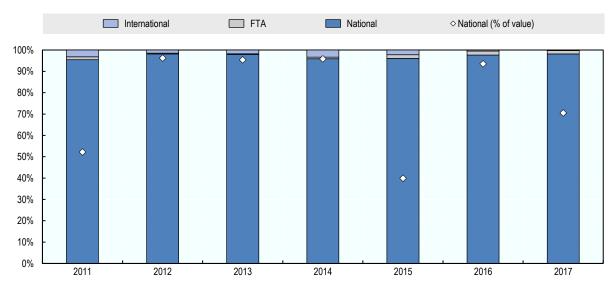
Medical material



Other items



Services



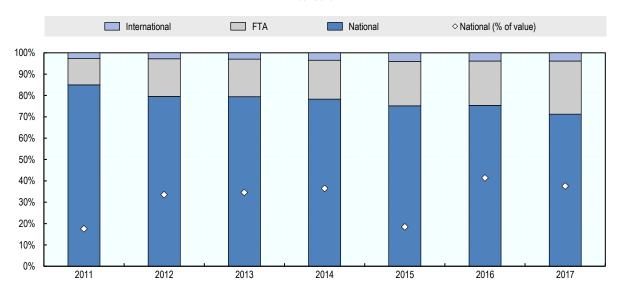
Note: 2014 and 2016 include multi-year contracts for integrated services awarded after FTA public tenders, which can drive down the value share of national procedures.

Source: OECD analysis of CompraNet data for IMSS contracts.

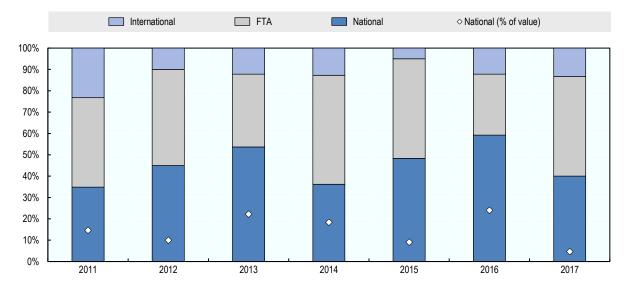
Public tenders only

Annex Figure 6.A.3. Share of IMSS contracts awarded after national, FTA or international public tenders

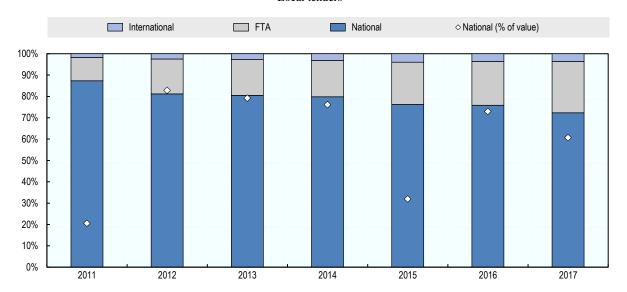
All tenders



Central tenders



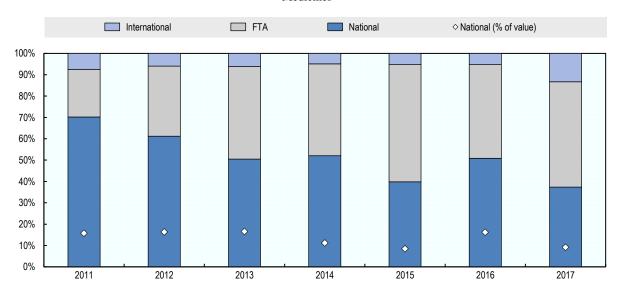
Local tenders



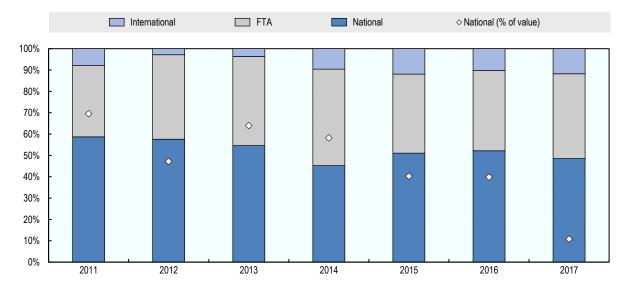
Source: OECD analysis of CompraNet data for IMSS contracts.

Annex Figure 6.A.4. Share of IMSS contracts awarded after national, FTA or international public tenders, by product type

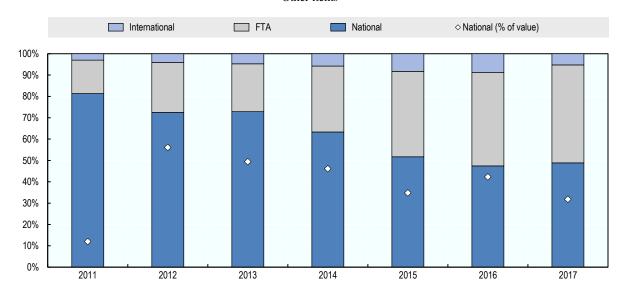
Medicines



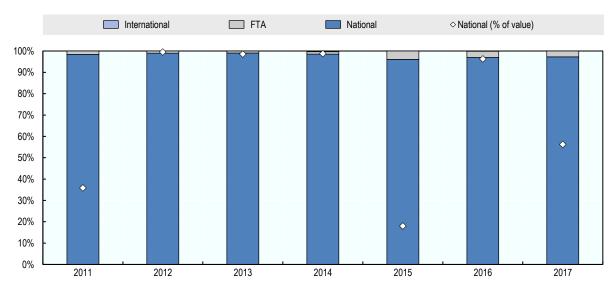
Medical material



Other items



Services



Note: 2014 and 2016 include multi-year contracts for integrated services awarded after FTA public tenders, which can drive the value share of national procedures down.

Source: OECD analysis of CompraNet data for IMSS contracts.

Annex 6.B. Declaration of Integrity and Non-collusion (COFECE, Mexico)

DECLARACIÓN DE INTEGRIDAD Y NO COLUSIÓN

Ciudad de México, a [] de [] de 2016

Autoridad Convocante

Licitación Pública XXX/16

Presente

[Nombre del representante], en representación de [Nombre de la persona física o moral] (en adelante, el **PARTICIPANTE**), presento la **OFERTA**:

Los poderes para representar deben incluir el de firmar esta declaración a nombre de todos los que están representados]:

Para: XXX/16

Convocado por: **XXX** (en adelante, la Convocante)

Vengo a presentar por mí y en representación del PARTICIPANTE, la siguiente Declaración de Integridad y No Colusión (en adelante, la Declaración de Integridad):

- 1. He leído y entiendo los términos de la presente Declaración de Integridad;
- 2. Comprendo que si la Declaración de Integridad no es verídica me expongo a incurrir personalmente y a comprometer la responsabilidad de mi representada en ilícitos de carácter civil, penal y administrativo, y en especial de las penas en que incurre quien declara con falsedad ante autoridad distinta a la judicial, en términos del artículo 247, fracción I, del Código Penal Federal. Lo anterior, sin perjuicio de las sanciones que en términos de las legislaciones aplicables a este procedimiento se contemplan. Asimismo, comprendo que la Propuesta será descalificada si no se ajusta a la presente declaración:
- 3. Conozco la Ley Federal de Competencia Económica, publicada el veintitrés de mayo de dos mil catorce en el Diario Oficial de la Federación y en vigor desde el siete de julio del mismo año, en particular, lo previsto en los artículos 53, 127, fracciones I, IV, X y XI y párrafos cuarto y quinto, así como el artículo 254 bis del Código Penal Federal.
- 4. Cada persona cuya firma aparece en la OFERTA que se presenta ha sido autorizada por el PARTICIPANTE para definir los términos y condiciones de la misma y para formularla en su representación;
- 5. Para los propósitos de la presente Declaración de Integridad y de la **OFERTA** que se presenta, entiendo que la palabra "Competidor" comprenderá cualquier persona física o moral, además del **PARTICIPANTE**, afiliado o no con el mismo que:
 - a. Haya presentado o pueda presentar una **OFERTA** en el presente proceso; y
 - b. Podría potencialmente presentar una **OFERTA** en el mismo proceso.
- 6. El **PARTICIPANTE** declara que [Marque con una X uno de los siguientes cuadros]

- a. [...] Se ha presentado a este proceso de forma independiente, sin mediar consulta, comunicación, acuerdo, arreglo, combinación o convenio con Competidor alguno; o
- b. [...] Sí ha entablado contratos, convenios, arreglos con uno o más competidores respecto de esta convocatoria. En el documento(s) adjunto(s) declara toda la información detallada, incluyendo los nombres de los Competidores y la naturaleza y razones de tales consultas, comunicaciones, acuerdos o convenios;
- 7. En particular, y sin limitar la generalidad de lo señalado en los numerales 6 (a) o 6 (b), no ha habido contratos, convenios, arreglos o combinaciones con Competidor alguno en relación con:
 - a. Precios:
 - b. Métodos, factores o fórmulas empleadas para la determinación de precios;
 - c. La intención o decisión de presentar o no su **OFERTA**; o bien
 - d. La presentación de una propuesta o la OFERTA que no cumple con los requisitos del presente proceso; a excepción de lo expresamente estipulado en el numeral 6 (b) anterior.
- 8. Además, no ha existido consulta, comunicación, acuerdo o convenio con Competidor alguno en cuanto a calidad, cantidad, especificaciones o detalles de envío de los productos o servicios referidos en este proceso, a excepción de lo que expresamente autoriza la Convocante o conforme a los hechos revelados en concordancia con el numeral 6 (b) anterior.
- 9. Los términos de la OFERTA que se presenta no han sido ni serán revelados por el PARTICIPANTE para conocimiento de algún Competidor, en forma directa o indirecta con el objeto o efecto de manipular, fijar o concertar precios; manipular, establecer o concertar métodos, factores o fórmulas empleadas para la determinación de precios; afectar o inducir la intención o decisiónde presentar o no una OFERTA; o bien la presentación de una propuesta u OFERTA que no cumple con las especificaciones del presente proceso.

Además, los términos de la **OFERTA** que se presenta no han sido ni serán revelados por el PARTICIPANTE hasta el ACTO DE FALLO, para conocimiento de algún Competidor, en forma directa o indirecta con el objeto o efecto de manipular, fijar, o concertar la calidad, cantidad, especificaciones o detalles de envío de los productos o servicios referidos en este proceso o conforme a lo expuesto en el numeral 6 (b) anterior.

10. Asimismo, manifiesto que, por mí mismo o a través de interpósita persona, me abstendré de adoptar conductas para que los servidores públicos de la Convocante induzcan o alteren las evaluaciones de la OFERTA, el resultado del procedimiento u otros aspectos que otorguen condiciones más ventajosas con relación a los demás PARTICIPANTES.

Fecha:	
Nombre del representante legal:	
Firma:	

Source: COFECE, Recomendaciones para promover la competencia y libre concurrencia en la contratación pública, https://cofece.mx/wpcontent/uploads/2017/11/RecomendacionesContratacionPublica-v2-2.pdf.

Annex 6.C. Certificate of Independent Bid Determination (Competition Bureau, Canada)

I, the undersigned, in submitting the accompanying bid or tender (hereinafter "bid") to:				
(Corporate Name of Recipient of this Submission)				
for:				
(Name and Number of Bid and Project)				
in response to the call or request (hereinafter "call") for bids made by:				
(Name of Tendering Authority)				
do hereby make the following statements that I certify to be true and complete in every respect:				
I certify, on behalf of:				
that:				
(Corporate Name of Bidder or Tenderer [hereinafter "Bidder"])				

- 1. I have read and I understand the contents of this Certificate;
- 2. I understand that the accompanying bid will be disqualified if this Certificate is found not to be true and complete in every respect;
- 3. I am authorized by the Bidder to sign this Certificate, and to submit the accompanying bid, on behalf of the Bidder;
- 4. each person whose signature appears on the accompanying bid has been authorized by the Bidder to determine the terms of, and to sign, the bid, on behalf of the Bidder;
- 5. for the purposes of this Certificate and the accompanying bid, I understand that the word "competitor" shall include any individual or organization, other than the Bidder, whether or not affiliated with the Bidder, who:
 - a. has been requested to submit a bid in response to this call for bids;
 - b. could potentially submit a bid in response to this call for bids, based on their qualifications, abilities or experience;
- 6. the Bidder discloses that (check one of the following, as applicable):
 - a. the Bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement or arrangement with, any competitor;
 - b. the Bidder has entered into consultations, communications, agreements or arrangements with one or more competitors regarding this call for bids, and the Bidder discloses, in the attached document(s), complete details thereof, including the names of the competitors and the nature of, and reasons for, such consultations, communications, agreements or arrangements;
- 7. in particular, without limiting the generality of paragraphs (6)(a) or (6)(b) above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:

- a. prices;
- b. methods, factors or formulas used to calculate prices;
- c. the intention or decision to submit, or not to submit, a bid; or
- d. the submission of a bid which does not meet the specifications of the call for bids;
- 8. except as specifically disclosed pursuant to paragraph (6)(b) above;
- 9. in addition, there has been no consultation, communication, agreement or arrangement with any competitor regarding the quality, quantity, specifications or delivery particulars of the products or services to which this call for bids relates, except as specifically authorized by the Tendering Authority or as specifically disclosed pursuant to paragraph (6)(b) above;
- 10. the terms of the accompanying bid have not been, and will not be, knowingly disclosed by the Bidder, directly or indirectly, to any competitor, prior to the date and time of the official bid opening, or of the awarding of the contract, whichever comes first, unless otherwise required by law or as specifically disclosed pursuant to paragraph (6)(b) above.

(Printed Name and Signature of Authorized Agent of Bidder)		
(Position Title)	(Date)	

Source: Competition Bureau of Canada, Certificate of Independent Bid Determination, http://competitionbureau.gc.ca/eic/site/cbbc.nsf/vwapj/certificate_bid_e.pdf/\$file/certificate_bid_e.pdf.

7. Overhaul of market research

IMSS uses information collected during its market research to decide a wide range of important elements of its tender design, such as the tender procedure (open tender or otherwise); tender format (for example, use of an auction); the tender's geographical coverage (national or international); reference price; and whether goods or services should be grouped into a single lot. IMSS has taken significant steps to strengthen its market-research capabilities, particularly at the central-procurement level. IMSS can further enhance these functions by using more reliable sources of information and actively monitoring post-award contract execution and performance. In line with glocal good practices, IMSS should also try to minimise the amount of information made publicly available on bidders and their offers, as well as other sensitive information on competitors. It should also carefully consider the time at which such information is released. More generally, IMSS would benefit from a more strategic approach to tender design to minimise the risk of bid rigging.

7.1. Time and resources allocated to market research

The importance of IMSS conducting thorough and correct market research is evident in the ways it is used as an input in tender design. In particular, IMSS (similar to other public procurers) uses information collected during market research to inform:¹

- the decision as to whether goods or services should be grouped in a single lot;
- the determination of prices (such as the non-acceptable or maximum reference prices);²
- the choice of the tender procedure open tender; invitation to at least three suppliers; a direct award – or tender format, i.e. use or not of reverse auctions;
- the tender's geographical coverage, i.e. whether to organise a national tender or an international open tender.

The decision on all those crucial characteristics of the tender process rests with the marketresearch team, and is based on the results of the research it conducts for each of the tenders.

In the period since 2011, IMSS has taken significant steps to strengthen its market-research capabilities, particularly at the central procurement level. In addition, the central IMSS market-research team is currently working on addressing a number of the pending issues or aspects of the 2011 OECD recommendations.³

7.1.1. Prominence and independence of the central market-research unit

IMSS has been looking at market conditions by doing market research to different degrees since 2001, both with an in-house "pricing team" and external consultants.

The strength and depth of the IMSS market-research team mirrored – to a large extent – the evolution of centralised and consolidated procurement. More structured market research has been conducted for central procurement since 2008, when IMSS started centralising procurement. From 2012 onwards, in anticipation of more extensive consolidated procurement introduced the following year, market research became more institutionalised, moving from ad hoc work to systemic research undertaken by a specialised unit. Finally, market research was split from contracting and in June 2016, this new team began reporting directly to the Procurement and Infrastructure Unit (as seen in Figure 7.1).

As a result of these changes, the central market-research team, currently 27 strong, is now completely autonomous and carries out market research for all consolidated and central tenders. In the past year, members of the team attended the National Institute of Public Administration (Instituto Nacional de Administración Pública, INAP) for a course entitled Public Sector Acquisitions, Leases and Services for Managerial Level (Curso en Materia de Adquisiciones, Arrendamientos y Servicios del Sector Público para Nivel Gerencial en Modalidad Presencial), which among other topics, covered market research for public procurement. The team also attended on-site training courses at SFP about conducting market research and sharing best practice among public bodies.

Market research is now embedded in IMSS procurement processes, at least for consolidated and central tenders (see Box 3.2). The fact that the procurement cycle has been standardised and is relatively stable means that there is sufficient time for market research to be carried out.

The independence granted to the market-research team and the importance given to enhancing its capabilities and allowing the process to yield the required results is an extremely welcome development, and in line with the 2011 OECD recommendations.

It is noted that in the context of local tenders (at delegation and UMAE level) market studies are compiled by acquisition-administration teams. Responses to the OECD's questionnaire suggest significant variability between delegations and UMAEs in how their market research is organised and who conducts it, from having an autonomous unit to sharing the responsibility among all members of requesting and procurement areas.⁴ It is important to note that there is no apparent correlation between a delegation or UMAE's size and the way market studies are carried out. The IMSS Policies and Guidelines on Procurement, Rents and Services (Políticas Bases o Lineamientos en Materia de Adquisiciones Arrendamientos y Servicios, POBALINES) do not specify who has the responsibility to carry out the market studies, as long as it is conducted by a member of the requesting or procurement units.⁵

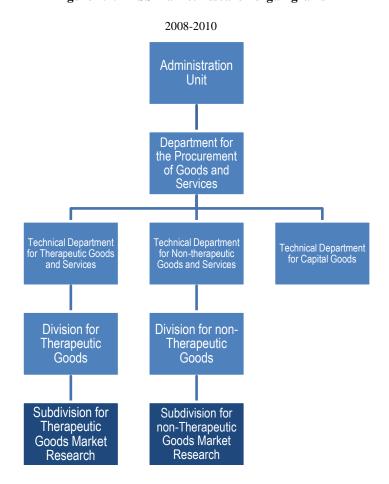
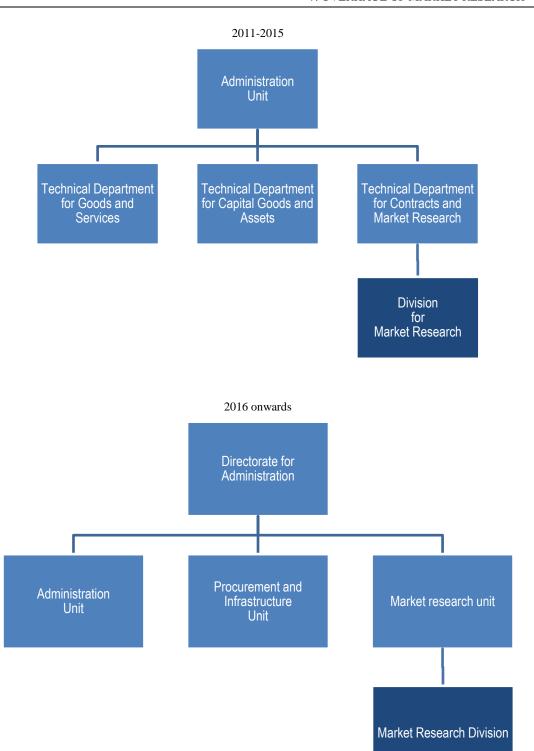


Figure 7.1. IMSS market-research organigrams



Source: IMSS and IMSS (2017), Manual de organización de la dirección de administración (Organisation of the Administration Directorate Manual).

7.1.2. Content and sources

The regulations to the Procurement Act (RLAASSP)⁶ set out the minimum number of sources that officials should use during their market research. These are:

- 1. Information held on CompraNet;
- 2. Information from market participants (trade associations, chambers of commerce, suppliers, manufacturers, distributors, wholesalers);
- 3. Information from direct research (Internet, telephone or other channels).

Market studies conducted by IMSS consistently use these sources. Improvements could be made, however, to those sources and the quality of the information actually obtained. Potential additional sources should also be identified.

Firstly, as discussed further in Section 8.2, data on past tenders may not be complete enough to adequately inform the market research IMSS conducts. For example, the data held on CompraNet does not include all past tenders and contracts. Moreover, the formats in which the data are held (much is in non-editable formats) do not allow for easy access and searchability. Much richer tender (rather than contract) data that included information such as all past bids, participants and specifications would prove more useful in creating comprehensive market studies.

The IMSS central market-research team has built and maintains a comprehensive database that includes lists of suppliers of all products procured by IMSS. It uses these data to filter the contents depending on the product to be purchased and make the necessary enquiries and invitations for quotes. This supplier database is an extremely useful tool And IMSS should ensure that it remaines up to date, both by including new entrants (based on tender participation and proactive market monitoring) and by validating existing entries (to minimise the risk of quotes from "ghost" or inactive suppliers). The market-research team should therefore correlate the quotes it receives with subsequent bids to ensure the credibility of information it gathers from each supplier. This will also help in the assessment of suppliers submitting potentially untruthful or strategic quotes (see Section 7.3 below).

In order to improve the quality of the information it collects, and eventually the design of tenders, market research may also benefit from using additional sources, such as:

- **Tenders by other public bodies** for the same products, including information on characteristics (tender procedure, format, cover) and outcome (participation, offers, winning price, other terms). IMSS is considering this additional source of data even if the volumes involved in IMSS procurement are significantly higher, which can reduce the usefulness of comparisons to other bodies' purchasing.
- **International comparisons** for procurement of the same or equivalent products, which, even if market conditions can differ, can sometimes be an appropriate benchmark. IMSS confirmed it is exploring international references, such as, for example, purchases by the Panamerican Health Organization (PAHO).⁷
- **Contract execution** information (rather than tender outcomes), such as supply shortages, contract modifications and emergency purchases, can be valuable in the design and specifications of calls for tenders. Both data (if recorded) and feedback from requesting areas can be useful in this exercise (see discussion on ex post assessments in Section 7.1.4). On occasion, the market-research unit has requested such information. For example, in 2016, feedback was requested from the relevant

technical area (Coordinación Técnica) regarding the quality, performance and incidents of warranty use for medical equipment purchased in previous years. These data were then used to weigh quotes received from each manufacturer and country of origin in calculating reference prices. Gathering such additional relevant information is highly recommended and should be extended to as many procedures as possible.

Local conditions of supply and demand may be relevant; this may include the geographical location and proximity to sources of supply or particular characteristics in terms of the pattern of consumption. These should be borne out in the market study and inform the tender design, including the make-up of lots, awarding contracts for geographical zones, or even taking certain products or delegations out of centralised procurement to encourage more aggressive bidding and better pricing. This is confirmed by the case studies considered in Part III of this report. For example, Baja California is located next to the United States, so it may be able to source certain medicines (such as immunoglobin) at lower prices from across the border. This approach is already implemented – to an extent – by IMSS and a methodology is also being designed that will flag cases where local purchasing returns better terms than central procurement.

It is good practice that any proposed additional sources used and any extension to the contents of the market study (beyond what is in the RLAASSP) be documented. The POBALINES or other internal guidelines can be used to reflect those alternative sources, so that these initiatives are institutionalised and are not dependent on the official in charge. Similarly, the OECD repeats its 2011 recommendation that market studies use a minimumcontent checklist. It is important that this standardisation also applies (appropriately adapted, if required) to tenders run by delegations and UMAEs. The responses from delegations and UMAEs to the OECD questionnaire suggest – again – some divergence in the sources used, as seen in Table 7.1.

Table 7.1. Sources used by IMSS delegations and UMAES in conducting market research

	CompraNet	Chambers of commerce	Intranet and/or phone	Internet	Field work	Historical data	External sources (providers)
Delegations (16)	15	7	4	4	1	8	10
UMAEs (13)	10	3	2	2	1	8	7

Source: Responses by IMSS delegations and UMAEs to OECD questionnaire.

In light of the more limited resources and less-experienced and well-trained officials dedicated to market research at delegation and UMAE level, the central team should provide support and advice (see also Section 9.1.1). On top of direct contacts, resources compiled by the central market-research unit at IMSS and the background data used should be made available to local teams. The registry of suppliers used to invite tender offers, for example, can be made available to all officials tasked with conducting market research, as could studies documenting offers received for each centrally procured product. A previous version of the POBALINES did in fact stipulate that such sharing of information should be done, but this has not been put into practice.8

Finally, centralising all market research (even for tenders run locally) could be trialled for tenders above a certain threshold. In this way, delegations and UMAEs could benefit from a market study put together by a competent unit fully independent of their own procurement teams, while IMSS, as an organisation, could realise further economies of scope in its market-research functions.

7.1.3. Liaising with external bodies

As discussed in Section 4.1, IMSS has been engaged in discussions with SFP – the supervisory body that collects other procuring agencies' experiences and best practices – regarding certain aspects of the methodologies and processes used at the market-research stage.⁹ These discussions are led by the market-research team and are based on its experience of past tenders. The OECD commends the opening of this communication channel with SFP. IMSS should continue to liaise proactively with SFP to instigate changes to its procedures, but also to provide input to possible amendments to the legal and regulatory framework. The information collected at the market-research stage is critical for such efforts.

IMSS should also strengthen its ties with COFECE, which can provide valuable guidance and resources at the market-investigation stage. This may include informal discussions on the bidding behaviour or outcomes of previous tenders, and tender design, as well as formal co-operation based upon COFECE investigations. There should be an appropriate channel and procedure through which the findings of past COFECE investigations relating to IMSS procurements are communicated directly to IMSS and then fed into its market investigations (ensuring, for instance, that past prices under consideration do not include any that were later deemed to have been affected by collusive agreements).

Similarly, the OECD recommends that the central market-research unit monitors developments on the market's supply side, in particular, for matters such as patent expirations and litigation. Through contacts with COFEPRIS, for example, IMSS could lay the groundwork for expediting the registration of generics wishing to enter the Mexican market, plan its procurement accordingly, and ensure participation of new entrants in its tenders. 10 Similarly, in co-operation with other members of CCNPMIS, IMSS should monitor the entry of additional suppliers in the case of single-source products.

The OECD also notes IMSS's use of external consultants at the market-research stage. External consultants do not perform market research for IMSS, but advise on and support IMSS in the design of the auctions it carries out, and on the products and services that should be included in each auction (as well as the composition of lots), based on market information collected.

7.1.4. Monitoring and ex post assessment

Until recently, research for the purposes of understanding the market and designing appropriate tenders relied on historical contract data and other collected information, such as potential offers, suppliers and prices.

The OECD recommends that, on top of tender outcomes, market research should also incorporate information on contract performance and implementation. The central marketresearch team at IMSS is beginning to introduce elements of ex post assessment of tender outcomes into its analysis, such as the example cited above of the performance of various brands of medical equipment in 2016. This should be made more systematic, as would happen if the OECD recommendations regarding the recording and organisation of tender data in a database (see Section 8.2) were followed. The market-research team should be granted full access to this database so it can extract the relevant data that can inform its market mapping and the tender design.

A number of ex post variables related to contract performance, beyond tender outcomes, are relevant in this respect. These include:

Product and service quality and performance, including selective (partial) fulfilment of a contract. Information on the (therapeutic) value of medicines, quality of medical materials, performance of medical equipment, and quality of services are all relevant to market research. First, this information is valuable for the specifications set in subsequent tenders, although responsibility for that largely sits with the requesting technical area. Second, it can be used to qualify the quotes received during the market-study stage, depending on the supplier submitting them. Information on quality and performance may be based both on quantitative data (for example, number of clinical tests performed) and on qualitative information and assessments (for example, the outcome of controls by COCTI).

Contract modifications. Changes to contract terms often occur post-award. These typically involve a change in the brands of product initially offered. IMSS estimates that in approximately 800 contracts in 2016, there were 400 modifications, around 370 of which related to adding alternative product providers or brands. While this may be sometimes unavoidable (for example, because of changes at the manufacturing level that affect a wholesaler or distributor's ability to source the products initially offered) flagging repeated and widespread use of such amendments would also be a useful input at the tender-design stage.

Contract implementation or breaches/termination. Information on contract performance and problems¹¹ is relevant in the design of future tenders (for example, deciding on multi-sourcing or breaking the requirements in geographically based lots).

More generally, improvements in the wealth and quality of the data maintained by IMSS (as discussed in Section 8.2) will allow the market-research team to improve the information they use, as well as achieving other equally important objectives. These include:

- better planning within the framework of the consolidated/central procurement cycle, so as to further decrease the number of top-up tenders conducted at decentralised level;
- better visibility of tenders declared void, unfulfilled contracts or final price offers unaligned with quotes received at the market-study stage will minimise instances where less competitive procedures are used (such as organising national tenders where FTA or international tenders would be more appropriate or the need to resort to direct awards or decentralised tenders in the case of unsuccessful central tenders);
- better dissemination of information about IMSS requirements to allow more suppliers to anticipate and participate in tenders;
- better understanding of bidders' behaviour through information such as patterns of participation, portfolios of brands in each offer, price bids, and effective discounts. Coupled with appropriate training on detecting bid-rigging, this will also allow IMSS to flag potentially suspicious behaviour early and bring it to COFECE's attention.

7.2. Non-disclosure of information contained in market studies to bidders

In 2011, the OECD recommended that the results of IMSS market studies should not be disclosed to bidders. IMSS's approach to the disclosure of information to bidders is, however, governed by the requirements of the RLAASSP and Mexican transparency laws. The former stipulate that, in certain cases, the reference prices calculated after the market investigation form part of the calls for tenders. 12 The latter mandates that, for reasons of transparency, scrutiny and accountability, certain information needs to be disclosed, although there are limitations on the timing of disclosure.¹³

There is a trade-off to be made between requiring too much transparency and the possible negative effects on competition in tenders, given that market transparency is a facilitating factor for collusion. While remaining within these relevant regulatory frameworks IMSS should continue to ensure that no information is unnecessarily shared with tender participants. It should also consider when transparency is appropriate, i.e. when information can be shared that could then be used to facilitate the formation, monitoring and continuation of bid-rigging schemes.

Details on market-research results. Exemptions in Mexican transparency laws allow IMSS not to publish the outcome of its market studies before a tender. Participants in IMSS tenders may request the results of the market research, but this is only shared after the final decision on the contract award. 14 Details about quotes received, the identity of interested bidders, and the rationale for tender design are not shared until after the tender process has ended. This is good practice, in line with the OECD recommendations, and limits the potential for sensitive and relevant information to be shared among suppliers (and potential bid riggers).

Methodology for calculating maximum reference prices. The central market-research team at IMSS produces a publicly available document setting out the methodology it uses to calculate maximum reference prices (and year-on-year increases). The OECD recommends that this methodology is only used internally and not communicated. To the extent that there are inputs to this methodology that bidders may have control over, it may induce strategic quoting on their part. IMSS has confirmed that this methodology note will not be published going forward.

Reference prices. In standard tender procedures (i.e. not auctions) for which the binary criterion is used, the winner is decided on the basis of the lowest bid. Bids are presented as a discount to MRP, which is essentially a reserve price, (i.e. the maximum price that the contracting authority is willing to pay). The MRP is calculated on the basis of information gathered during the market study. 15 In general, the RLAASSP give contracting authorities discretion as to whether they disclose the MRP in the call for tenders. ¹⁶ Given the nature of this tender system, the MRP has to be disclosed to the bidders before the tender.

The OECD recommends that alternative (not binary) evaluation criteria are more frequently used (see Section 7.3) for which MRPs need not be disclosed. IMSS should also ensure that MRPs are not disclosed to any potential tender participants as this would possibly provide a focal point that might reduce the competitive tension between bidders.

MRPs cannot be used for (reverse) auctions.¹⁷ Instead, the offers received and their ranking are published 24 hours before the final round of bidding. It is recommended that IMSS consider alternative scenarios, in co-operation with SFP and possible amendments to procurement regulations, so that this information is announced closer to the start of the final bidding round. Doing so decreases the likelihood of collusive agreements being reached beforehand. For example, CFE, which is not bound by the same regulations, reveals the starting price for reverse auctions as little as one minute before bidding starts.

Detailed information on bidders and bids. Pursuant to the provisions of the LAASSP, information on all received bids is made public after the contracts are awarded, which has the potential to help members of a bid-rigging scheme monitor bidding behaviour. However, the OECD recognises that other public policy objectives (including accountability of public officials, transparency regarding allocation of public bodies' budgets, fighting corruption, as well as participants' rights to appeal decisions by contracting authorities) are also an important factor in deciding whether information is disclosed post-event.

7.3. Other issues relating to tender design

The OECD has a number of recommendations for IMSS that go beyond the assessment of the implementation of the 2011 recommendations.

IMSS's tender-design choices are informed by the results of previous tenders and the outcome of its market research. On the basis of this information, IMSS decides if it should

- 1) use an auction; 2) run a tender at local (i.e. delegation or UMAE) level or at central level;
- 3) procure jointly with other public bodies; 4) split the contract into lots and if so, how;
- 5) tender multi-year contracts; 6) or bundle products together in a single lot.

During the course of the present review, the OECD detected a number of aspects of tender design and the way that market research is conducted that may be conducive to bid rigging. These were mostly relevant to central and consolidated tenders.

IMSS has recognised that its tender design has a direct effect on the level and intensity of competition and, consequently, on the prices and other terms it secures for its procurement. Over the past few years, this has been reflected in a number of the tender designs created by IMSS.

In 2014, for instance, IMSS decided to limit the number of brands that a distributor could offer in a tender. This was aimed at preventing large distributors from making tender offers that exclusively "locked in" all or the most relevant brands, so that other distributors had no access to these brands and so could not participate in tenders (see Figure 3.10 and Figure 3.11). In the case of integrated services, IMSS decided to divide the service of clinical tests into two lots: one for common tests (such as pregnancy, glucose or cholesterol tests) and another for more complex tests. This was aimed at introducing more competition for the former by opening up the tender to providers previously locked out by being unable to provide both simple and more complex tests.

These strategic decisions on tender design were taken with the view to making procurement procedures more competitive by maximising participation. The OECD strongly recommends that such efforts continue and intensify because:

- 1. The initiatives will increase participation in tenders, reduce the risk of bid rigging and so increase chances of achieving better outcomes.
- 2. They signal to market participants that IMSS is proactively pursuing alternative forms of procurement and monitoring bidding behaviour and tender outcomes.
- 3. They introduce desirable variability in IMSS procurement processes, a useful tool in disrupting collusive practices (see Section 6.3 above).

7.3.1. Strategic quoting at the market-research stage

IMSS relies in part on market participants to build a good knowledge of supply conditions. During the market-research stage, it solicits non-binding quotes from suppliers on available products, capacities and prevailing prices. Suppliers that submit quotes are under no obligation to bid or, should they bid, to offer the same terms as indicated in their quotes; i.e. quotes are purely indicative market-research facilitators. The asymmetry in market knowledge between IMSS and potential bidders means relying heavily on information provided by potential suppliers. This carries the risk that IMSS's understanding of the market is biased because suppliers have an incentive to behave strategically at this stage of the procurement process.

Mexican suppliers, for example, may submit low price quotes or indicate that more national suppliers exists than it the case, so that IMSS takes the decision to organise a national tender. This could have the effect of limiting the number of competitors, dampening competition at the bidding stage, and resulting in higher winning prices.¹⁸ Conversely, as suppliers have some visibility as to how prices are calculated, quotes can be used strategically to influence the different prices (convenient, non-acceptable and reference) that IMSS sets for each tender. Potential manipulation or co-ordination of quotes submitted during the market research preceding a tender is not specific to IMSS. COFECE, for example, recently announced fines to media-monitoring companies for similar infringements.

Box 7.1. COFECE investigation into manipulation of quotes in market research

COFECE fines companies and individuals for collusion in public procurement processes in the market for media-monitoring services

On 30 January 2018, COFECE announced that it had imposed fines of over MXN 7 million on three companies and several individuals for rigging public-procurement procedures of media-monitoring services for a number of public bodies for the period 2012-2016.

COFECE found that the companies agreed to manipulate the price quotes they submitted during the market-research stage. It also found that they co-ordinated their bids and abstained from bidding in the context of invitations organised by the procurement agencies that were for no fewer than three suppliers. This conduct benefitted one company that was awarded contracts for media-monitoring services, while other participating companies were rewarded for their participation in the scheme either through a subcontract or the subsequent assignment of a related service.

COFECE estimated that the collusion resulted in an average overcharge of 14.5%, which translates to damages of over MXN 3 million.

COFECE press release COFECE-05-2018. Source: www.cofece.mx/wpcontent/uploads/2018/02/COFECE-05-2018-COFECE.pdf.

IMSS should be aware of so-called adverse selection in the context of its market research, and factor this into its assessment. For example, it should use its acquired knowledge and experience of the health-supplies market to identify credible, "approved" suppliers eligible to participate, seek quotes from them and then attach more weight to their quotes. IMSS should also use previous market studies and corresponding past tenders to compare quotes given at the market-research stage and subsequent actual bids. In particular, discrepancies between suppliers' identities and their quotes at the market-research stage (as an implicit expression of interest in participating in the tender) and those then submitting credible bids may either signal instances of attempts to influence the tender design or collusive agreements that led to withdrawals from the tender process.

During discussions between the OECD and the IMSS market-research unit, it emerged that IMSS is aware of certain potentially untruthful quotes. To combat this, in particular, suppliers submitting low quotes, IMSS is considering: 1) changing the methodology for the determination of tenders organised at national level; and 2) not using all the national reserve allowed by the FTAs that Mexico has signed to reduce the number of national-only tenders.

7.3.2. Strategic design of tenders by IMSS

Further to the discussion in Sections 3.3, 3.4 and 5.1, the OECD recommends that IMSS take a more proactive and strategic approach to its tender design, in order to increase participation and disrupt instances of potential bid rigging. More specifically, IMSS should re-examine the use of lots in its tender processes, and consider regional tender procedures.

Use of lots. IMSS relies on the results of its market research to decide on lots in its calls for tender. In particular, if five or more potential suppliers ascertain that they can provide certain products, IMSS may bundle them together in a single tender lot. In doing so, IMSS was hoping to gain in process efficiencies and benefit from the passing on of savings that suppliers would achieve due to scale economies.

There is a trade-off between competition (as measured by participation in tenders) and the potential for savings arising from economies of scale. IMSS's experience has revealed that the (negative) effect on participation has been greater: the fact that once products are bundled together in a single lot, no supplier can bid for them separately results in potential bidders being ruled out. Moreover, the larger discounts that IMSS hoped it would achieve by bundling products together into lots have not been observed in practice. IMSS estimates that the average discounts offered by larger wholesalers and distributors when bidding for lots instead of individual products were less than 7%.

IMSS should rethink the rationale and its approach to using lots in procurement. First, it should adopt a more strategic view of the use of lots. It should be more proactive in deciding its use of lots, rather than relying on information provided by suppliers during the market study. The number of offers that remain unfulfilled makes this important; for example, Table 7.2 shows offers eventually received for lots containing multiple products in the 2016 consolidated tender exercise. Given that IMSS combines products in lots only when five or more suppliers submit a quote for them during the market-research stage, it would normally expect at least five offers at the bid stage for those lots. However, fewer offers are often observed in practice.

Offers	Frequency	Volume (%)	Value (%)
7	14%	4%	12%
6	9%	15%	7%
5	5%	30%	34%
4	14%	3%	8%
3	5%	8%	9%
2	18%	4%	5%
1	23%	5%	19%

Table 7.2. Offers received for lots containing multiple products, 2016-2017 consolidated tenders

Note: Volume is maximum quantity indicated for consolidated purchases. Value is calculated on the basis of maximum quantity and the MRP.

31%

5%

Source: OECD analysis of records for 2016-2017 consolidated tenders published on CompraNet.

14%

Second, as discussed in Section 5.1.2, the use of lots can achieve other objectives. IMSS can use them to introduce a level of aggregation that is lower than central or consolidated tenders (by using geographical zoning in lot design) or introduce an additional layer of unpredictability in tenders (by varying the lots that are put out to tender). Lots can also be used when IMSS believes there is potential for economies of scope, rather than scale, by grouping the supply of goods or services together. IMSS can draw upon its successful use of lots in certain types of tenders to inform its future decisions; for example, the grouping of delegations into lots when tendering for integrated services.

Finally, in light of the tension between potential savings from economies of scale on the part of suppliers and restrictions on the pool of potential bidders for a lot, IMSS should engage in discussions with SFP on possible amendments to the LAASSP and RLAASSP to allow so-called "cherry-picking". For example, PEMEX, which is not subject to the same procurement laws and regulations as IMSS, accepts offers both for lots and their constituent parts, whichever delivers the best outcome.

Regional tenders. In its 2011 review, the OECD recommended IMSS adopt a policy of regional consolidation for some purchases. Until recently, this had not been put in place by IMSS (with the exception of the occasional use of lots corresponding to geographical zones). IMSS had explored the possibility of organising regional tenders on four occasions in the past; however, it had concluded that supply was not sufficient to cover the pooled regional requirements, based on the results of the market investigation.¹⁹

In 2017, IMSS designed regional tenders for the procurement of security services. It estimates that it realised savings of MXN 189 million as a result of this tender. In addition, in 2018, IMSS contemplated whether a tender for the purchase of hospital beds should be organised at a national or regional level. Market research concluded that regional tenders were likely to result in higher participation by smaller regional suppliers (that would be unable to satisfy nation-wide requirements), so a scenario for eight regional tenders was selected.

IMSS should encourage delegations to explore the option of conducting regional procurement more often for the procurement of both goods and services. In doing so, IMSS can pool requirements and exercise buyer power in cases where it is not feasible to run centralised or consolidated tenders due to, for example, local characteristics, tastes (say,

catering services) or seasonal requirements affecting procurement cycles differently in various regions.

Tenders at that level are likely to have a dual positive effect on bidder participation: volumes involved are higher than those for local tenders (so more attractive to larger suppliers), but lower than central and consolidated tenders (so smaller suppliers can credibly bid for the contract independently). IMSS will thus achieve the aim of creating incentives for more aggressive bidding (and so deter collusion), while ensuring that participation is not hindered by high volume requirements. It may also encourage new entry on the supply side or the formation of strong regional players with the potential for further growth, which may later also participate in larger, centrally run tenders.

Regional tenders can be co-ordinated and supported by the central procurement teams, which have greater organisational resources and better infrastructure compared to delegations and UMAEs.

7.4. Recommendations for action

- IMSS should use sources other than those listed in the Procurement Act for its market research. These could be tenders run by other public bodies, international comparisons, contract execution data, and information on local conditions of supply and demand. It is good practice that any additional sources be documented in IMSS's procurement guidelines.
- IMSS's market-research unit should monitor developments on the supply side of the market, in particular, for matters such as patent expirations and litigation and the entry of additional suppliers in the case of single-source products.
- Market research should also incorporate information on contract performance and implementation, such as product and service quality and performance, contract modifications, and contract implementation.
- IMSS's market-research team should correlate the quotes it receives with subsequent bids to ensure the credibility of information it gathers from each supplier in subsequent procedures.
- IMSS's market research should use a minimum-content checklist, including for those tenders run by delegations and UMAEs.
- IMSS's central team should provide support and advice to delegations and UMAEs, including resources and data compiled by the central unit.
- IMSS could trial centralised market research for tenders run locally and for tenders above a certain threshold, so that delegations and UMAEs could benefit from market research done by a competent independent unit.
- IMSS should continue to liaise proactively with SFP to instigate changes to its procedures and to provide input to possible amendments to the legal and regulatory framework. The information collected at the market-research stages is critical for such efforts.
- IMSS should strengthen its ties with COFECE to include informal discussions on the bidding behaviour or outcomes of past tenders and tender design, and formal co-operation in COFECE investigations.

- The methodology that IMSS's central market-research unit is using to calculate maximum reference prices should not be made public.
- IMSS should make more frequent use of evaluation criteria other than the binary (lowest price) criterion. In such cases, IMSS should ensure that maximum reference prices are not disclosed to any potential tender participants.
- In the case of (reverse) auctions, IMSS should consider releasing information such as the starting price or the ranking of the offers received as close as possible to the final bidding round.
- IMSS should be more proactive and strategic in deciding its use of lots, rather than solely relying on information provided by suppliers during the market study. IMSS should also engage in discussions with SFP on possible amendments to the Procurement Act to allow suppliers to "cherry-pick" between lots and their constituent parts.
- IMSS should encourage delegations to explore conducting regional procurement more often for the procurement of both goods and services.

Notes

- ² A non-acceptable price is an upper bound above which no bid is accepted; and it is calculated either as 1.1 times the median of all prices collected in the market study or the average of the technically acceptable bids submitted in response to the call for tenders. A convenient price is the lower bound below which no bid is accepted; it is calculated as the average of the technically acceptable bids submitted in the tender procedure less a discount determined by each individual public agency in its procurement guidelines (no more than 40%, which is the threshold IMSS currently uses). A maximum reference price is essentially a reserve price, i.e. the maximum that the authority is willing to pay; it is derived from the information gathered during the market study. Maximum reference prices may not be used in reverse auctions. In evaluating bids, goods produced in Mexico (at least 50% of Mexican origin) are granted a margin of preference of up to 15% over imported goods.
- ³ For example, the discussion of the need for an ex post assessment of tender outcomes; the benefits of grouping products together in lots; and the publication of the reference price or lowest bid after the first stage of the reverse auctions.
- ⁴ One delegation (Mexico Norte) has an autonomous unit within its procurement area, separated so that market research is done independently. Three delegations (Distrito Federal Sur, Chihuahua, Hidalgo) have members of staff from the procurement unit, whose sole responsibility is to carry out market research. The procurement unit may conduct market studies in 11 delegations (Mexico Oriente, Aguascalientes, Guanajuato, Morelos, Nayarit, Oaxaca, Puebla, Querétaro, Q. Roo, Yucatán and Zacatecas); in some, designated officials carry out research, as well as other functions (e.g. in Morelos), while in others, the entire unit may be involved (e.g. Nayarit). In 14 delegations (Mexico Poniente, Baja California Sur, Baja California, Campeche, Coahuila, Colima, Durango, Guerrero, Michoacán, San Luis Potosi, Sonora, Tamaulipas, Veracruz Norte and Veracruz Sur), market research is the responsibility of either the requesting or procurement units.
- ⁵ See section 5.2.1 of the POBALINES, which state that: "In Delegations and UMAEs, the Contracting Unit together with the Requesting Unit, each in its field, prior to the start of the contracting procedures, must conduct market research, from which they can purchase their goods, lease or services" ("En Delegación y UMAE, el Área Contratante conjuntamente con el Área Requirente, cada una en su ámbito de su competencia, previo al inicio de los procedimientos de contratación, deberán realizar una investigación de mercado, de la cual se desprendan las condiciones que imperan en el mismo, respecto del bien, arrendamiento o servicio objeto de la contratación".)
- ⁶ Article 28 of the RLAASSP.
- ⁷ IMSS is also considering joining forces with PAHO for some purchases to increase further its purchasing power, and also to use its affiliation with PAHO as leverage (threat of an outside option) in negotiations with suppliers. For example, in the case of on-patent products or vaccines that are supplied to PAHO at a lower price than to IMSS.
- ⁸ The current version of the POBALINES does not include such a provision. Earlier versions (for example, October 2015) stated that: "CABCS, through the Market Research Division, will publish on the Institutional intranet page information so that the Contracting and Requesting Areas at the delegation and UMAE levels have elements that contribute to the elaboration of their Market Research" ("La CABCS a través de la División de Investigación de Mercados, publicará en la página de la intranet Institucional, información para que las Áreas Contratante y Requirente a nivel delegacional y de UMAE, cuenten con elementos que coadyuven a la elaboración de sus Investigaciones de Mercados"). IMSS has confirmed that this had not been implemented in practice.

¹ Article 29 of RLAASSP.

- ⁹ For example, IMSS is proposing the use of maximum reference prices in auctions, which is currently not permitted by the Procurement Act. In IMSS's view, doing so would allow it to use the maximum reference price as a ceiling as opposed to abandoning the auction process if the resulting price is too high (given that most products are medicines, which IMSS requires).. IMSS is also proposing a change in the requirement to publish the starting (minimum) bid 24 hours before reverse auctions commence, which (in IMSS's view has the potential to facilitate collusive agreements).
- ¹⁰ Collaboration with COFEPRIS will also help IMSS to confirm the validity of the sanitary authorisation (registro sanitario) of products presented by bidders.
- ¹¹ In the context of each tender exercise, the contracts between IMSS and each supplier cover all products and services won by the supplier. Consequently, only the whole contract can be rescinded, which is rarely done in practice as it is extremely disruptive to IMSS supplies.
- ¹² See Article 39 and Article 51 of the RLAASSP, which state that the "call for tenders and, if required the proposal, shall contain [...] if applicable, the Maximum Reference Price, from which, without exception, bidders should offer a discount that will then be evaluated" ("[1]a convocatoria a la licitación pública y, cuando proceda, el Proyecto de convocatoria deberán contener [...] [e]n su caso, el precio máximo de referencia a partir del cual, sin excepción, los licitantes ofrezcan porcentajes de descuento como parte de su proposición, mismos que serán objeto de evaluación") and "non-acceptable and convenient prices are only calculated when the binary evaluation criterion is used and according to the following criteria: A) the calculation for non-acceptable prices will be carried out only when it is required to prove that a price offered is unacceptable for the purpose of awarding the contract. [...] [and] B) the calculation of the convenient price will only be carried out when it is required to prove that a price offered is discarded because it is below a pre-determined price" ("[e]l cálculo de los precios no aceptables y los precios convenientes, sólo se realizará cuando se utilice el criterio de evaluación binario y al efecto se atenderá lo siguiente: A. El cálculo de los precios no aceptables se llevará a cabo únicamente cuando se requiera acreditar que un precio ofertado es inaceptable para efectos de adjudicación del contrato. [...] [v] B. El cálculo del precio conveniente únicamente se llevará a cabo cuando se requiera acreditar que un precio ofertado se desecha porque se encuentra por debajo del precio determinado").
- ¹³ See article 113, section VIII of the Mexican General Law on Transparency and Access to Public Information (Ley General de Transparencia y Acceso a la Información Pública), which states that: "[t]he information may be classified as privileged if its publication [...] contains the opinions, recommendations or views that are part of the deliberative process of civil servants, until the final decision is made, which must be documented" ("Como información reservada podrá clasificarse aquella cuya publicación [...] la que contenga las opiniones, recomendaciones o puntos de vista que formen parte del proceso deliberativo de los servidores públicos, hasta en tanto no sea adoptada la decisión definitiva, la cual deberá estar documentada"). Similar wording and reference to the law can be found in the Mexican Federal Law on Transparency and Access to Government Public Information (Ley Federal de Transparencia y Acceso a la Información Pública Gubernamental).
- ¹⁴ In the case of open tenders and invitations to at least three providers, this corresponds to the final judgement on the winning bids. In the case of direct awards, it corresponds to the award being signed. See endnote 13 above.
- ¹⁵ This refers to the standard tender procedure for which IMSS publishes the MRP and suppliers present (sealed) offers as a discount (over 0.1%) to that reference price. In the case of reverse auctions, suppliers submit bids at the first stage; the lowest is then used as the starting price for the second stage of the contract auction.
- ¹⁶ Article 39 of the RLAASSP. The maximum reference price needs to be disclosed, however, if any of the bidders file an appeal against the Authority's decision in relation to the contract award.
- ¹⁷ Article 38 of the RLAASSP.

References

OECD (2011), Fighting Bid Rigging in Public Procurement in Mexico: A Secretariat Report on IMSS Procurement Regulations and Practices, http://oecd.org/competition/abuse/49390114.pdf

¹⁸ In extreme cases, the tender may be declared void and procurement subsequently implemented at decentralised level or using direct awards; see the recommendation in relation to the use of exceptions in Section 6.1.

¹⁹ For example, in the case of IMSS purchasing air-conditioning units in 2017, regional procurement across five areas was considered. However, it was found during the market research that not enough potential providers could bid for the envisaged regional tenders. This was confirmed by the suppliers' participation in the local tenders that IMSS eventually organised.

8. Monitoring and information-sharing activities

Comprehensive information on past tenders is a key input into the design of future procurement processes. In its 2011 review of IMSS procurement practices, the OECD noted the need for better mechanisms to help IMSS monitor its procurement processes and outcomes. The OECD's current analysis has shown that IMSS faces a high degree of supply-side concentration, making it important that IMSS strengthens its monitoring, particularly for tender participation. Doing so will also allow procurement officials to identify and remove obstacles to tender participation. IMSS has invested in collecting significant data for its procurement contracts. More detailed tender-level data would enable IMSS to better monitor its procurements and detect possible signs of bid rigging. Established channels for reporting suspicions of collusion within IMSS and greater cooperation with other public buyers are both likely to help IMSS's capability to detect and prevent bid rigging.

8.1. Proactively monitoring participation in tenders and removing any obstacles

Sections 3.1 and 3.2 show that not only does IMSS face a high degree of concentration on the supply side (at the intermediate level of wholesalers and distributors), but also a high number of tenders attracting only one bid (Section 3.4).

In its 2011 review of IMSS procurement practices, the OECD noted that IMSS was contemplating setting up a procurement-monitoring unit and recommended that this unit collect and analyse information on tender participation.

Participation in tenders is an important metric for IMSS. Increased participation increases competition during the bidding process and results in reduced prices (or better quality and other terms being offered). It also makes it more difficult to reach collusive agreements, and to sustain them successfully over time.1

To date, within IMSS, no specialised unit for monitoring and evaluating participation in the organisation's tenders has been established. There is also a lack of easily accessible data on the number of bidders in each IMSS tender. Discussions around this review have indicated that the market-research unit is in the process of setting up a system to monitor the number of bids (which could be compared to the number of quotes at the marketresearch stage) and the difference between offer and quote prices.

The OECD suggests that the market-research unit, provided it is afforded adequate resources, could perform this monitoring function effectively. Its remit could also be gradually extended so that its analysis also includes decentralised procurement (in cooperation with local officials). To enable it to carry out this analysis systematically, IMSS should record adequate data at tender level (see Section 8.2). The market-research unit should also liaise with relevant procurement teams, as well as market participants, to identify barriers to participation, such as tender design or specific market conditions, and explore ways to remove them.

8.2. Maintaining a comprehensive dataset for all tenders in an appropriate format

Following the 2011 review, the OECD recommended that IMSS maintain a comprehensive dataset for its tenders and make it available to COFECE, so that it can be analysed to uncover suspicious bidding patterns. This built on the successful case brought by COFECE for bid rigging in IMSS tenders for insulin between 2003 and 2006. In this case, COFECE was notified of suspicious bidding behaviour by IMSS; the investigation was initiated following an extensive analysis of IMSS bidding data (Box 8.1).

Box 8.1. COFECE experience implementing cartel screens in the IMSS case (IO-03-2006)

Bid rigging in IMSS tenders for insulin for human use and electrolyte and intravenous (IV) solutions

On 25 August 2006, COFECE began an investigation into the IMSS procurement process of insulin for human use and electrolyte and IV solutions. IMSS co-operated with COFECE, giving the regulator access to and advice about its procurement databases. COFECE then conducted a behavioural screening of the data to identify the following patterns among different bidders: 1) equal winning and losing positions; 2) convergence in market shares; 3) structural changes in incumbent firms' behaviour before the entry of new competitors; 4) high profit margins that did not translate into more competitive positions. This economic analysis detected suspected collusive behaviour by several pharmaceutical firms.

The COFECE investigation then discovered contact and communication between the investigated firms, evidence that reinforced this initial hypothesis.

Based on the results of the economic analysis and on the evidence of contact and communication, COFECE issued a statement of objections accusing the firms of bid rigging in the IMSS procurement process. On 28 January 2010, it issued a decision to sanction four pharmaceutical laboratories for eliminating competition through bid rigging in human insulin in the period 2003-2006, and sanctioned three other laboratories for co-ordinating bids in IMSS's public procurement of serums. The total fines imposed were over MXN 130 million.

Source: OECD (2014b).

IMSS continues to liaise and co-operate with COFECE as part of the latter's ongoing investigations into bid rigging in procurement and its efforts to bring possible collusion complaints. There is, however, no regular exchange of tender data between the two organisations that would allow COFECE to carry out analyses to detect suspicious behaviour.

IMSS has taken a number of steps since 2011 aimed at collecting data about its purchases of goods and services, and making them more widely available:

- IMSS routinely collects data on contracts awarded through tenders, invitations to at least three suppliers, or direct awards, both at central-consolidated and delegation-UMAE level. These data are recorded on the IMSS internal procurement system (Sistema de Abasto Institucional, SAI).
- IMSS maintains data on emergency purchases by delegations and UMAEs (see Box 3.1), which are also recorded on SAI. These data are made publicly available and are searchable on IMSS's dedicated procurement portal.²
- Data for IMSS procurement and for consolidated tenders are also stored on CompraNet,3 which is managed by SFP and holds information on all public procurement. It is obligatory for all agencies, including IMSS, to upload relevant information onto CompraNet, including call for tenders, information on bids received, and tender-award documents.

IMSS has been developing, trialling and preparing for the roll-out of a resource-management suite that aims to integrate and automate most supply and financial functions, such as budgeting, contracting and contract monitoring, orders, inventories, invoicing, and tracking movements of goods.

IMSS's initiatives in this area are mostly rooted in transparency or operational considerations, however; they are not designed to assist in the detection of bid rigging.

OECD's 2011 recommendation to IMSS focused on maintaining a comprehensive dataset that could be shared with COFECE, enabling it to conduct statistical or econometric analyses of bidding patterns. The suggested changes to IMSS procurement processes to detect and fight bid rigging contained in this report demonstrate the need for IMSS to use these data itself. For example, detailed and reliable tender data will enable IMSS to monitor and evaluate such parameters as tender participation, the frequency of joint bidding (or multi-brand offers), tender outputs, contract performance, and the accuracy of information received at the market-research stage. Moreover, IMSS itself can analyse data on bidding behaviour in past tenders not only to inform the design of future tenders, but also to uncover possibly suspicious patterns; this requires sufficient data across a large number of different tenders. Finally, this type of data collection could give IMSS a strong deterrence effect: maintaining comprehensive tender data and using them as an input into its own and COFECE's analysis is a signal of IMSS's commitment to fighting and acting upon bid rigging.

In recognition of the value of maintaining good and appropriate data, the OECD is providing detailed guidance to IMSS on the design and content of its tender databases, in the context of the present review and as a complement to this report. This guidance is tailored to the needs identified during the review of IMSS's current data records and the particularities of IMSS procurement processes. It follows the following principles:

- 1. **Data targeting.** The data should fit the scope of any proposed analysis. Identifying the purpose of each analysis will serve to inform the type and format of the data collected. IMSS does not currently focus on collecting tender data, instead concentrating on recording contract data. Information on contracts, however detailed, does not allow for the analysis of bidding patterns, the detection of instances of potential bid rigging or the design of appropriate tenders.
 - To that end, IMSS should maintain a dialogue with COFECE on how to best organise a procurement database that builds on the data it currently records. Competition authorities, including COFECE, are increasingly using rich datasets to detect potential instances of collusion, notably in public procurement (see Box 8.2). Different units within IMSS that are using the data for ex ante or ex post analysis should also be regularly consulted, so that their requirements are taken into account in shaping data records.
- 2. **Data quality.** Good-quality data are paramount to producing useful results that can be interpreted correctly. IMSS should design the data input and validation methods so that data are recorded in a standard, consistent and error-free manner. For example, how pricing and units are used should be uniform; text fields and naming conventions should be set; and checks for discrepancies in coding should – to the greatest possible extent – be built into the data-input stage.
- 3. **Data usability.** Tender data should be as flexible as possible, so that the necessary filters and analytical techniques can be easily applied. As much information as possible should be stored in a searchable format that allows easy handling and use

(for example, detailed records in spreadsheets or databases rather than scanned images of contracts).

Any databases maintained by IMSS should be interoperable, both in terms of formatting and cross referencing. For example, if data at the tender, contract-award and contract-performance stages are held separately, it should be possible to join these records if necessary. Similarly, it should be possible for IMSS data to be paired with records on CompraNet.

4. **Data access.** In designing the database, IMSS should not only establish who holds and maintains it, but also who has access to it, both in terms of inputs (centralised or decentralised model) and outputs. For the latter, IMSS should designate internal users of the data (or parts of them), both among the central procurement teams and officials from delegations and UMAEs, for example, the procurement, administration, market research and contracts teams. Similarly, IMSS should consider selectively granting access to external stakeholders, such as SFP and COFECE (for which an agreement or may be required). Given the nature and content of the information to be held in this database, it should not be made publicly available.

Box 8.2. Cartel screens by competition authorities

Korea's bid-rigging indicator analysis system

In September 2006, the Korea Fair Trade Commission (KFTC) began using a bid-rigging indicator analysis system (BRIAS), to monitor signs of bid rigging in public procurement. This system represented an evolution of KFTC's earlier practice, begun in 1997, of manually analysing bidding data from publicprocurement procedures.

BRIAS collects online public-procurement data concerning large-scale contracts awarded by central and local administrations within 30 days of the contract award. The system then analyses the data and generates scores on the likelihood of bid rigging by assessing factors such as tender method, number of bidders, number of successful bids, number of failed bids, bid prices above the estimated price, and price of winning bidder. Each of these factors is assigned a weighted value and all values are then added up. For instance, higher rates of successful bids and lower number of participating companies are indicative of a possibility of collusion. All bids are also screened according to search criteria such as the name of the winning candidate or bids with similar score.

Switzerland's screening project

In 2008, the Swiss Competition Commission (Commission de la concurrence, COMCO) undertook a project to strengthen its fight against bid rigging by developing a simple and reliable screening tool based on available data (outside leniency applications).

It used "simple" behavioural methods to detect collusion in road construction in one region based on more than 280 tenders over 8 years. An investigation was opened in 2013 (following a data gathering and analysis exercise that started in late 2011) with the case successfully concluded in mid-2016 with a finding confirming the results of COMCO's screening analyses.

Brazil's Brain project (Projeto Cérebro)

In early 2013, Brazil's Administrative Council for Economic Defence (Conselho Administrativo de Defesa Econômica, CADE) set up a screening unit to enhance its collusion-detection capabilities. It developed an interface called Cérebro (Brain) that incorporates data-mining instruments and economic filters to uncover signs of collusive practices in public procurement.

Cérebro makes use of Brazil's federal e-procurement system (Comprasnet), which includes information on the around 60 000 public tenders held every year, to gather data that can inform CADE in opening ex officio investigations and provide evidence and support during investigations

Cérebro uses filters and econometric and statistical methods to identify patterns of bid suppression; cover bidding; bid rotation; superfluous losing bidders; stable market shares; pricing patterns; text similarities in bids; and submitted files' metadata.

UK's "Screening for cartels" tool

The UK's Competition and Markets Authority (CMA) follows a distributed model and has recently developed and released a cartel-screening tool that procurers themselves can use to screen their tender data for signs of cartel-like behaviour.

The tool uses data and documents on tenders (such as call for tenders, bid submissions and respective prices, and the identity of the winning bidder) and algorithms to test for suspicious signs in the number and pattern of bidders; pricing patterns; document origin; and low-endeavour submissions. The data from each tender are scored against each test, and each test is weighted to flag possible instances of bid rigging.

Sources: OECD (2016d). Presentations by CADE, CMA and COMCO at the OECD workshop on cartel screening in the digital era (30 January 2018), www.oecd.org/competition/workshop-oncartel-screening-in-the-digital-era.htm. CMA website, "About the cartel screening tool", www.gov.uk/government/publications/screening-for-cartels-tool-for-procurers/about-the-cartelscreening-tool.

8.3. Systematic dialogue with other public agencies

There are currently two main forums within which IMSS exchanges information with other public bodies regarding its procurement processes and outcomes. The first is CompraNet on which information is posted, held and shared. The second is the IMSS-led joint preparation for annual consolidated tenders (see Section 3.2). In the context of this exercise and the market-research stage in particular, IMSS and its partner participants, such as ISSSTE and PEMEX, report information on the prices they have achieved for their purchases. There is also collaboration and information sharing with CCNPMIS and this should be maintained and strengthened.

IMSS and other public bodies do not proactively engage in co-operation with other public bodies outside the framework of consolidated tenders. The OECD recommends that, in light of the relationships established with other agencies, IMSS should seek to expand information exchanges with other public procurement agencies. This information can include:

- best practices employed by different bodies and experiences from their tenders;
- identification of suspicious bidding patterns;
- a benchmarking comparison of the supplier pool participating in tenders for similar products or the prices offered;
- general market intelligence.

SFP can also be involved, as an enabler and co-ordinator in its capacity as the supervisory body.

It is also noted that, in keeping with its transparency initiative, IMSS has concluded agreements with a number of industry associations and chambers⁴ to promote exchange of ideas and a better understanding and shaping of the procurement process.

8.4. Procedures and lines for reporting suspicions of collusion in tenders

The investigations COFECE has conducted as a result of information received from IMSS (see Section 4.4) are a testament to the importance of any suspicious behaviour being reported and the need for clear channels of communication to report instances of suspicious bidding.

In 2011, the OECD recommended that IMSS set up clear procedures and reporting lines so that its procurement staff could report any suspicions of collusion during tenders. The OECD's review has not identified any such internal channels, including at delegation and UMAE level. In response to the questionnaire addressed to IMSS delegations and UMAEs, for example, four delegations and one UMAE identified COFECE as the recipient of any information about suspicious behaviour; the majority (18 out of 35 delegations and 10 out of 25 UMAEs) refer to the IMSS internal-control unit, while the remainder have no specific channels.

The OECD's review revealed the lack of:

- a well-established internal procedure to report any suspicious behaviour relating to bid rigging, which is clearly communicated to procurement staff; and
- a sufficient understanding of the difference between corruption and collusion, which is particularly important as it can act as a disincentive to the flagging of any suspicious behaviour in tenders.

IMSS should seek to address both these issues. Appropriate reporting lines are essential if action is to be taken to investigate and eventually combat bid rigging in IMSS tenders. These should be communicated clearly to all officials involved in the procurement process. Only through such procedures can information on potential bid rigging be assessed within the organisation and channelled further to COFECE or fed into IMSS tender design.

Procurement officials are best placed to detect any suspicious behaviour, other than in the monitoring and analysis of tender data (see Section 8.2),. IMSS should develop a culture among its staff of reporting such instances. In order to encourage procurement officials to come forward with information, IMSS should improve their understanding of the distinction between corruption and collusion. Appropriate training on the exact nature of bid rigging and how it can be detected is central to this effort.⁵

Since 2016, infringements of the Procurement Act by providers and bidders have to be reported to the Internal Control Unit, but there is no specific reporting mechanism in place to facilitate this. Regarding infringements to the Competition Act, neither reporting units nor reporting procedures have been established. IMSS should design a mechanism allowing its procurement officers to report their suspicions of bid rigging. The reporting unit should preferably be the legal department, which is better suited to analyse the seriousness of the suspicions and to take the relevant action. Setting up anonymised and confidential reporting procedures may also be advisable as it can ease procurement officials' concerns. Box 8.3 discusses similar practices set up by competition authorities in order to invite information on collusive behaviour more generally. The principles behind those tools would equally apply in the case of IMSS internal processes.

Box 8.3. Confidential and anonymous reporting of anticompetitive practices

Competition authorities around the world rely on information from whistle-blowers in order to investigate anticompetitive practices and agreements. Many whistle-blowers come from parties to agreements (for example, in the context of a leniency application programme), but all informants should be able to report illegal behaviour and, as often as possible, to do so anonymously.

COFECE has a standard form on its website that allows any person to report information about possible anti-competitive practices; it underlines that the procedure is secure and confidential, and the sender can provide information anonymously, if he or she wishes.

The European Commission recently introduced a new whistle-blowing tool that allows the exchange of information and goes to extra lengths to protect an informant's anonymity "through a specifically designed encrypted messaging system that allows two-way communications [...] run by a specialised external-service provider that acts as an intermediary, and which relays only the content of received messages without forwarding any metadata that could be used to identify the individual providing the information".

Sources: COFECE, "Reporta prácticas anticompetitivas", www.cofece.mx/autoridad-investigadora/reportapracticas-anticompetitivas. European Commission, Anonymous Whistleblower http://ec.europa.eu/competition/cartels/whistleblower/index.html. European Commission press release, "Antitrust: Commission introduces new anonymous whistleblower tool", 16 March 2017, http://europa.eu/rapid/press-release IP-17-591 en.htm.

8.5. Recommendations for action

- IMSS should record adequate data at tender level to allow for systematic monitoring of participation in IMSS procurement procedures.
- The market-research unit is best placed to monitor participation and compare the (number and level of) quotes at the market-research stage and (number and level of) offers at the tender stage. Its remit could also be gradually extended so that its analysis also includes decentralised procurement, in cooperation with local officials.
- The market-research unit should liaise with relevant procurement teams, as well as market participants, to identify barriers to participation, such as tender design or specific market conditions, and explore ways to remove them.
- IMSS should engage a data-collection process that not only serves transparency and operational considerations, but also assists in the detection of potential bid rigging. More specifically, IMSS should design and maintain good quality and reliable tender data (rather than simply a contract database), which should be stored in a user-friendly format.
- Access to these data should be granted to officials involved in the procurement process across IMSS (both at central and local level) and be shared with COFECE.

- IMSS should seek to expand information exchanges with other public procurement agencies. This information can include, for example, best practices, signs of suspicious bidding patterns, comparisons of number of bids and prices received for similar products, and market intelligence.
- IMSS should establish a clear (and possibly, anonymous) internal procedure for procurement officials to report suspicious instances of bid rigging. The reporting unit should preferably be the legal department, which is better suited to take the appropriate action.

Notes

¹ In monitoring participation in its procurement processes, IMSS should be wary of instances of simulated competition, whereby companies belonging to the same economic interest group participate with separate bids. See also "Las empresas de un mismo Grupo de Interés Económico puededn similar competencia" in COFECE (2018).

References

COFECE (2018), Agenda de Competencia para un ejercicio íntegro en las Contrataciones Públicas, www.cofece.mx/wp-content/uploads/2018/07/CPC-ContratacionesPublicas.pdf

Mena-Labarthe C. (2015), Mexican Experience in Screens for Bid-Rigging, Competition Policy International, www.competitionpolicyinternational.com/assets/Cartel-Column-June-New-Format-Full.pdf

OECD (2016d), Fighting Bid Rigging in Public Procurement: Report on Implementing the OECD Recommendation, www.oecd.org/daf/competition/Fighting-bid-rigging-in-publicprocurement-2016-implementation-report.pdf

OECD (2014b), "Contribution from the Mexican Delegation", in Ex officio cartel investigations and the use of screens detect cartels, www.oecd.org/daf/competition/exofficio-cartel-investigation-2013.pdf

OECD (2011), Fighting Bid Rigging in Public Procurement in Mexico: A Secretariat **IMSS** Report Procurement Regulations and Practices, onhttp://oecd.org/competition/abuse/49390114.pdf

US Department of Justice (2007), Price Fixing, Bid Rigging and Market Allocation Schemes: What What Thev Are and Look For. www.justice.gov/sites/default/files/atr/legacy/2007/10/24/211578.pdf

² See http://compras.imss.go.mx.

³ See https://compranet.funcionpublica.gob.mx.

⁴ Such as the Confederation of Chambers of Industry of Mexico (Confederación de Cámaras Industriales, CONCAMIN), the National Chamber of the Pharmaceutical Industry (Cámara Nacional de la Industria Farmacéutica, CANIFARMA), the Confederation of Employers of the Mexican Republic (Confederación Patronal de la República Mexicana, COPARMEX), the National Association of Distributors of Health Supplies (Asociación Nacional de Distribuidores de Insumos para la Salud, ANDIS), the Business Co-ordinating Council (Consejo Coordinador Empresarial, CCE), the Confederation of the National Chambers of Commerce, Services and Tourism (Confederación de Cámaras Nacionales de Comercio, Servicios y Turismo, CONCANACO-SERVYTUR).

⁵ OECD training on bid rigging was organised for IMSS officials as part of the present review (see section 9.1) to provide information on, among other subjects, the foundations of collusion, the differences between collusion and corruption, and guidance on detecting bid rigging.

9. Training

Awareness of procurement officials about the costs and risks of collusion is important in the fight against bid rigging. In 2011, the OECD recommended that IMSS implement a training programme for its procurement staff focusing on bid rigging and ways to fight it. IMSS, SFP and other institutions, including the OECD and COFECE, have organised and offered training for IMSS procurement officials. While some training schedules covered bid rigging in public procurement, IMSS officials would benefit from a more comprehensive and systematic training programme.

9.1. Training for IMSS procurement officials

9.1.1. Training on the regulatory and practical aspects of IMSS public procurement

The IMSS unit Co-ordination of Procurement of Goods and Contracting for Services (Coordinación de Adquisición de Bienes y Contratación de Servicios, CABCS) organises an annual training programme on the procurement of goods and services. In 2015-2016, for example, this programme included courses on the basic and intermediary use of CompraNet; the Procurement Act and regulations; public contracts; reverse auctions; market research in the context of public procurement;² and more general skill-training sessions (for example, the use of relevant software).

SFP also offers training to procurement officials. In 2015 and 2016, for example, a course on public-sector acquisitions, leases and services for managers (Curso en Materia de Adquisiciones, Arrendamientos y Servicios del Sector Público para Nivel Gerencial en Modalidad Presencial) was offered to IMSS to train officials in procurement planning, contracting and contract management, and the detection of and action against anti-competitive conduct. Similarly, in 2016, the National Institute of Public Administration (Instituto Nacional de Administración Pública) offered a course on procurement, leasing and public-sector services (Curso en Materia de Adquisiciones, Arrendamientos y Servicios del Sector Público), which was attended by 122 officials. In October 2017, SFP offered training to procurement officers about exceptions to open tenders and discouraging their use.

At the time of the OECD's review, 14 delegations outside IMSS's central procurement units reported that their staff had attended courses by SFP and 6 had received other training on procurement. The remaining 15 have not received formal training, but are receiving onthe-job training. In the case of UMAES, 10 out of 21 reported having received some training (for example, on market research).

In the last two years, IMSS has also organised courses aimed at improving the quality and impact of market research at delegation level. In October 2017, a workshop on marketresearch was held for procurement officials from IMSS delegations and UMAEs. This workshop dealt with the minimum content for market research, the design of requests for quotes by potential suppliers, and ways to perform effective search in historical information from comparable tenders. As a follow-on, IMSS is also currently designing an online course on market research for procurement officials in delegations and UMAEs.

9.1.2. Training in fighting bid rigging

Awareness of procurement officials about the costs and risks of collusion is important to the fight against bid rigging. The OECD recommends that agencies regularly train their staff in cartel and bid-rigging prevention and detection.

Though there have been few opportunities for IMSS officials to receive training on fighting bid rigging, the OECD and COFECE did provide a two-day training session on fighting bid rigging in public procurement in May 2011. This session was attended by more than 200 IMSS staff members involved in procurement, both from local delegations and central headquarters. The 2011 OECD report recommended that IMSS, in co-operation with COFECE, continued to offer such training to its staff. In the past seven years, IMSS has organised two workshops on fighting bid rigging.

Under the IMSS/COFECE agreement, COFECE organised one workshop on fighting bid rigging, in September 2014. This comprehensive workshop consisted of seven sessions⁴ over two days and was attended by 158 IMSS officers. The objective of the workshop was to train IMSS officials on competition law, the powers of COFECE, monopolistic practices (bid rigging, in particular), and ways to prevent and detect bid rigging.

In September 2015, the Mexican Development Research Centre (Centro de Investigación para el Desarrollo, CIDAC) organised – with the assistance of the United States Agency for International Development (USAID) – workshops on competition law and economics, and on fighting and detecting bid rigging. Around 24 IMSS officials were trained by CIDAC on this occasion.

During this follow-up assessment, the OECD has organised and implemented an extensive schedule of workshops on fighting bid rigging, with contributions from COFECE and international experts from other competition authorities. These workshops included both training about the theoretical foundations of collusion and ways to prevent and detect it, as well as hands-on training using case studies and real-world examples and cases. The OECD also provided training to IMSS-designated trainers, who can now train other IMSS officials going forward. Around 180 IMSS staff from the central unit, delegations and UMAEs, as well as 20 trainers, attended the workshops.

The OECD has also produced a training manual on bid rigging. This manual is designed to be used by IMSS to set up regular training on collusion (with the potential support of COFECE) for procurement officials, as well as officials in the internal audit and control units.

IMSS should organise and invest in a comprehensive and long-term programme of capacity building in public procurement, and fighting bid rigging in particular, rather than rely on isolated initiatives. This is particularly important given the high rate of procurement-staff turnover at IMSS, which makes on-going training a necessity (see Table 9.1). Moreover, should IMSS follow previous OECD recommendations and establish a certification process for IMSS procurement agents, training on fighting bid rigging should be part of it. Finally, IMSS should make more use of the capacity-building activities foreseen in its agreement with COFECE.

Average Employees Management IMSS staff total 11.5% 11.3% 23.1% IMSS procurement staff 31.7% 26.6% 38.7%

Table 9.1. Turnover rate at IMSS, 2015-2016

Source: OECD (2018b).

9.2. Recommendations for action

- IMSS should organise a comprehensive and long-term programme of capacity building in fighting bid rigging in public procurement, including regular workshops where procurement officials can share their experiences
- IMSS should continue investing in and making use of those trainers who attended the OECD workshops on fighting bid rigging.
- IMSS should make training on fighting bid rigging a part of the certification process for its procurement agents, when the programme is established.
- IMSS should make more use of the capacity-building activities foreseen in its agreement with COFECE.

Notes

References

OECD (2018b), Second Public Procurement Review of the Mexican Institute of Social Security (IMSS): Reshaping Strategies for Better Healthcare, OECD Public Governance Reviews, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264190191-en

OECD (2018c), Mexico's e-Procurement System: Redesigning CompraNet through Stakeholder Engagement, OECD Public Governance Reviews, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264287426-en

OECD (2016b), Results of 2016 OECD Survey on Public Procurement, https://qdd.oecd.org/subject.aspx?Subject=GOV_PUBPRO_2016

OECD (2016c), Improving ISSSTE's Public Procurement for Better Results, OECD Public Governance Reviews. Publishing, OECD Paris, http://dx.doi.org/10.1787/9789264249899-en

OECD (2011), Fighting Bid Rigging in Public Procurement in Mexico: A Secretariat **IMSS** Procurement Report on Regulations and Practices, http://oecd.org/competition/abuse/49390114.pdf

¹ The OECD recommended in 2011 that IMSS include the use of the latest version of CompraNet in its staff training programme.

² For example, the following courses were offered by CABCS in 2015: "Introducción a la Misión Institucional-Compras"; "Desarrollo de Competencias para las Compras Públicas"; and "Marco General para Impartir Capacitación en materia de Adquisiciones, Arrendamientos y Servicios para la Profesionalización".

³ See Section 4.4.

⁴ Session 1: General concepts of competition (approximately 60 minutes); Session 2: Absolute monopolistic practices (approximately 45 minutes); Session 3: Relative monopolistic practices and procedures for determining essential facilities and market conditions (approximately 45 minutes); Session 4: Investigation procedures (approximately 30 minutes); Session 5: Design of a public procurement process that minimises the risk for collusion (approximately 135 minutes); Session 6: Detection of collusion in public procurement, identification of warning signs (approximately 135 minutes); and Session 7: What to do when detecting possible collusion (approximately 30 minutes).

Part III. Impact of the implementation of OECD recommendations for fighting bid rigging

Part II of this report reviewed in detail the progress IMSS has made in implementing the OECD's 2011 recommendations, a process that aimed at helping IMSS minimise the risk of bid rigging in its tenders by instituting changes in its procurement framework, procedures, and practices.

As well as an assessment of the recommendations' implementation status, Part II also extensively examined their direct impact on IMSS procurement processes. This analysis demonstrated the extent to which the recommendations affected the design of IMSS tenders and also informed the follow-up recommendations in this report.

Part III estimates the impact of the recommendations on tender outcomes. Whether the recommendations have indeed eliminated or reduced the risk of such schemes is not a question that can be directly addressed without an investigation into collusive agreements by a competition authority. However, a second-order effect of the changes brought by the implementation of OECD recommendations is an improvement in the outcomes of IMSS tender processes. Such improvements are often tangible and relate to lower prices, higher-quality products, more innovative services, better contract terms, but also other factors such as a potential increase in tender participation and new market entries.

It is not possible to assess the impact of the recommendations collectively. Despite being delivered together, they cannot be viewed as a bundle as they are different in nature (see below and Table III.1); have not all been implemented by IMSS; and, those that have, have been implemented at different rates and points in time. As a consequence, the analysis will look at the separate effect each recommendation may have had.

The 2011 OECD recommendations can be generally classified into three broad categories: 1) changes to IMSS procedures, which will have directly affected the design of tenders IMSS carried out; 2) changes to IMSS's procurement framework and approach to procurement, which will have had an indirect impact on tender design; 3) changes to IMSS's long-term strategies regarding the way it organises its procurement, it interacts with other stakeholders and it trains its procurement officials. This categorisation of the 2011 OECD recommendations is shown in the table below.

Table III.1. Categories of recommendations made by the OECD in 2011

Changes to IMSS procedures, directly affecting tender design	Changes to IMSS's procurement framework, indirectly affecting tender design	Changes to IMSS's long-term strategies affecting procurement
Centralisation of local purchasing	Facilitating the participation of new suppliers in tenders	Co-ordination with SFP
Procuring jointly with other government agencies	Promotion of best practices and standardisation of documents and procedures	Co-operation with COFECE
Use of multi-year tenders	Fighting practices that may facilitate collusion: joint bids	Information sharing: systematic dialogue with other public agencies
Adoption of remote and electronic procedures	Fighting practices that may facilitate collusion: split contracts	Procedures and lines for reporting suspicions of collusion in tenders
Limitations to the use of exceptions to public tenders	Fighting practices that may facilitate collusion: sub-contracting	Training for IMSS procurement officials focusing on bid rigging
Opening up participation as fully as possible	Limitations on information published in the annual procurement plan	
	Unpredictability in procurement and tenders	
	Requirement for a Certificate of Independent Bid Determination	
	Allowing enough time to carry out informative market studies	
	Sufficient amount of information collected from good-quality sources in market studies	
	Non-disclosure of information contained in the market studies to bidders before the tender	
	Proactively monitoring participation in tenders and removing any obstacles	
	Maintaining a comprehensive dataset for all tenders in an appropriate format	

Note: A change in IMSS's treatment of joint bids, split contracts and sub-contracting will have had a more direct effect on tender design. This is not seen at the tender level – the absence of a joint bid or a split award does not necessarily imply that the tender was subject to different rules. For joint bids in particular, it is noted that this information is not recorded in IMSS databases or in CompraNet data (see Section 5.1.1).

It is clear from this classification that only those recommendations in the first group can credibly be thought to have resulted in immediate and tangible results. Changes to IMSS's long-term strategies (the third group) are "softer" recommendations designed to bring improvements in tender design and detection of bid rigging (and so also have a deterrent effect) over time. For example, better and more targeted training of procurement officials will not have an immediate and measurable impact on the outcome of selected tenders. Similarly, changes to the regulatory framework and IMSS practices will have affected procurement procedures by making them being more shielded from anti-competitive behaviours, but any effects will not be necessarily observable and measurable.

The following analysis of the impact of changes implemented by IMSS after the 2011 OECD recommendations is guided and – to an extent – limited in its scope by the data records available, for earlier years in particular. In addition, some of the 2011 OECD recommendations were already being implemented at the start of the review period, so their effect might already have been felt in procurement outcomes.

The analysis that follows in Section 10. measures the overall impact of certain changes in IMSS practices on procurement outcomes, while Section 11. considers a number of case studies, which highlight the impact of different tender characteristics on procurement processes and outcomes.

10. Impact on tender outcomes of changes in IMSS procurement practices

While IMSS's success in combatting bid rigging cannot be directly assessed, the outcomes of its various tender processes are a measure of the impact on its procurement of policy changes following the 2011 OECD recommendations. Tender design is found to be a significant determining factor. Opening up participation in IMSS procurement procedures by using public tenders and allowing non-Mexican bidders results in prices that are up to 12% and 2% lower, respectively. In addition, centralisation and consolidation of purchases has also yielded significant benefits to IMSS, amounting to savings of up to MXN 15 billion from centralisation and up to MXN 6.5 billion from consolidation, in the 2009-2016 period. These findings confirm the positive impact on procurement outcomes triggered by IMSS's implementation of the relevant recommendations, and suggest similar effects from a continuation of similar procurement practices.

This section of the report attempts to measure directly the impact of particular changes to IMSS tender procedures on achieved outcomes. In particular, two changes to IMSS procurement strategies - which followed the 2011 OECD recommendations - are investigated:

- 1. **Increased centralisation of procurement** previously undertaken by IMSS delegations and UMAEs.
- 2. Introduction of **joint procurement with other government buyers**, led by IMSS (consolidated tenders).

The main variable of interest in the estimates is the price IMSS achieved for the products it procures or the equivalent savings it may have secured. While potentially interesting as a variable, the level of discounts secured by IMSS is not considered a reliable measure of the success of its procurement processes as the level of discount depends on the reference prices set by IMSS; these are endogenous to implemented changes because: 1) as IMSS's market-research capabilities improve the prevailing price will be closer to the MRP it sets;¹ and 2) as IMSS is more successful at combating bid rigging it achieves lower prices, which are then reflected in future MRP calculations. Moreover, discounts are sometimes offered in-kind, such as for single-source medicines negotiated by the CCNPMIS in which contract prices do not reflect the true "effective" price.

Some of the 2011 OECD recommendations were aimed at increasing participation in IMSS tenders, which has been directly linked with reducing the risk of bid rigging in public procurement (for example, by making the alignment of objectives and reaching a collusive agreement more difficult or by inducing more aggressive bidding). However, participation in IMSS tenders has not been systematically recorded in the reference period, so this dimension of the competitive process is not incorporated in the analysis. Section 10.3 investigates the evolution of concentration of winners in certain IMSS tenders (also see Sections 3.1 and 3.2).

Finally, the importance of the 2011 OECD recommendations directly affecting the design of IMSS tenders (see Table III.1) is assessed. This establishes the individual contribution of tender design choices to the prices IMSS has achieved (and is likely to achieve in the future).

10.1. Impact from centralisation of procurement

One of the OECD's key recommendations in 2011, which had a direct and immediate effect on IMSS tender design, was the centralisation of IMSS local purchasing. As outlined in Section 3.1, IMSS has largely implemented this recommendation, even if it has not done so uniformly across product categories as not all products are suited for central purchasing.

The choice of the methodology used to estimate the effect of centralising IMSS procurement is guided by two factors:

- 1. Timing of the introduction of centralisation. Contrary to other OECD recommendations (including tender consolidation, discussed in Section 10.2), in 2011, centralisation of local purchasing was already underway and being gradually introduced (from before the 2009 start of the available IMSS contract data).
- 2. Limitations in the data. The analysis is based on contract data collected by IMSS (for the period 2009-2016). Missing data necessarily limit the nature of this exercise (see Annex A). In this context, it is also noted that the change in product coding in

mid-2012 partly decreased the sample of products for which a price comparison across tenders can be made.2

In order to measure the impact of this shift towards centralised procurement, a comparison is made between the price achieved for the same product in concurrent tenders organised at IMSS central level and those organised by IMSS delegations and UMAEs. The annual savings achieved by IMSS are calculated as follows:

$$savings_t = \sum_i (p_{it}^c - p_{it}^l) \bar{q}_{it}^c$$

where t = 2009, ..., 2016 is the year in which the contract starts³ and p and \bar{q} are the price and maximum quantity⁴ in the contract for the purchase of product i at year t. Superscripts c and l denote central and local tenders respectively. In those years where there exists more than one tender/contract for the same product, the weighted average price is used in the calculations. It is noted that, by construction, the savings function allows for negative savings, in other words it takes into account cases where local tenders have yielded lower prices.

This comparison considers the relevant counterfactual price for each product sourced by IMSS at central level to be the price IMSS has secured through its local procurement in the same year. An alternative approach, the results of which are also reported below, considers tenders in the same half-year period: this approach results in a finer calculation of price differentials, but also in less inclusive comparisons (given that fewer products will have been purchased in the same half-year as compared to full-year periods).

This methodology for calculating savings from centralisation does not control for other factors that likely determine the final offer price, so results should be interpreted with caution. These factors include the number of bidders and the characteristics of the procurement process, such as whether it is a public tender or not, international or national.⁶ It is implicit in the calculations that any savings are primarily due to the different behaviour of bidders in central and local tenders. The estimation in Section 10.3 controls for some of these factors.

In addition, the estimated savings may be overstated to the extent that the outcomes achieved in local tenders organised after the introduction of centralised procurement are systematically worse than those prevailing before centralisation. This may be either because residual local procurement necessarily involves lower volumes hence higher prices or because of the effect of procurement outcomes from particular IMSS delegations and UMAEs.

The savings achieved by IMSS by centralising its local procurement are shown in Table 10.1. Each table has two panels, excluding and including IMSS savings for consolidated tenders (which are central in nature). The first two lines in each panel show the savings arising from those products for which a comparison can be made (i.e. products purchased in the same year or half year) in MXN amounts and as a percentage of total expenditure for the set of products/tenders analysed. The third line applies the annual savings rate to all central purchases in each year.

Table 10.1. Savings from the centralisation of IMSS's local purchasing

Savings calculated for products procured in the same full year

		2009	2010	2011	2012	2013	2014	2015	2016	Total
Central	Savings (MXN millions)	808.7	1 049.3	3 764.7	1 411.2	512.3	788.9	1 465.8	1 069.9	10 870.7
	Savings (%)	2.4%	6.6%	13.7%	5.2%	15.0%	9.6%	28.9%	30.6%	8.8%
	Projected savings (MXN millions)	880.5	1 133.1	3 988.5	2 082.2	789.0	1 312.7	3 064.8	1 931.1	15 181.7
Central and consolidated	Savings (MXN millions)					3 526.4	4 391.0	4 113.1	3 229.9	22 294.3
	Savings (%)					20.3%	18.5%	19.1%	18.3%	12.1%
	Projected savings (MXN millions)					5 868.2	7 580.5	7 323.4	5 207.4	34 063.8

Savings calculated for products procured in the same half year

		2009	2010	2011	2012	2013	2014	2015	2016	Total
Central	Savings (MXN millions)	480.3	855.4	2 908.8	1 341.2	595.5	698.8	1 246.4	1 033.5	9 159.9
	Savings (%)	1.4%	5.4%	10.6%	4.8%	17.5%	8.5%	24.3%	29.3%	7.4%
	Projected savings (MXN millions)	522.9	923.8	3 081.1	1 963.2	916.7	1 162.5	2 587.7	1 860.3	13 018.2
Central and Consolidated	Savings (MXN millions)					2 878.8	3 020.1	2 351.6	3 609.1	17 445.4
Conconductor	Savings (%)					16.6%	12.6%	10.9%	20.4%	9.4%
	Projected savings (MXN millions)					4 791.9	5 203.9	4 184.8	5 815.3	26 486.9

Note: The purchases of products that show a price difference of over 75% (in absolute terms) in each year or half-year are excluded from the calculations.

Source: OECD analysis of IMSS tender data.

On average, centralisation of procurement is estimated to have resulted in IMSS savings of between 7.4% and 8.8% for the period 2009-2016 (with annual saving rates ranging from 1.4% to 37.5%). This translates to savings of between approximately MXN 13 and 15 billion over the same period. If consolidated tenders are also considered as part of IMSS centralised procurement the savings rate is between 9.4% and 12.1%, with corresponding savings up to MXN 34 billion.

There exists some non-trivial variation in the price differences between central and local procurement in each year; and the corresponding savings. This difference is explained by the effect that the mix of products and tenders in each year has on the price differentials observed. The mix incorporates varying quantities from each product, different purchasing units (delegation or UMAE), and the balance of procurement procedures employed (such as public tenders, restricted invitations or direct awards).

Overall, the preceding analysis reveals that IMSS achieved significant savings following the centralisation of its procurement. Nonetheless, as noted in Part II, IMSS will benefit from carefully monitoring its tenders and participation; in particular, assessing the impact of procurement centralisation on supplier concentration. A systematic comparison of the prices (or other terms) agreed with suppliers at central and local level for each product will

allow IMSS to determine the appropriate mix of central and local purchasing so that it consistently achieves the best outcomes from its procurement.

10.2. Impact of procuring jointly with other public bodies

Section 3.2 discusses the steps that IMSS has taken to lead joint procurement efforts with other public bodies. Since 2013, annual large-scale consolidated tenders have been organised with a (growing) number of other public institutes and agencies. These efforts implement another key 2011 OECD recommendation and create an additional opportunity for IMSS to exercise (and benefit from) its buyer power.

Using tender data from IMSS procurement procedures in the period 2012-2016 and the 2013-2016 consolidated tenders, the impact of joint procurement on prices agreed by IMSS and its consequent spend is estimated below. More specifically, the offer price for a product in consolidated tenders is compared to the price IMSS paid in the previous year. This separates new products added to the consolidated tender exercise and existing products and so decomposes first-order and second-order price effects.⁷

The annual savings from new products added to the consolidated tenders and existing products in the consolidated tender exercise of the previous year are calculated using the following two equations:

$$savings_from_new_t = \sum_{i} (p_{it}^c - p_{it-1}^{nc} * infl_t) \overline{q}_{it}^c$$

$$savings_from_existing_t = \sum_{k} (p_{kt}^c - p_{kt-1}^c * infl_t) \, \bar{q}_{kt}^c$$

where t = 2013, ..., 2016 is the year in which the contract starts⁸; infl is the yearly inflation rate; and p and \bar{q} are the price and maximum quantity⁹ in the contract for the purchase of product i or product k at year t. Subscripts i and k correspond to products new to the consolidated procurement and those already in the consolidated tender of the previous year, respectively. Superscripts c and nc denote consolidated and non-consolidated (IMSS central or local) tenders respectively. In those years where there exists more than one tender/contract for the same product, the weighted average price is used in the calculations. The savings functions are symmetrical, as they also allow for negative savings.

This comparison considers that the relevant counterfactual price for each product in the consolidated tenders as the price IMSS would have paid had it been purchased through IMSS's central or local procurements. This price is calculated by applying the annual inflation rate to the average price of each product in the previous year. In the case of medicines, the inflation rate is taken from INEGI's price index for medicinal products, whereas the consumer price index (CPI) is used for medical material (see Annex A).

The results of this analysis are shown in Table 10.2. In the period 2013-2016, consolidated tenders included the purchase of medicines and medical materials and estimated price effects and savings are shown separately for medicines and medical material, as the patterns are different for each product category. Similar to the estimation of savings from centralising procurement (Section 10.1), the second and fourth line in each matrix apply

the annual savings rate to all consolidated purchases of each type of good by IMSS in each year.

The last line in each matrix repeats the methodology outlined above for those products not included in consolidated tenders. This validates the results obtained for products in the consolidated tenders by ensuring that calculations are not simply picking up changes in the price of all products. In addition the reported ratios can also serve as a counterfactual movement in prices, so that the estimated saving rates are "corrected" accordingly. For example, in the case of medicines in 2013, IMSS saved 5.4% from moving items into consolidated tenders, but given that the price of items outside the consolidated tenders rose by 2.4%, the true saving may have been up to 7.8%.

Table 10.2. Savings for IMSS from consolidated tenders

Medicines										
	2013		2014		2015		2016	i	Total	
	MXN millions	%	MXN millions	%	MXN millions	%	MXN millions	%	MXN millions	%
Savings from items added to consolidated tenders	1 024.2	5.4%	4.4	0.1%	36.7	2.7%	9.7	3.7%	1 075.0	3.7%
Projected savings from items added to consolidated tenders	1 228.3		8.5		65.1		29.2		1 331.1	
Savings from items already in consolidated tenders			1 034.4	5.4%	683.8	3.0%	872.8	5.1%	2 591.0	4.4%
Projected savings from items already in consolidated tenders			1 034.5		720.2		1092.1		2 846.8	
Benchmark: hypothetical savings from items not in consolidated		-2.4%		0.2%		-1.2%		-2.6%		-1.4%

Medical material 2013 2014 2015 2016 Total MXN MXN MXN MXN MXN % % % % % millions millions millions millions millions Savings from items added to 426.3 12.4% 50.7 20.9% 26.9% 16.2 4.9% 565.0 13.2% 71.8 consolidated tenders Projected savings from items 455.5 82.4 18.2 623.2 67.1 added to consolidated tenders Savings from items already in 164.1 8.1% 44.8 2.8% 59.9 4.0% 268.8 5.2% consolidated tenders Projected savings from items 820.7 164 1 535.3 121.3 already in consolidated tenders Benchmark: hypothetical savings from items not in consolidated 3.9% -7.2% 21.6% -1.3% 3.6% tenders

Note: The purchases of products that show a price difference of over 75% (in absolute terms) in each year are excluded from the calculations.

Source: OECD analysis of IMSS tender data and consolidated tender data.

tenders

For medicines, Table 10.2 shows significant savings accruing with the introduction of consolidated purchasing in 2013, with prices dropping on average by 5.4% (or 7.8%, corrected). With the exception of 2014, percentage price reductions have remained significant for new products added to the consolidated tender procurement cycle, even if the corresponding values are significantly lower (reflecting the fact that few new items were added in the years 2014-2016). Items already in the consolidated tenders have also continued to show a downward price trend even in the years after their introduction to joint purchasing procedures: year-on-year changes range from 3% to 7.7% depending on the year and the measure used. Overall, in the period 2013-2016, the prices of medicines in consolidated tenders have been between 4.2% and 5.6% lower than those for products outside the consolidated tenders. 11 In turn, this translates into (projected) savings of MXN 4.2-5.2 billion in the same period.

For medical material, price changes are generally higher and more volatile. The cost of most of those products in relation to medicines make the value of the savings achieved typically lower. On average, medical material purchased through consolidated tenders has attracted prices that are between 5.3% and 8.9% lower than the prices offered for those products outside annual joint procurement exercises. 12 These lower prices translate to (projected) monetary savings between MXN 861 million and 1.4 billion.

By implementing the OECD recommendation to procure jointly with other government bodies, IMSS has used it buyer power to attract better prices for its purchases. This likely follows more aggressive bidding by suppliers (associated with a reduced incentives for potential providers to rig bids). The OECD estimates that IMSS has realised savings of MXN 5.6-6.5 billion over the period 2013-2016, which corresponds to 5.3-5.8% of its spending on those products.¹³ This only concerns savings that IMSS itself has realised; other participants in the consolidated tenders will have also benefitted from this joint purchasing process.¹⁴

In order for these benefits (in the form of lower prices) to be sustained in the medium to longer term, IMSS should continue to monitor the supply-side concentration of the relevant markets, and participation in its tenders in particular, paying attention to both upstream manufacturing and intermediate wholesale/distribution markets (see also Sections 3.2, 3.4 and 8.2). Losing potential or actual competitors, which is difficult to reverse, would lead to softer bidding in IMSS tenders (including consolidated tenders) and would make collusive agreements between suppliers easier to reach and implement.

The savings reported in Table 10.2 likely underestimate the true savings IMSS achieves from pooling its purchases with other public bodies, as the prices offered outside consolidated tenders, which are the relevant comparators, already incorporate the benefits of changes in IMSS's procurement practices. First, the counterfactual prices are often themselves lower than they would otherwise be because products are being procured centrally (or indeed in consolidated tenders). ¹⁵ Second, the positive effect on the price of a product purchased through consolidated tenders spills over to other tenders, both in the same or following years (see also Section 10.).

In a similar way to the assessment of centralising local procurement in Section 10.1, the analysis in this section does not take into account other factors that may (partly) affect the final price offered for products in the consolidated tenders, such as the number of participants. Moreover, the mix of products purchased each year and the respective volumes, as well as the IMSS contracting units purchasing outside the consolidated tenders (in what constitutes the counterfactual, either in the same year or the year before), will all have an impact on the price differentials identified.

10.3. Overall impact of tender design on procurement outcomes

The next stage in the analysis of the 2011 OECD recommendations' likely effects is to use IMSS tender data (see Annex A) to examine empirically the contribution of various aspects of tender design to tender outcomes. In doing so, the effects from the implementation of corresponding OECD recommendations are implicitly evaluated.

The impact of the expected size of each product purchase and an array of tender-specific characteristics on the unit price IMSS agrees to pay to each supplier is measured. This empirical analysis is based on the following semi-logarithmic specification:

$$ln(p_{ij}^*) = \alpha + \beta ln(\bar{q}_{ij}) + \gamma_i D_i + a_k + a_t + \varepsilon_{ijt}$$

The dependent variable is the (logarithm of the) price p^* agreed for product i in tender j. The prices have been converted to 2012 real prices using the consumer price index from INGEI, normalised based on the minimum price for each product in 2012.

The continuous explanatory variable is the expected size of the contract for product ifollowing tender j, as measured by the (logarithm of the) maximum volume \bar{q} . The volume demanded is also a measure of IMSS's buyer power.

D is a matrix of categorical control variables that correspond to the characteristics of each tender. They identify: 1) whether a procurement procedure is a public tender; 2) whether it is open to non-Mexican suppliers; 3) whether it is part of the consolidated tenders exercise; 16 and 4) the relevant IMSS contracting unit (i.e. which delegation or UMAE organised the tender or whether it is centrally run). These variables also serve as a proxy for the intensity of competition for each tender, given that the level of tender participation is not readily available.

 a_k and a_t are product-category¹⁷ and half-year indicators that capture the heterogeneity among different product categories and the varying economic conditions across time, respectively. $\varepsilon_{i,it}$ is a random shock.

The model was estimated using fixed-effects panel data techniques and robust standard errors were calculated to account for heteroscedasticity across the various products procured. The results of the estimation are in Table 10.3.

log(Price index) (1) 4.8359 *** 4.7949 *** Constant (0.0061)(0.0069)-0.0138 *** -0.0171 *** log(Maximum quantity demanded) (0.0005)(0.0006)-0.119 *** -0.1268 *** Public tender (0.0023)(0.0024)-0.0135 *** -0.0213 *** Tender open to FTA or international bidders (0.002)(0.0021)-0.0861 *** -0.1189 *** Consolidated tender (0.0056)(0.0055)Half-year dummies ves yes Product-category dummies yes yes Delegation dummies no yes

Table 10.3. Volume, tender characteristics and prices in IMSS tenders

Note: Excludes single-source and patented products, where they could be identified. ¹⁸ Robust standard errors are reported in parentheses. * signifies estimates significant at 10%; ** significant at 5%; *** significant at 1% level respectively.

404 401

404 401

Source: OECD analysis of IMSS tender data.

The estimation results in Table 10.3 show a statistically significant relationship between tender design and achieved outcome. The use of a public tender results in a price 11.2% to 11.9% lower than the price prevailing when a direct award or a restricted invitation is used. Opening up participation in tenders has a 1.3% to 2.1% impact on prices in relation to national tenders. Finally, consolidated tenders generally achieve price outcomes that are between 8.2% and 11.2% lower than those of standard tenders. ¹⁹ The results also show that the higher the quantity demanded the lower the price: on average, a 10% increase in the (maximum) contract volume leads to a price drop of 1.5-1.9%.

These effects show the positive impact on procurement outcomes of OECD recommendations on tender design. They also demonstrate the further benefits that would accrue from deepening the implementation of the relevant recommendations.

10.4. Impact on concentration

Observations

Consistent with the 2011 OECD recommendations, Sections 3.1 and 3.2, as well as Sections 10.1 and 10.2, highlight the importance of monitoring the impact of changes to IMSS procurement strategies and practices on tender participation. Aggregation of requirements (whether within IMSS or jointly with other public bodies) has the potential to limit the pool of eligible suppliers to those with the size and capabilities to cope with the volumes and logistics demanded.

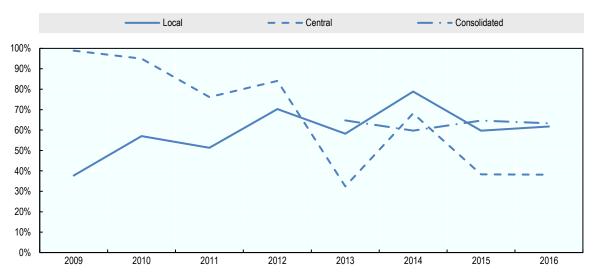
The following figures show the concentration in the supply of medicines to IMSS and illustrate the impact that centralisation and consolidation of IMSS procurement may have on supplier concentration. Given that participation in IMSS tenders is not systematically recorded in IMSS databases, the tender winners' share of supply is considered.

More specifically, Figure 10.1 shows the concentration ratio of the top-four suppliers (CR4) for each level of aggregation.²⁰ CR4 is around 60% for local purchasing of medicines. The equivalent measure for central tenders has been decreasing (from over 90% in 2009-2010 to below 40% 2013, 2015 and 2016), but the concentration for consolidated tender winners is also high at around 60%. This indicates fairly concentrated and stable

markets. Moreover, there is significant overlap between the suppliers in IMSS tenders: in the period 2011-2016 at least two of the top-four suppliers are the same for local and central tenders (2011-2012) as for central and consolidated tenders (2013-2016).

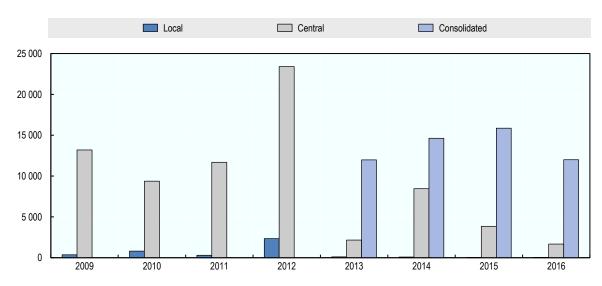
Figure 10.2 shows the corresponding values attributable to the top-four suppliers and what that means for the strength of the top IMSS suppliers (or conversely, the relative weakness of the remaining suppliers that cover residual requirements).

Figure 10.1. Concentration ratio (CR4) of IMSS tender winners for the supply of medicines in each year, based on contract value



Source: OECD analysis of IMSS tender data.

Figure 10.2. Value of contracts awarded to top-four suppliers of medicines to IMSS in each year (MXN millions)



Source: OECD analysis of IMSS tender data.

Notes

- ¹ This effect may be stronger when comparing the outcome of tenders organised at central and delegation/UMAE level.
- ² The ratio of product codes found both in central and local concurrent tenders in the period 2009mid-2012 is over 90%. This ratio falls to just under 65% in the period mid-2012-2016.
- ³ The contract start date is used as an approximation for the year in which the tender was held. Assuming that the approximate contract start date is known to bidders, the price offers will reflect the expected pricing conditions during the contract term.
- ⁴ The maximum quantity stipulated in the contract is an upper bound for scaling the potential savings that can be achieved and not necessarily the actual savings. However, given that this potential maximum quantity demanded by IMSS is likely the driver for competition among bidders, it is consistently used in the calculations throughout this section.
- ⁵ It follows from this assumption that prices in the same year should not be deflated. While this may not be exactly true for all prices (for example, prices in January and December of the same year) the impact on the estimated savings should be minimal when viewed across all years in the reference period.
- ⁶ Some of these characteristics may be correlated with the choice of carrying out a central or local tender. For example, the former is more likely to be a public tender whereas direct awards are much more frequent in local procurement.
- ⁷ A number of alternative methodologies or scenarios were also considered, but were either not possible due to the nature or unavailability of data or did not produce robust results. These included using minimum instead of average prices in comparisons, using prices from other purchasing bodies as a counterfactual state, or using a difference-in-difference econometric estimation of the impact of consolidation in IMSS procurement.
- ⁸ See endnote 3.
- ⁹ See endnote 4.
- ¹⁰ Medicines in group codes (grupos) 010, 020, 030 and 040 are included in the consolidated tenders. The corresponding group codes in the case of medical material are 060, 070 and 080.
- ¹¹ These percentages take into account the price changes of both new and existing products in consolidated tenders. The higher percentage also corrects the saving rate using the outside price changes.
- ¹² See endnote 12.
- ¹³ IMSS estimates that it has saved MXN 8 432 million in the same period; see Table 3.1.
- ¹⁴ While the savings of other public bodies may be lower due to their lower requirements, they stand to gain more from IMSS's purchasing power.
- ¹⁵ For this reason, the savings calculated in this section cannot be compared with those implicit in the savings from all central tenders (including consolidated tenders) shown in Table 10.1.
- ¹⁶ Consolidated tenders are flagged separately since they pool requirements from different public bodies (over and above the volumes reported within IMSS tender data, say, for central procurement); see also sections 10.1 and 10.2, and note 15 above.

References

Kennedy, P. E. (1981), "Estimation with Correctly Interpreted Dummy Variables in Semilogarithmic Equations", American Economic Review, vol. 71(4), p. 801

¹⁷ Product codes in IMSS tender data (and the *Cuadros Básicos*) have five levels of coding: *Grupo* (Group); Genérico (Generic class); Específico (Specification); Diferenciador (Differentiator); Variante (Variant). The product category used in the estimation uses the first three levels of product codes, which implicitly assumes that products of the same family but different characteristics (packaging, dosage, etc.) have common price determinants.

¹⁸ This exclusion has no material impact on the results of this estimation.

¹⁹ See Kennedy (1981) for a discussion of the interpretation of the estimated coefficients.

 $^{^{20}}$ CR4 measures the combined share of supply that the top-four suppliers command.

11. Selected case studies

A review of IMSS's procurement history using a basket of selected products highlights the impact that different tender characteristics have on procurement processes and outcomes, as well as their likely (future) impact. A number of OECD recommendations to IMSS are found to have been key in achieving desired procurement outcomes and realising savings. Tender design, guided by informed market research, is invariably paramount in achieving those outcomes. Elements of the tender process, such as the level of aggregation of requirements and tender participation, are found to have a significant effect on the terms IMSS secures for its procurement.

documented the positive relationship between tender outcomes and Section 10. characteristics of IMSS's procurement processes linked to the 2011 OECD recommendations. This section reviews the history of procurement strategies, tender design, processes and outcomes for a selection of products that IMSS purchased in the period 2009-2016. Using concrete examples, it aims to demonstrate the impact of different tender characteristics on procurement processes and outcomes, as well as their likely future impact.

A basket of representative products across the main product categories for IMSS procurement has been selected. It is mainly made up of products that account for a high share of IMSS value or volume of purchases and have enough variance in their procurement to allow for meaningful conclusions to be drawn.

- Generic medicines: anti-haemophilic human factor VIII; diclofenac; immunoglobulin G; metformin; paracetamol; ranitidine.
- Patented medicines: celecoxib; imatinib.¹
- Medical material: gauzes; infusion sets; sutures.
- Other products: paper towels.
- **Services**: insurance.

A number of data sources,² including IMSS contract data, consolidated tender data and records of tender documents, are used to examine such variables as tender-design choices (such as local, central or consolidated tenders; public tenders and exceptional procedures; national or international tenders), and participation in IMSS procurement, price outcomes and savings.

This is not an exercise in identifying instances or suspicions of collusion. None of the conclusions and findings presented in the following chapters should be construed or interpreted to imply collusion. Rather, this section attempts to show how particular features of tender design affect the outcomes IMSS achieves. More specifically it attempts to show the benefits accrued by IMSS when it employs particular strategies and implements certain of the 2011 OECD recommendations, and where possible, to quantify this benefit. For example, a hypothetical finding of an increase in the number of offers after IMSS centralised its purchasing should not be interpreted as evidence that suppliers were colluding and supressing the number of bids at a local level; rather, this section simply notes the impact on prices and highlights the savings IMSS has achieved from changing its procurement process.

Certain findings emerge from the analysis of these case studies, notably, the importance of tender design in achieving competitive and favourable procurement outcomes. This review also makes clear that no single procurement strategy can be recommended as best for all products and circumstances. Each case is used to highlight a number of different aspects of the 2011 OECD recommendations and their impact on tender design and consequently on tender outcomes:3

1. An overhaul of IMSS market research was a key OECD recommendation in 2011 and the cases reviewed in this section underline its importance. By reviewing the impact of such factors as past tender-design choices, the history of outcomes across different tenders, and by investigating the reasons for any changes to participation, market research emerges as the principal tool for IMSS when making any necessary changes to its procurement strategy for each product purchase. (See Sections 11.1, 11.3, 11.7, 11.8, 11.9 and 11.11.)

- 2. Central and consolidated tenders typically result in lower prices than those achieved by local delegation- and UMAE-level procurement. The exact mechanism behind this is difficult to ascertain as it may be the result of more wellinformed tender-design at the central level, scale and cost savings passed on to IMSS or the elimination of bid-rigging in the tendering process. (See Sections 11.2, 11.4, 11.5 and 11.6.)
- 3. This potential for local prices to be higher emphasises the need for careful requirement planning to stop procurement units having to resort to purchasing smaller, top-up volumes. (See Sections 11.5 and 11.10.)
- 4. Generally, there is a link between tender type and the contracting unit. Local procurement by delegations or UMAEs far more frequently uses direct awards or restricted invitations, and national awards that restrict participation to **Mexican suppliers.** This can be explained by the nature of procurement at local level (top-up and, often, emergency purchases); it is also associated with higher prices typically paid by delegations and UMAEs. (See Sections 11.5, 11.10 and 11.11.)
- 5. Centralised and consolidated procurement has a second-order (or spillover) positive effect that is not directly observable. Namely, the price obtained by IMSS through centralised procurement becomes the price at delegation level, either because it is the outcome of the tender process or because centrally agreed prices are directly applied to contracts awarded by delegations. Central procurement appears to act as a constraint on pricing at the delegation level. (See Section 11.1.)
- 6. An additional positive result is the savings achieved by other public bodies that participate in IMSS-organised consolidated procurements. With IMSS requirements accounting - on average - for three quarters of volumes pooled in these consolidated tenders, other participants benefit from the positive effects the procedure has on bidding behaviour and procurement outcomes. IMSS's purchasing power aids other public procurers.
- 7. In certain of the reviewed cases, however, local prices (even for emergency purchases outside the public procurement process) were found to be lower than those IMSS had agreed with suppliers following central or consolidated tenders. This should be assessed by IMSS's market-research unit so that changes in the design of the relevant tenders are made (for example, using regional, instead of centralised, tenders where suitable). (See Sections 11.1 and 11.3.)
- 8. One drawback of centralisation and joint purchasing has been a tendency towards supply-side consolidation, at least in terms of participation in IMSS tenders. The 2011 OECD recommendations cautioned IMSS about the need to continue monitoring the impact of centralising and consolidation of procurement on supply-side concentration and on the pool of potential competitors in its tenders. The present report repeats those recommendations to ensure that there is no longterm loss of credible competitors in IMSS tenders.⁴ (See Sections 11.2, 11.4 and 11.5.)
- 9. The procurement history of some of the examples reviewed in the following sections also showcases the change in IMSS's approach to contract splits. In line with the corresponding 2011 OECD recommendation, there has recently been a gradual move away from using 60/40 splits towards 80/20 splits. Moreover, split contracts have become less frequent. (See Sections 11.4 and 11.10.)

10. In the case of patented medicines, there has been an downward impact on price upon patent expiration. The significance of these price effects and associated savings means that IMSS should closely monitor patent expirations and – to the greatest possible extent - enable and support new entry by generics. In this regard, close co-operation with COFEPRIS would be central. Moreover, IMSS would benefit from anticipating the new entry of generics and adjusting its procurement schedules accordingly. (See Section 11.7.)

11.1. Generic medicines: Anti-haemophilic human factor VIII (AHF)

Haemophilia is a genetic disease that affects the coagulation of the blood in men and is caused by a lack of an essential blood-clotting protein, factor VIII (FVIII).5 Treatment for haemophilia requires administering FVIII, also known as anti-haemophilic factor (AHF). This is done mostly in emergencies, but also as a therapy to reduce possible incidents. FVIII is available as a generic drug and currently has 12 market authorisations in the COFEPRIS registry. The generic active ingredient is listed on IMSS's Cuadro Básico drug catalogue.⁶

Figure 11.1 shows the quantities of AHF demanded by IMSS for the period 2009-2016 and the unit prices it has agreed with suppliers following public procurement procedures. The variation in the annual volumes demanded is most likely driven by the fact that AHF is an emergency medicine used by a small section of the general population. However, there has been a marked increase in IMSS's total AHF requirements since 2013.

Q(C) □ P(L) □ Q(L) Qm(C) Qm(L) Qo(C) ▲ P(C) Thousands MXN 800 3 500 700 3 000 600 2 500 500 2 000 400 1 500 300 1 000 200 500 100 0 n Jan Oct Oct Nov Dec Dec Nov Nov Nov Dec Apr Jan May Nov Nov Nov Dec Oct Dec Jul Dec Mar Sep Nov Sep Dec 2010 2012 2013

Figure 11.1. Purchase volumes and unit prices for AHF in IMSS public procurement

Notes: Q – purchased volumes; Qm – maximum volumes specified in the tender; Qo – quantity requested by participants in the consolidated tenders other than IMSS; P - price. (C) and (L) respectively denote tenders run centrally (including consolidated tenders) and locally. If different prices are quoted for split contract awards, only the lowest price is shown. Dates correspond to the award date for each contract. Cancelled contracts are excluded. Only 2008 tenders for contracts running in 2009 are shown in the chart. The contracts issued in December 2013, December 2014 and November 2015 followed a consolidated tender run by IMSS. However, due to inconsistencies found in the various data sources reviewed, this tender is shown as a tender run centrally for IMSS requirements only.

Source: OECD analysis of IMSS contract data.

For prices that IMSS has secured following its various tendering processes, some following local tenders were clearly higher, but often local tenders resulted in price offers in line with those secured during central processes. When this happened, the supplier was generally one regularly winning central contracts (also see Table 11.1). This either means that centrally agreed terms constrained the price in locally organised tenders (often direct awards, hence contracts likely regarded as extensions or top-ups for centrally awarded ones) or that central tenders may not have fully achieved their aim of extracting additional discounts from suppliers. The latter explanation is perhaps also supported by the observation that some local tenders have resulted in prices lower than those centrally agreed (although this may be due to other reasons), and emergency purchases by IMSS delegations, outside the normal procurement process, have often been made at prices not dissimilar (and sometimes lower) to centrally agreed ones (Figure 11.2).

▲ Central procurement □ Local procurement o Emergency purchases 3 000 2 500 2 000 1 500 1 000 500 24-12-2008 24-12-2009 24-12-2010 24-12-2011 24-12-2012 24-12-2013 24-12-2014 24-12-2015 24-12-2016

Figure 11.2. Price for AHF in IMSS public procurement and purchases (MXN per unit)

Notes: Prices in contracts following consolidated tenders are shown under "Central". Dates correspond to the award date for each contract. Prices above MXN 3 000 a unit are excluded for presentational purposes. Only 2008 tenders for contracts running in 2009 shown in the chart.

Source: OECD analysis of IMSS contract and emergency purchase data.

Until 2012, central tenders for AHF were organised in lots corresponding to two or three geographical zones. As Table 11.1 shows, this strategy resulted in IMSS receiving two or three bids and splitting the overall requirements between two to three suppliers for each zone. After 2014 and the introduction of IMSS central tenders, one out of the two remaining bidders won. Since November 2015, this supplier has become the sole bidder in the central or consolidated tenders.

Table 11.1. Characteristics of IMSS tenders for the acquisition of AHF

Contract issue	Tender cover	Bids	Winners	Offers (Brands)	Characteristics
Dec 2008	Central	n/a	2	Zone 1 – Supplier A* Zone 1 – Supplier F* Zone 2 – Supplier D* Zone 2 – Supplier E*	International direct award 2 zones
Oct 2009	Central	n/a	2	Zone 1 – Supplier A* Zone 1 – Supplier F* Zone 2 – Supplier E* Zone 2 – Supplier D*	International public tender 2 zones
Nov 2009	Local	n/a	1	Supplier E	National direct award
Dec 2009	Local	n/a	1	Supplier D	National direct award
Dec 2010	Local	n/a	1	Supplier A	National public tender
Nov 2011	Central	2 2 2	1 1 1	Zone 1 – Supplier A (2) Zone 1 – Supplier D (3)* Zone 2 – Supplier A (3) Zone 2 – Supplier B (3)* Zone 3 – Supplier A (2)*	International public tender 3 zones
		2	1	Zone 3 – Supplier A (2)	
Dec 2011	Local	n/a	1	Supplier E	International direct award
Apr 2012	Local	n/a	1	Supplier G	International public tender
Jan 2012	Local	n/a	1	Supplier H	National direct award
May 2012	Local	n/a	1	Supplier H	National direct award
Nov 2012	Central	3	1	Zone 1 – Supplier A (5)* Zone 1 – Supplier B (2) Zone 1 – Supplier C (4) Zone 2 – Supplier A (5) Zone 2 – Supplier B (2)	International public tender 3 zones
		3	1	Zone 2 – Supplier C (4)* Zone 3 – Supplier A (3) Zone 3 – Supplier B (2)* Zone 3 – Supplier C (4)	
Dec 2013	Local	n/a	1	Supplier I	International direct award
Oct 2013	Local	n/a	1	Supplier D	National direct award
Dec 2013	Central	2	2	Supplier B (6)* Supplier C (3)*	International public tender
Jul 2014	Local	n/a	1	Supplier J	National direct award
Dec 2014	Central	2	1	Supplier B (6)* Supplier A (3)	International Public tender
Mar 2015	Local	n/a	1	Supplier K	National direct award
Sep 2015	Central	2	1	Supplier B (7)* Supplier A (1)	International public tender
Nov 2015	Consolidated	1	1	Supplier B (8) *	International public tender
Sep 2016	Central	1	1	Supplier B (8)*	International public tender
Dec 2016	Central	1	1	Supplier B (12)*	International public tender

Note: Dates correspond to the award date for each contract. Only 2008 tenders for contracts running in 2009 shown in the table. Direct awards are shown in italics. * indicates the winning bid.

Source: OECD analysis of IMSS contract data and tender files posted on SFP's CompraNet platform.

IMSS market research, such as a study of past central and local tenders and comparisons with purchases from other public bodies and the private market, can provide further information as to possible further savings. These could be achieved, for example, by varying the degree of centralisation of purchases or encouraging more participation, such as using lots to allow smaller providers to participate successfully in its tenders.

11.2. Generic medicines: Diclofenac sodium

Diclofenac is a nonsteroidal anti-inflammatory drug (NSAID). It is used to relieve pain, inflammation, swelling and joint stiffness caused by conditions such as gout, nonradiographic axial spondyloarthritis, rheumatic diseases, joint damage, osteoarthritis, and back pain.

In the period 2013-2016, diclofenac was one of IMSS's top-10 most-purchased medicines by volume. In the years 2009-2016, IMSS sourced diclofenac in different dosages and formulations:8

- 1. 100 mg capsules or tablets, packs of 20;
- 2. vials of 75 mg injectable solution;
- 3. droppers of 5 ml or 15 ml ophthalmic solution containing 1 mg diclofenac for each

This section focuses on IMSS procurement of diclofenac capsules, as they account for the largest volume share of purchases.

As shown in Figure 11.3, IMSS had already held centralised procurement procedures for diclofenac capsules as part of its 2009 requirements. In late 2008, central tenders aggregating the requirement of IMSS delegations were organised for contracts covering 2009 needs; in late 2009 for contracts covering supply until the end of 2011; in late 2011 for contracts covering supply until the end of 2012; and in early 2013 for 2013 purchases. In addition, local tenders were organised in several delegations in late 2010 and 2011 and throughout the first half of 2013, while central contracts were still in force.

Since late 2013, diclofenac capsules have been exclusively sourced through international consolidated tenders, with annual contracts covering the needs for the period 2014-2017. Aggregating the requirements of various public bodies during this period has led to a 9% increase in average purchased volumes⁹ compared to centralised tenders in the period before 2013 and compensated for the drop in IMSS requirements by increasing IMSS volumes by 22% in 2013-2016.

As shown in Figure 11.3, nearly all local tenders resulted in prices to delegations that were higher or significantly higher than those achieved by IMSS central procurement, 10 coinciding with greatly reduced demand and direct contract awards.

For the period 2009-2011, when direct comparisons are possible, contracts signed locally by delegations had - on average - unit prices 27% higher than those of contracts signed centrally by IMSS. This gap widened further in 2013 (when comparing 2013 local contracts with the February 2013 central tender), although this was driven by prices for an outlier delegation's purchases.

□ Qo(C) □ P(L) Qm(L) Qm(C) Q(L) Q(C) ▲ P(C) Millions MXN per pack 70 8.0 60 7.0 50 6.0 40 5.0 4.0 30 3.0 20 2.0 10 1.0 0 0.0 Oct Sep Dec Dec Nov Dec Jan Feb Feb Mar Jun Dec Dec Dec Sep Apr 2008 2009 2011 2014 | 2015 | 2016

Figure 11.3. Purchase volumes and unit prices for diclofenac capsules in IMSS public procurement

Notes: Q - purchased volumes; Qm - maximum volumes specified in the tender; Qo - quantity requested by participants in the consolidated tenders other than IMSS; P - price. (C) and (L) respectively denote tenders run centrally (including consolidated tenders) and locally. If different prices are quoted for split contract awards, only the lowest price is shown. Dates correspond to the award date for each contract. Cancelled contracts are excluded. Only 2008 tenders for contracts running in 2009 are shown in the chart. Source: OECD analysis of IMSS contract data.

The difference in prices found throughout the period *implies* potential lost savings for IMSS. For example, if all 2013 contracts made through a direct-award tender were made under the central IMSS contract, IMSS could have saved MXN 1.1 million on a single product and one year only.

Participation in the calls for tenders for the supply of diclofenac in 2012 and 2013 each resulted in three submitted offers. The winning bid, put forward by the same supplier in both years, 11 bundled together several brands, while the losing offers included only one brand each. With the introduction of consolidated procurement, starting with the 2013 exercise, annual tenders resulted in only one offer – from the winner of 2012 and 2013's tenders - which again bundled together multiple brands. A review of the reasons behind this supply-side reduction and whether it is linked with the aggregation of requirements in consolidated tenders may permit IMSS market research to recommend alternative means of organising the annual diclofenac procurement to promote more participants in the corresponding tenders.

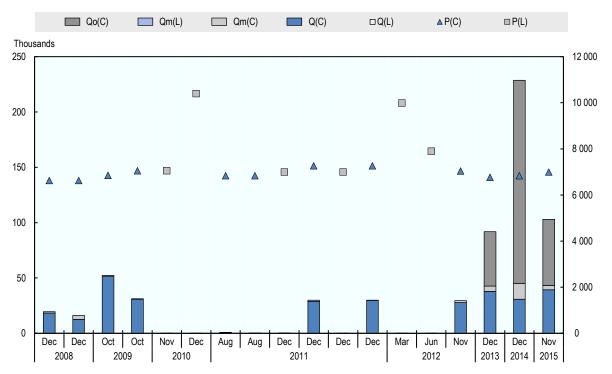
11.3. Generic medicines: Immunoglobulin G

Immunoglobulin G is a natural substance in the body, an antibody that helps combat pathogens. For patients suffering from immunosuppression, immunoglobulin constitutes an essential therapy.

Immunoglobulin is an expensive medicine and IMSS purchases different types, both those made from human and animal plasma. They are not necessarily substitutable, as not every formulation is appropriate for all treatments. Non-modified immunoglobulin G, the focus of this section, is a medicine derived from human plasma; 12 it is not under patent.

Figure 11.4 shows the pattern of IMSS procurement of immunoglobulin G in 2009-2016. The price secured by IMSS for its purchases through local and central tenders has been around MXN 7 000 for each item (with the exception of two significantly higher-priced small-volume purchases).

Figure 11.4. Purchase volumes and unit prices for immunoglobulin G capsules in IMSS public procurement



Notes: Q – purchased volumes; Qm – maximum volumes specified in the tender; Qo – quantity requested by participants in the consolidated tenders other than IMSS; P - price. (C) and (L) respectively denote tenders run centrally (including consolidated tenders) and locally. If different prices are quoted for split contract awards, only the lowest price is shown. Dates correspond to the award date for each contract. Cancelled contracts are excluded. Only 2008 tenders for contracts running in 2009 are shown in the chart. The respective volumes and prices for two cancelled contracts are not shown.

Source: OECD analysis of IMSS contract data.

As explained in Box 3.1, IMSS delegations sometimes make use of provisions in the POBALINES that allow them to make direct purchases to cover their needs outside the normal tendering processes (subject to certain limitations).¹³ Figure 11.5 compares the

prices achieved through IMSS public procurement and those for IMSS emergency purchases. It shows that there are cases where direct purchases by IMSS local units achieved lower prices than those after a public tender. While there may be plausible justifications for this, ¹⁴ local procurement or emergency purchases at prices lower than those of central contracts should be reviewed and assessed by IMSS and its market-research unit. Aspects of the design of IMSS tenders for immunoglobulin may need to be altered.

There has also been an apparent decrease in the number of participants in IMSS central and consolidated tenders for immunoglobulin. IMSS central tenders in 2011-2012 attracted three bids, whereas tenders in late-2014 and late-2015 attracted a sole bidder. As noted elsewhere in this report (see Sections 3.1 and 3.2), IMSS should monitor supply-side concentration, and ascertain, for example, in this case, if its procurement practice of only purchasing immunoglobulin after consolidated tenders has had an adverse impact on supply-side concentration or on tender participation, and consequently procurement outcomes (for example, price offers).

▲ Central procurement o Emergency purchases □ Local procurement 12 000 10 000 0 0 0 8 000 0 000 0 6 000 00 0 0 4 000 2 000 24-12-2008 24-12-2009 24-12-2010 24-12-2011 24-12-2012 24-12-2013 24-12-2014 24-12-2015 24-12-2016

Figure 11.5. Price for immunoglobulin G in IMSS public procurement and purchases (MXN per pack)

Notes: Prices in contracts following consolidated tenders are shown under "Central". Dates correspond to the award date for each contract. Only 2008 tenders for contracts running in 2009 shown in the chart. Source: OECD analysis of IMSS contract and purchases (emergentes) data.

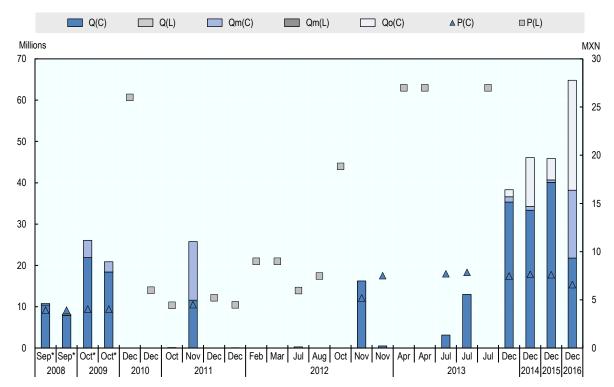
11.4. Generic medicines: Metformin

Metformin is an easily administered medication used to control type 2 diabetes; it is taken orally. Relatively less expensive compared to other diabetes medication, it is one of IMSS's

most-purchased drugs.¹⁵ As a generic medicine, metformin is produced by a number of laboratories in Mexico.16

Figure 11.6 shows IMSS purchases of metformin and the corresponding prices following local, central and, since December 2013, consolidated procurement procedures. Over the period, there has been a substantial increase in the volumes requested and purchased by IMSS, particularly during the period 2013-2016. Unit prices showed a slight upward trend until a sharp increase in late 2012 led to a new level of equilibrium prices that persisted until the December 2016 consolidated tenders. Consistent with the findings in other case studies discussed in this section, prices for local procurement are typically higher (and, in some cases, significantly higher) than those achieved by central procurement.

Figure 11.6. Purchase volumes and unit prices for metformin tablets in IMSS public procurement



Notes: Q - purchased volumes; Qm - maximum volumes specified in the tender; Qo - quantity requested by participants in the consolidated tenders other than IMSS; P - price. (C) and (L) respectively denote tenders run centrally (including consolidated tenders) and locally. If different prices are quoted for split contract awards, only the lowest price is shown. Dates correspond to the award date for each contract. Cancelled contracts are excluded. Only 2008 tenders for contracts running in 2009 shown in the chart. Source: OECD analysis of IMSS contract data.

A more detailed account of the characteristics of offers and winning bids in IMSS central tenders for metformin is set out in Table 11.2. A number of trends among suppliers of metformin to IMSS are discernible in the data, even if it is not possible to substantiate whether these were directly influenced by IMSS procurement strategy or were the result of exogenous factors.

The first is the reduction in the number of offers submitted to IMSS tenders, from four offers in 2011-2012 to two in 2013-2014. This drop in participating bidders coincided with IMSS switching to consolidated tenders, and with price increases for IMSS procurement. While causality cannot be established, ¹⁷ IMSS may need to consider whether consolidating requirements has had an adverse effect on participation in tenders and, consequently, on the prices it obtains.

Second, manufacturers have participated in several IMSS tenders and were awarded parts of the supply contracts. As explained in Section 3.4, it may be desirable for IMSS to explore ways for laboratories to be more directly engaged with its procurement as a means to promote competition in its tenders.

Third, in line with the 2011 OECD recommendation, in more recent tenders split awards more often follow a 80/20 ratio (as opposed to the previous 60/40 split). This does not appear to be consistently done, however; for example, see tender T78-2015 in the table below.

Table 11.2. Bidders and winners in IMSS central tenders for metformin

Tender-Year	Bidder	Brands	Common brands	Volume allocation	Lab offer/winner
00641251-022-2011	Supplier A	n/a		60	
	Supplier C	1	n/a	40	Х
	*	n/a	n/a		
00641321-015-2011	Supplier A	n/a		60	
	Supplier D	1	n/a	40	X
	*	n/a	n/a		
T56-2011	Supplier A	6			
	Supplier G	1	0		
	Supplier F	1	0	70	Х
	Supplier E	1	0		
	Supplier H	1	0	30	
T64-2012	Supplier B	4			
	Supplier A	6	3		
	Supplier E	1	1		
	Supplier C	1	0	100	X
N23-2013	Supplier A	3		60	
	Supplier B	3	1	40	
T51-2013	Supplier A	10		80	
	Supplier B	7	7	20	
T60-2014	Supplier A	9		80	
	Supplier B	9	7	20	
T78-2015	Supplier A	10		60	
	Supplier D	1	1	40	Х
E42-2016	Supplier A	12		100	
	Supplier E	8	8		

Notes: Dates correspond to the award date for each contract. Common brands are reported in relation to the brands in the offer from the first supplier listed within each tender. * denotes other bids are unknown. Source: OECD analysis of IMSS contract data and tender files posted on SFP's CompraNet platform.

11.5. Generic medicines: Paracetamol

Paracetamol, also known as acetaminophen, is used to treat mild to moderate pain and fever. In terms of volume, it is one of IMSS's most-commonly purchased medicines. Throughout the eight-year period of 2009-2016, IMSS sourced paracetamol in various dosages and formulations, namely:

- 1. 500 mg tablets, in particular, 10-tablet packs;
- 2. 15 ml oral-solution containers (each ml containing 100 mg of active substance); and
- 3. 300 mg suppositories, in particular, packs of 3.
- 4. These products are all included in IMSS's *Cuadro Básico*, ¹⁸ along with a small number of variations. This section focuses on IMSS procurement of tablets, which constitute the vast majority of IMSS paracetamol purchases in the period 2009-2016.

Consistent with the move to consolidate its delegations' requirements – as set out in Section 3.1 – IMSS had already centralised much of the procurement of paracetamol tablets by late 2008. As shown in Figure 11.7, with the exception of 2010, 19 IMSS organised a centralised procurement of paracetamol in November/December each year (or, on one occasion, the beginning of the following year).

Paracetamol was part of the late-2013 procurement for 2014 needs, the first combined tendering process organised by IMSS to include other public bodies. Paracetamol has since been exclusively sourced using consolidated procurement. In the years 2014-2016, this added approximately 25% more volume to IMSS's requirements and so reinforced its buyer power.20

Centralising (within IMSS) and consolidating (among public bodies) the requirements for paracetamol and organising a single tender are in line with the 2011 OECD recommendations. Also in line with those recommendations is that all the above procurements followed an open international public tender.

Figure 11.7 shows that, in the period 2009-2013, certain IMSS delegations unilaterally procured additional volumes of paracetamol, most likely top-ups to the volumes sourced through centralised procurement. With two exceptions in 2010, all local procurement resulted in delegations paying higher or significantly higher prices than those achieved by IMSS central procurement, partly due to the much lower volumes demanded.²¹

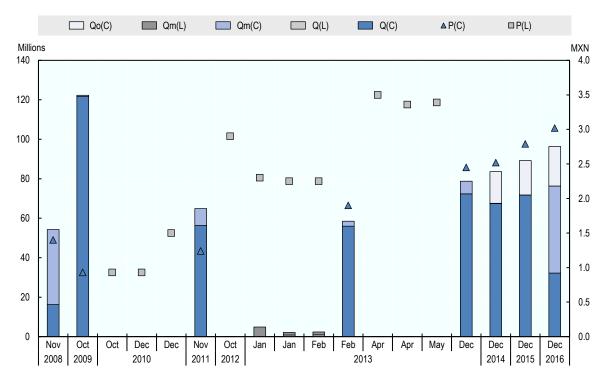


Figure 11.7. Purchase volumes and unit prices for paracetamol tablets in IMSS public procurement

Notes: Q - purchased volumes; Qm - maximum volumes specified in the tender; Qo - quantity requested by participants in the consolidated tenders other than IMSS; P - price. (C) and (L) respectively denote tenders run centrally (including consolidated tenders) and locally. If different prices are quoted for split contract awards, only the lowest price is shown. Dates correspond to the award date for each contract. Cancelled contracts are excluded. Only 2008 tenders for contracts running in 2009 are shown in the chart. The contract issued in December 2013 followed a consolidated tender run by IMSS. However, due to inconsistencies found in the various data sources reviewed, this tender is shown as a tender run centrally for IMSS requirements only. Source: OECD analysis of IMSS contract data.

Local procurement often resulting in higher prices for IMSS is seen most clearly when the same supplier wins the central and delegation contracts. Centralised and consolidated procurement have helped IMSS achieve savings. For example, in 2013, if all purchases had been made under the central IMSS contract, IMSS would have saved just under MXN 800 000 for its remaining local purchases of paracetamol tablets in a single year.²²

It is also worth noting that, while local procurement's direct effect on participation and outcomes is not evident in this case, it is more commonly associated with more restrictive tender processes, such as a national-only process or a direct award. Of the 10 procurement processes organised by IMSS delegations, 8 were national in scope and 7 were direct awards. This partly reflects the nature of those procurements, as they are often run as emergency processes to ensure continuity or security of supply.

Table 11.3 shows that, after 2011, IMSS's call for tenders for the supply of paracetamol tablets typically resulted in only one offer (which bundled together several brands) or two offers, but with always the same winner. In contrast, the contracts issued in late 2008 and late 2011 were split into zones, essentially making them regional supply contracts: the 2008 contract was awarded to two suppliers; 2011's attracted three offers. Moreover, tenders run at the delegation level were also awarded to other suppliers. Access to such systematic data along with more targeted market research may suggest that IMSS needs to trial alternative procurement specifications, including zoning, to encourage wider participation at the wholesaler/distributor or even manufacturer level.

Table 11.3. Characteristics of IMSS tenders for the acquisition of paracetamol tablets

Contract issue date	Tender cover	Offers (Brands)	Origin	Characteristics
Nov 2008	Central	Zone 1 – Supplier B (1)* Zone 2 – Supplier A (5)* Zone 3 – Supplier A (5)*	Mexico	International open tender 3 zones
Nov 2011	Central	Supplier A (5)* Supplier C (1) Supplier D (1)	Mexico	International open tender (auction) 2 zones
Feb 2013	Local	Supplier A (9)*	Mexico	International open tender
Feb 2013	Central	Supplier A (8)* Supplier E (1)	Mexico	International open tender
Dec 2013	Central	Supplier A (9)*	Mexico	International open tender
Dec 2014	Consolidated	Supplier A (9)*	Mexico	International open tender
Dec 2015	Consolidated	Supplier A (7)* Supplier F (1)	Mexico	International open tender
Dec 2016	Consolidated	Supplier A (8)*	Mexico	International open tender

Note: Dates correspond to the award date for each contract. Only 2008 tenders for contracts running in 2009 shown in the table. Local tenders shown in italics. * indicates the winning bid.

Source: OECD analysis of IMSS contract data and tender files posted on SFP's CompraNet platform.

Figure 11.8 shows emergency direct purchases of paracetamol tablets by IMSS medical units. With the exception of a few instances, these orders were placed at a (sometimes significant) premium to the price achieved through tenders, particularly central tenders.

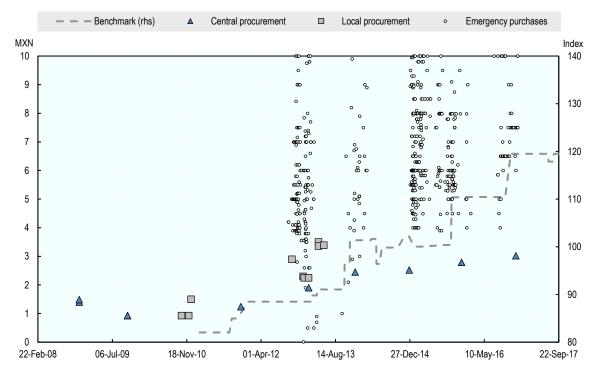


Figure 11.8. Price for paracetamol tablets in IMSS public procurement and purchases

Note: Prices in contracts following consolidated tenders are shown under Central. Dates correspond to the award date for each contract. Prices above MXN 10 per unit are excluded for presentational purposes. Only 2008 tenders for contracts running in 2009 are shown in the chart.

Source: OECD analysis of IMSS contract and emergency purchase data. Price index constructed on the basis of retail price data collected by INEGI for Bristol-Myers Squibb's Tempra sold in the Metropolitan Area of Mexico City (1 January 2011 = 100).

While these purchases outside the normal tender process account for a minimal share of IMSS acquisitions, the price differential emphasises the value of carefully accounting for and satisfying future requirements in the context of centralised tenders. This will ensure higher savings for IMSS through methods such as fighting bid rigging, increasing participation and competition in tenders, and promoting economies of scale for suppliers.

11.6. Generic medicines: Ranitidine

Ranitidine is medication that blocks production of stomach acid. It is used to treat intestinal and stomach ulcers, gastroesophageal reflux disease (GERD), as well as to heal acid-related damage to the lining of the oesophagus.

IMSS purchases ranitidine in different dosages and formulations:²³

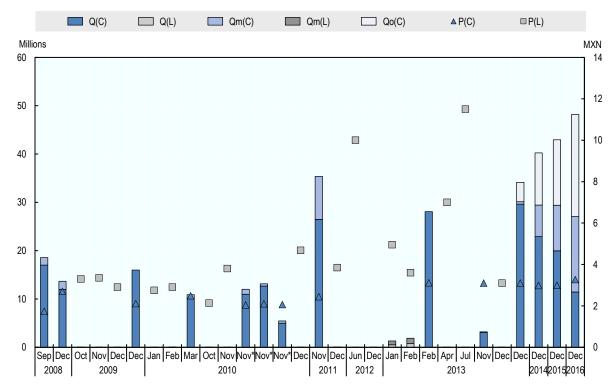
- 1. 150 mg tablets or capsules, packs of 20;
- 2. 50 mg injectable solution, packs of 5, 2 ml or 5 ml vials; and
- 3. 150 mg ranitidine syrup, 10 ml to 200 ml bottles.

In 2010 and in the period 2013-2015, ranitidine tablets – reviewed in this section – were one of the 10 most-purchased medicines by IMSS, in terms of volume.

As shown in Figure 11.9, IMSS was already running central tenders for the procurement of ranitidine capsules in late 2008. Local tenders were organised in several delegations in late 2009 and throughout the period 2010-2013, while central contracts were still in force. Since late 2013 and the first extensive consolidated tender exercise, ranitidine tablets have been exclusively sourced through consolidated procurements.

The majority of local procurements resulted in IMSS delegations paying higher or significantly higher prices than those achieved by IMSS central procurements. For example, the three local contracts awarded by IMSS delegations²⁴ after public tenders in 2013 (the last year before the introduction of consolidated procurement) had average unit prices 25% higher than the two central contracts signed by IMSS that same year. In the period 2008-2011, central contracts had unit prices that were – on average – 32.5% lower than in contracts signed by delegations. This possibly reflects the fact that the majority of local tenders were direct awards to Mexican suppliers, whereas most central procurement followed international (or FTA) public tenders.

Figure 11.9. Purchase volumes and unit prices for ranitidine tablets in IMSS public procurement



Notes: Q - purchased volumes; Qm - maximum volumes specified in the tender; Qo - quantity requested by participants in the consolidated tenders other than IMSS; P - price. (C) and (L) respectively denote tenders run centrally (including consolidated tenders) and locally. If different prices are quoted for split contract awards, only the lowest price is shown. Dates correspond to the award date for each contract. Cancelled contracts are excluded. Only 2008 tenders for contracts running in 2009 are shown in the chart. The price for a contract issued in December 2012 (Tabasco, MXN 45.7) is excluded from the chart for presentational reasons. Source: OECD analysis of IMSS contract data.

The analysis of the price in IMSS contracts for the supply of ranitidine reveals that centralised and consolidated procurement have helped IMSS achieve savings. For example,

if all local purchases were made under central IMSS contracts, additional savings for 2009-2013 would add up to MXN 1.9 million for those remaining local purchases.

In terms of participation, each IMSS call for tender for the supply of ranitidine in the period 2012-2017 resulted in offers from three or four bidders, often including different brands in their offers. With the introduction of consolidated procurement, starting with procurement for 2014, the winning offer bundled together at least two brands. The following table summarises the specificities of tender participation for different years for central or consolidated procurement. Other than aggregating capacities from several laboratories, higher volume requirements do not appear to have impacted negatively in participation in IMSS tenders in this case.

Year of supply No. of bidders No. of winners Multiple brands (winners) Split supply 2012 2 80/20 nο 2013 3 100 no 3 2013 100 no 2014 3 ves 100 3 2015 yes 100 2016 3 2 60/40 ves 2017 3 2 80/20

yes

Table 11.4. Bidders and winners in IMSS central and consolidated tenders for ranitidine

Source: OECD analysis of IMSS contract data and tender files posted on SFP's CompraNet platform.

11.7. Patented medicines: Celecoxib and imatinib

The effect on the prices after the entry of new generics can be seen in the examples considered in this section. (This is true even in the presence of only potential or transient competition; for example, the case of imatinib reviewed in Section 11.7.2). IMSS should make every effort to maximise the benefits it can reap from patent expiration.

As recommended by the OECD in 2011, IMSS should closely monitor patent validity and expiration. The organisation does request that the IMPI registration is submitted and occasionally notes patent expiration date in tender preparation documents, but it should make this a systemic requirement across all tenders. Ensuring uniform information is available – for example, by means of a centralised patent database – would help this.

Similarly, IMSS should anticipate the entry of new generic products onto the market and adjust its procurement schedule accordingly. In the case of celecoxib, IMSS purchased larger quantities in December 2015 (before generic entry) than in October 2016 (after generic entry). While there may be timing reasons for this, IMSS should consider patents as a factor when setting procurement strategy.

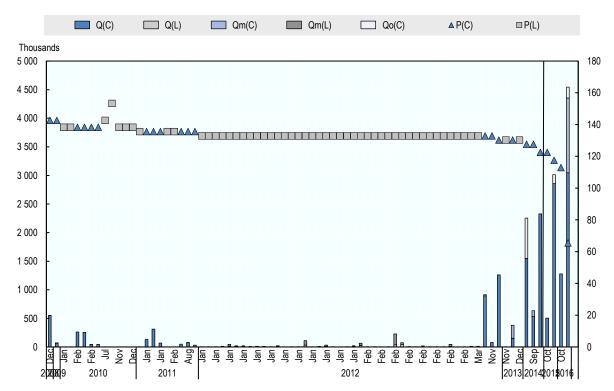
To the extent it can support new entry, IMSS will also benefit from liaising with COFEPRIS to encourage easy and timely market entry of new generics. For example, new entry and authorisations for celecoxib took 18 and 25 months for first and second generic entrants. The longer the period between patent expiration and the authorisation of new generic alternatives the longer the delay in IMSS being able to realise savings from lower unit prices.²⁵

11.7.1. Celecoxib

Celecoxib is an anti-rheumatic and analgesic that has been available in the Mexican market since at least 2001. It is approved for the treatment of patients suffering from rheumatism and osteoarthritis.

COFEPRIS allows for dosages of 100mg or 200 mg tablets sold in boxes of 10, 20 or 40 tablets. These formulations and packs are also found in IMSS Cuadro Básico in the relevant period, ²⁶ with the two main variations being a 10-dose pack of 200 mg tablets or 20-dose pack of 100 mg tablets. This section focuses on the former, which is bought in greater quantities by IMSS, although the trends and findings are similar for both.²⁷

Figure 11.10. Purchase volumes and unit prices for celecoxib tablets in IMSS public procurement



Notes: Q - purchased volumes; Qm - maximum volumes specified in the tender; Qo - quantity requested by participants in the consolidated tenders other than IMSS; P - price. (C) and (L) respectively denote tenders run centrally (including consolidated tenders) and locally. If different prices are quoted for split contract awards, only the lowest price is shown. Dates correspond to the award date for each contract. Cancelled contracts are excluded. Only 2008 tenders for contracts running in 2009 are shown in the chart. Vertical line indicates patent expiration.

Source: OECD analysis of IMSS contract data.

Until its expiry in late November 2014, celecoxib's patent²⁸ was held by Pfizer and the drug's price was negotiated by CCNPMIS on behalf of all public procurers.²⁹ This is reflected in Figure 11.10, which shows the negotiated price used across all IMSS contracts³⁰ (and the evolution of this price in 2008-2014).³¹

IMSS procurement at the time of and following the patent expiration is illustrated in Table 11.5. From the patent expiry, it took over 18 months for another generic to obtain the

necessary market authorisation. A slight price decrease was seen in anticipation of generic celecoxib entry, but it was not until the December 2016 consolidated tender that the full effect was seen when it fell just under 50% compared to the late-2014 price. This fall was likely reinforced by IMSS's decision to procure celecoxib through a consolidated tender. However, in the time between celecoxib's patent expiry and an alternative generic version becoming available, IMSS continued to purchase significant volumes of the drug.

Table 11.5. Characteristics of central IMSS tenders for celecoxib tablets, 2014-2016

Contract issue date	Tender	Under patent	Lab manufacturer	Volume ('000 items)	Price (MXN)
Jan 2014	195-2014*	Yes	Pfizer	1 549	127.57
Sep 2014	140-2014	Yes	Pfizer	635	127.57
Dec 2014	177-2014	Yes	Pfizer	2 326	122.47
Oct 2015	T95-2015	No	Pfizer	505	122.47
Dec 2015	1105-2015*	No	Pfizer	3 427	117.57
Jul 2016		Ultra Labs	obtains authorisation fo	r a celecoxib generic	
Oct 2016	E25-2016	No	Ultra (80%)	1 021	112.93
		No	Pfizer (20%)	255	114.46
Oct 2016		Pisa Labs obtains authorisation for a celecoxib generic			
Dec 2016	E42-2016*	No	Pfizer	4 352	65.44

Note: * denotes consolidated tenders.

Source: OECD analysis of IMSS contract data and tender files posted on SFP's CompraNet platform.

11.7.2. Imatinib

Imatinib is medication used in cancer treatment,³² for which Novartis held the original patent.33 IMSS's imatinib purchase history is shown in Figure 11.11 and Table 11.6. The CCNPMIS negotiated patent price is shown in Figure 11.11, applied across all IMSS contracts until 2013.34

Q(C) Q(L) Qm(C) Qm(L) Qo(C) ▲ P(C) □ P(L) 70 000 14 000 60 000 12 000 10 000 50 000 40 000 8 000 30 000 6 000 20 000 4 000 10 000 2 000

Figure 11.11. Purchase volumes and unit prices for imatinib tablets in IMSS public procurement

Notes: Q - purchased volumes; Qm - maximum volumes specified in the tender; Qo - quantity requested by participants in the consolidated tenders other than IMSS; P - price. (C) and (L) respectively denote tenders run centrally (including consolidated tenders) and locally. If different prices are quoted for split contract awards, only the lowest price is shown. Dates correspond to the award date for each contract. Cancelled contracts are excluded. Only 2008 tenders for contracts running in 2009 are shown in the chart. Source: OECD analysis of IMSS contract data.

Table 11.6. Characteristics of central IMSS tenders for imatinib tablets, 2014-2016

Contract issue date	Tender	Distributor / Lab manufacturer	Other bidders	Volume ('000 items)	Price (MXN)
Mar 2012	I11-2012	Fármacos Especializados / Novartis	n/a	34 964	11 466
Dec 2012	1111-2012	Fármacos Especializados / Novartis	n/a	43 737	11 466
Jul 2013	T19-2013	Fármacos Especializados / Novartis	n/a	28 746	11 466
Dec 2013	T51-2013*	Fármacos Especializados / Novartis	n/a	54 433	11 465
Dec 2014	T60-2014*	Distribuidora Internacional Medicamentos / Pisa	1	50 442	3 439
Dec 2015	I105- 2015*	Fármacos Especializados / Novartis	n/a	51 467	3 439
Dec 2016	E42-2016*	Fármacos Especializados / Novartis	1 (excluded)	50 408	3 439

Note: * denotes consolidated tenders.

Source: OECD analysis of IMSS contract data and tender files posted on SFP's CompraNet platform

The 2014 consolidated tender (for supply in 2015) attracted an offer for a new generic in addition to that of the branded innovator drug. This followed a patent expiration for some variants of the product, with Pisa Labs obtaining the necessary COFEPRIS market authorisation. The contract was awarded to the generic alternative, for which the price offer was more than three times lower than that agreed by CCNPMIS the previous year.

Following a legal challenge by Novartis, the generic's market authorisation was not renewed. In the consolidated tenders of 2015 and 2016, only a Novartis product was considered: in the former, it was included in the CCNPMIS list of single-source medicines, and in the latter, the alternative offer submitted was found not to be compliant with requirements.35

The lower price agreed in 2014 continued in the 2015 and 2016 tenders. With an average purchased quantity of 47 500 units a year, ³⁶ IMSS's average savings from this significantly reduced price amounted to MXN 381 million a year or MXN 8 025.4 a unit. These savings highlight the importance of competition or (credible) threat of entry by competitors, and in turn, the importance of IMSS monitoring market developments, including relevant national and international litigation.³⁷

11.8. Medical material: Gauzes

Surgical gauze was IMSS's third most-purchased medical material during the 2009-2016 period. The market authorisation (registro sanitario) for different types of gauze includes details on their thickness, material, and sheets per gauze. During the period under consideration, IMSS procured two variants of packs of 200 pieces of gauze: one with 8 sheets per gauze (until 2013)³⁸ and one with 12 sheets per gauze (from April 2013 onwards).39

The evaluation of offers in tenders for medical materials can reveal significant differences between different products. For this reason, contrary to medicines where specifying the active ingredient and concentration is enough to identify substitutable generics, the required product specifications for medical material are far more detailed. For gauze, product specification is judged on the basis of its dimensions, material, number of sheets per gauze, weave, and whether the gauze is sterilised or not. IMSS also specifies a minimum weight per square metre as an indicator of thread thickness or quality.

However, these detailed characteristics may still not fully account for potential quality differences between the products offered in IMSS tenders. 40 Therefore, in such cases, it may be appropriate to consider alternative evaluation criteria, for example, using a pointbased criterion instead of the binary one.

Figure 11.12 shows the history of IMSS gauze procurement. Until 2011, as with the procurement of other medical materials, IMSS organised centralised regional tenders for gauze. These were run centrally by IMSS as two or three lots, which bundled together the requirements of a number of delegations and UMAEs (see Table 11.7). Interested bidders could submit (identical or different) offers for one or more lots (or zones). From 2011 onwards, IMSS centralised its procurement of gauze, which since 2013, has been procured in consolidated tenders.

During the reference period, 40 local procurement procedures for gauze were held. Delegations and UMAEs have generally made far fewer purchases since the instigation of the consolidated tenders, with the exception of Tabasco whose higher prices are seen in Figure 11.12.

Throughout the period, prices paid by IMSS for a pack of 200 pieces of gauze have oscillated around MXN 50. Prices achieved through central or centralised regional purchases have typically been lower than the average locally procured prices, even when procurement by Tabasco is excluded. Given this relative price stability, a multi-year supply contract for gauze may be a potential strategy to allow IMSS to extract additional savings, by offering a guaranteed contract to the winning bidder.

Q(C) □ Q(L) Qm(C) ____ Qm(L) Qo(C) ▲ P(C) □ P(L) Millions MXN 4 000 250 3 500 200 3 000 2 500 150 2 000 100 1 500 1 000 50 500 0 0 Jul Oct Aug Feb ş Sep ş

Figure 11.12. Purchase volumes and unit prices for gauzes in IMSS public procurement

Notes: Q - purchased volumes; Qm - maximum volumes specified in the tender; Qo - quantity requested by participants in the consolidated tenders other than IMSS; P - price. (C) and (L) respectively denote tenders run centrally (including consolidated tenders) and locally. If different prices are quoted for split contract awards, only the lowest price is shown. Dates correspond to the award date for each contract. Only 2008 tenders for contracts running in 2009 shown in the chart. * denotes tenders with two or three lots of geographical zones; corresponding volumes are attributed to local procurement. Vertical line at the beginning of 2014 marks the change in product specification in IMSS tenders. Only 2008 tenders for contracts running in 2009 are shown in

2012

2014

2015

2011

Source: OECD analysis of IMSS contract data.

2010

The changes in the design of IMSS central tenders for gauze are seen in Table 11.7, which shows the transition from centralised regional tenders to central and then consolidated tenders. While this switch was initially accompanied by an increase in the number of offers received (i.e. centralisation worked as an incentive for more potential suppliers to submit bids), this trend was later reversed and the most recent tenders received only two bids. Decreasing participation might be an indication that IMSS procurement strategy needs to be reviewed or revised as higher volume requirements are perhaps proving an obstacle to potential providers or losing bidders are finding it difficult to remain active in the gauzesupply market due to lumpy demand. The potential impact of a smaller number of bidders in tender outcomes is seen in the prices for tender N20-2011: the prices for Zone 2, which attracted fewer bids, were higher than for the other two zones (which was not the case previously).

Table 11.7. Winners in IMSS central tenders for gauze

Tender	Year	Contract start	Contract end	Zones	Delegations	Winner	Allocation	Unit price	Losing bids
00641234-020	2008	Jan 2009	Dec 2009	Zone 1	30 (South)	Supplier C	60%	47.7	n/a
						Supplier J	40%	47.8	
				Zone 2	30 (North)	Supplier B	60%	46.6	n/a
						Supplier A	40%	47.8	
00641321-019	2009	Jan 2010	Dec 2010	Zone 1	30 (South)	Supplier H	100%	47.2	n/a
				Zone 2	30 (North)	Supplier H	60%	49.7	n/a
						Supplier I	40%	50.0	
SA-I7-11	2011	Aug 2011	Dec 2011	Zone 1	23 (Centre)	Supplier B	60%	70.5	n/a
						Supplier D	40%	71.1	
				Zone 2	19 (North)	Supplier A	60%	68.9	n/a
						Supplier D	40%	71.1	
				Zone 3	18 (South)	Supplier C	60%	70.0	n/a
						Supplier D	40%	71.1	
N20-2011	2011	Aug 2011	Dec 2011	Zone 1	23 (Centre)	Supplier E	60%	57.0	3
						Supplier F	40%	58.0	
				Zone 2	19 (North)	Supplier B	60%	74.5	1
						Supplier C	40%	74.6	
				Zone 3	18 (South)	Supplier E	60%	57.0	3
						Supplier F	40%	58.0	
N62-2011	2011	Dec 2011	Dec 2012			Supplier A	50%	55.1	4
						Supplier K	30%	55.8	
						Supplier L	20%	56.4	
N70-2012	2012	Dec 2012	Dec 2013			Supplier A	60%	47.8	5
						Supplier C	40%	47.9	
N50-2013*	2013	Dec 2013	Dec 2015			Supplier A	80%	43.1	5
						Supplier M	20%	44.6	
SA-T5-2015	2015	Jan 2015	Dec 2015			Supplier A	100%	49.4	
O-N6-2015*	2015	Mar 2015	Dec 2015			Supplier A	80%	46.9	3
						Supplier B	20%	46.3	
N57-2015*	2015	Nov 2015	Dec 2016			Supplier A	80%	47.5	2
						Supplier G	20%	47.8	
E28-2016	2016	Oct 2016	Dec 2016			Supplier G	100%	52.5	1
E53-2016*	2016	Dec 2016	Dec 2017			Supplier A	100%	48.3	1

Note: Only 2008 tenders for contracts running in 2009 shown in the table.

Source: OECD analysis of IMSS contract data and tender files posted on SFP's CompraNet platform.

The history of purchases of gauze in Table 10.5 emphasises the importance of market research - to review, for example, the impact of past tender design choices, to consider tender outcomes, to investigate the reasons for any changes to participation. As discussed in Section 7.1.2, using additional sources and information may provide useful insights and better inform tender design or elements of it. For example, the cost of cotton – the main raw input for the manufacture of gauzes - may explain price developments or provide useful information on likely future price developments for gauzes (see Figure 11.13).

^{*} denotes consolidated tenders.

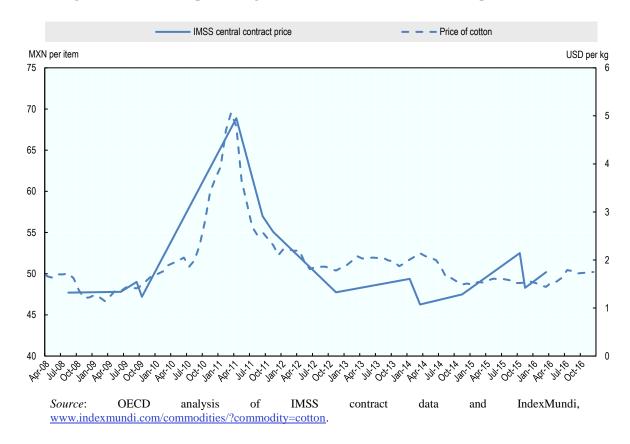


Figure 11.13. Purchase prices for gauzes in IMSS central tenders and the price for cotton

11.9. Medical material: Infusion sets

Disposable clinical infusion sets are venous-access kits with a plastic spike, air vent and needle. 41 They were one of IMSS's most-purchased medical materials between 2009 and 2016.

Unusually among its procurement strategies, 42 IMSS runs centralised local tenders for infusion sets, in which tenders are organised and implemented centrally by IMSS but interested bidders can submit (identical or different) offers for each of the participating delegations or UMAEs. IMSS has continued with this strategy even after the introduction of consolidated tenders in 2013 allowed suppliers to continue bidding to supply infusion sets to each IMSS delegation and UMAE separately.⁴³

The effect of this procurement strategy is shown in Figure 11.14, which follows the evolution of average prices for infusion sets by level of aggregation (local and central/consolidated). The fact that suppliers can mix-and-match means that prices obtained after central or consolidated tenders are generally not dissimilar to those for local procurement.⁴⁴ Moreover, since 2011, the same two suppliers have bid and won the corresponding contracts.

Centralised local tenders may be appropriate for the procurement of specific products. In particular, they have the potential to allow IMSS to exercise buyer power (since they effectively aggregate local requirements into a single tender), while encouraging participation (by allowing smaller suppliers to bid for parts of the supply). This approach

does come with considerable risks, however, in particular by facilitating bid-rigging schemes. As it effectively splits the requirements into 30 or more annually tendered lots, it may make collusive agreements (such as market sharing) easier to design and implement. Effective monitoring of tender outcomes is once again important in this context. Moreover, the fact that central and local tenders attract similar price offers may be an indication that this type of centralised local tenders is not delivering the outcomes and savings it potentially could.

Consolidated/Central - Local 100 90 80 70 60 50 40 30 20 10 0 2008 2009 2010 2011 2012 2013 2014 2015

Figure 11.14. Average purchase prices for infusion sets in IMSS public procurement

Notes: Both central and consolidated tenders for infusion sets allowed for price offers per delegation and UMAE. Only 2008 tenders for contracts running in 2009 are considered for the prices shown in the chart. Local tenders exclude those for one delegation that had substantially higher average prices, as follows: MXN 270 in 2012; MXN 247 in 2013; MXN 196 in 2014; MXN 217 in 2015; and MXN 221 in 2016. Source: OECD analysis of IMSS contract data.

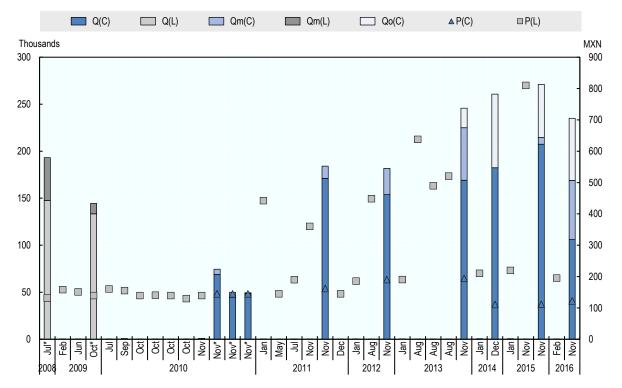
11.10. Medical material: Sutures

IMSS purchases several different types of sutures. Throughout the 2009-2016 period, it was one of the most-purchased products⁴⁵ in both local and central/consolidated tenders.

Similar to other medical materials, including, for example, gauze (see Section 11.8), at the start of the period under consideration, sutures were purchased in centralised regional tenders organised across a number of geographic zones. From 2011 onwards, IMSS further centralised its procurement of sutures, and in 2013, began procuring through consolidated tenders. After the centralisation of procurement, a small number of local procurement procedures have been held by one particular IMSS delegation and one UMAE. The corresponding prices have generally been higher or significantly higher than those IMSS

secured after its central or consolidated tenders. This is also true when locally obtained prices are compared to those offered in the context of IMSS centralised regional tenders, which suggests that the benefits of pooling together decentralised procurement also extend to regional tenders or smaller lots.

Figure 11.15. Purchase volumes and unit prices for sutures in IMSS public procurement



Notes: Q - purchased volumes; Qm - maximum volumes specified in the tender; Qo - quantity requested by participants in the consolidated tenders other than IMSS; P – price. (C) and (L) respectively denote tenders run centrally (including consolidated tenders) and locally. If different prices are quoted for split contract awards, only the lowest price is shown. Dates correspond to the award date for each contract. Only 2008 tenders for contracts running in 2009 are shown in the chart. * denotes tenders with two or three lots of geographical zones; the corresponding volumes are attributed to local procurement. Source: OECD analysis of IMSS contract data.

Table 11.8 helps illustrate the change in IMSS's approach to contract splits, in line with the 2011 OECD recommendation, and shows how the (maximum) requested volumes were split between winning bidders. The 60/40 split in the earlier years (within each zone, if applicable) was substituted by an 80/20 split in later tenders. Contract splits has also become less frequent: suture supply contracts following the 2014 and 2016 consolidated tenders were awarded to a sole provider.

Table 11.8. Split contract awards in IMSS public procurement of sutures

Tandar data	Maxim	um volume assigned	volume assigned		Volume share assigned	
Tender date	Supplier 1	Supplier 2	Supplier 3	Supplier 1	Supplier 2	Supplier 3
Jul 2008	56 895	38 010	-	60%	40%	-
	58 986	39 216	-	60%	40%	-
Oct 2009	42 648	28 645	-	60%	40%	-
	43 255	29 950	-	59%	41%	-
Nov 2010	44 666	29 778	-	60%	40%	-
Nov 2011	92 069	55 241	36 828	50%	30%	20%
Nov 2012	109 030	72 686	-	60%	40%	-
Nov 2013	179 949	44 988	-	80%	20%	-
Nov 2015	171 687	42 921	-	80%	20%	-

Note: Only 2008 tenders for contracts running in 2009 shown in the table.

Source: OECD analysis of IMSS contract data.

11.11. Other items: Paper towels

As shown in Figure 3.2, from 2012, the procurement of (certain) items other than medicines and medical material was centralised by IMSS. Of these, paper towels used for hand drying⁴⁶ is the one on which IMSS spends most annually.

Between 2009 and 2012, all IMSS procurement of paper towels was done locally: 98% of procurement procedures were national-only and 93% followed a public tender procedure. With a few exceptions, most of the prices secured by delegations were around MXN 200. This price uniformity of paper towels was – at least partly – due to the fact that two suppliers were the main providers for all IMSS delegations and UMAEs. In 2009 and 2010, they accounted for 70% (46% and 24%) and 80% (54% and 26%) of awarded volumes across delegations. In 2011, however, one supplier accounted for 99% of the volumes requested by IMSS.⁴⁷

The outcome of the different procurement processes highlights the importance of tender design, even across IMSS decentralised tenders. While the use of direct awards or restricted invitations can sometimes be justified (for the reasons outlined in Section 6.1), (higher) prices obtained often reflect this choice. Table 11.9 shows the prices paid by five IMSS delegations and UMAES for their paper-towel purchases; they are higher (in some instances, significantly higher) than the prices offered to the same delegations when they used public tender procedures for time-limited periods.⁴⁸

Table 11.9. Selected IMSS local procurement procedure for paper towels, 2009-2011

Contracting unit	Contract start date	Procedure	Supplier	Maximum volume requested	Unit price (MXN)
Delegation 1	01-Aug-09	Direct award	Supplier A	284	197.75
	01-Jan-10	Tender	Supplier B	1 458	184.99
	17-Jan-11	Tender	Supplier C	4 600	187.42
	18-Aug-11	Tender	Supplier C	4 600	181.68
Delegation 2	01-Jan-10	Tender	Supplier D	8 160	182.90
_	01-Dec-10	Restricted invitation	Supplier E	22	355.00
	02-May-11	Tender	Supplier C	4 590	183.59
	22-Sep-11	Tender	Supplier C	3 639	180.72
Delegation 3	01-Jan-10	Tender	Supplier D	5 224	187.10
•	17-Jan-11	Direct award	Supplier C	1 355	199.00
	28-Mar-11	Direct award	Supplier D	487	193.90
	19-Apr-11	Tender	Supplier C	5 208	189.33
	04-Aug-11	Direct award	Supplier F	453	195.00
	16-Aug-11	Tender	Supplier C	5 208	188.37
	07-Feb-12	Direct award	Supplier F	1 732	188.00
UMAE 1	25-Aug-10	Direct award	Supplier D	300	196.46
	21-Feb-11	Restricted invitation	Supplier G	483	240.00
	29-Apr-11	Tender	Supplier C	1 100	185.50
	03-Aug-11	Tender	Supplier C	2 760	181.68
	09-Mar-16	Restricted invitation	Supplier H	900	276.20
UMAE 2	14-Apr-09	Tender	Supplier A	4 070	207.60
	01-Jan-10	Tender	Supplier D	1 340	187.10
	28-Apr-11	Tender	Supplier C	1 488	185.50
	12-Aug-11	Direct award	Supplier I	248	230.00
	18-Aug-11	Tender	Supplier C	1 488	189.33

Note: Exceptions to the public tender procedure in bold. All procedures reported in the table were national. Source: OECD analysis of IMSS contract data.

These price differentials are not observed across all procurement that used exceptions to public tenders, however, possibly because: 1) a direct-award procedure is often used to complement purchases pursuant to an existing contract, so that the agreed price is at the level of the existing central contract; and 2) the threat of potential competition may incentivise suppliers to offer or accept competitive prices, even when there is no bidding process involved. Moreover, the higher prices in Table 11.9 are often associated with much lower volumes: this emphasises the importance of careful requirement planning, so that procurement units do not have to resort to purchasing smaller, top-up volumes that often come at higher cost.

▲ Central □Local 800 700 600 500 400 300 200 100 0

Figure 11.16. Prices for paper towels in IMSS public procurement, 2012-2016

Notes: If different prices are quoted for split-contract awards, only the lowest price is shown. Dates correspond to the award date for each contract. Cancelled contracts are excluded. Source: OECD analysis of IMSS contract data.

As of 2012, IMSS transferred most of its paper-towel purchasing to centrally organised tenders. Since then, over 95% of its annual volume requirements have been sourced through central tenders. The prices IMSS paid during the 2012-2016 period are shown in Figure 11.16. IMSS central tenders have largely yielded lower prices, which is likely the result of two effects. Firstly, central tenders consolidate the requirements of all delegations and UMAEs so that bidding for the corresponding contracts is more aggressive and savings from economies of scale are passed on to the final price offer. Secondly, any residual demand at the local level is low so local prices are higher than those prevailing pre-2012 (see Figure 11.16), which again highlights the importance of requirement planning. Most local procedures during this period (82%) were direct awards and restricted invitations, reflecting the nature of local procurement. This also likely impacts negatively on the prices IMSS obtained, as shown in Table 11.9.

The fact that there remain local procedures resulting in prices lower than those achieved through central tenders is another manifestation that no single approach is guaranteed to achieve the optimal outcome. Procurement strategies and tender design need to be adapted and take into account local characteristics and market conditions at the specific moment in time; see Section 7. on market-research and Section 6.3 on the variability in procurement processes.

11.12. Services: Insurance

IMSS contracts two types of insurance policies:

- 1. Insurance that covers IMSS's assets, such as its buildings (including hospitals) and vehicles (including ambulances). IMSS includes other insurance products in this category, such as insurance for mortgages and loans it grants its personnel, as well as indemnity insurance and legal assistance. Insurance for IMSS's assets typically has two covers:
 - Primary cover insures IMSS against payments up to the secondary insurance policies' excess.
 - o Secondary cover protects IMSS for claims above an excess amount (paid by the policyholder), and is significantly more expensive.
- 2. Non-asset insurance, comprising mainly life insurance for IMSS personnel and those to whom it has granted mortgages.

Both insurance policy types are the responsibility of IMSS's Division of Contracts for Assets and Logistics (División Contratante de Activos y Logística).

Up until 2014, IMSS contracted insurance policies on a yearly basis for each category. They were all usually included in one national call for tenders with each policy as a separate lot. The tenders were run in-person until 2010, in mixed format in 2011, and since 2012 have been run electronically.

IMSS changed its procurement strategy in 2014, by switching to multi-year contracts.⁴⁹ This change was motivated by the following factors: 1) time and cost savings and efficiencies associated with the procurement process, given that resources are allocated to the tenders every two years; 2) allowing more time to carefully design inherently complex insurance policies and contracts; and 3) the 2011 OECD recommendation to use multi-year contracts as a means to fight bid rigging in procurement procedures.

Another important change in IMSS's strategy regarding its tenders for insurance contracts was the switch from using the binary criterion for evaluating submitted offers to a points and percentages criterion.⁵⁰ This change aimed at allowing IMSS to better evaluate all aspects of the offers it receives (rather than relying on lowest nominal cost only) and to enable comparisons with similar contracts outside IMSS.

Table 11.10 shows the outcome of IMSS's tenders for insurance contracts for the period 2010-2018. The use of multi-year contracts has not resulted in an increase in IMSS's savings but rather that the discounts it secured have persisted.⁵¹ The switch, as the same time, to a different evaluation and award system makes intertemporal comparisons difficult - given that offers in the most recent two tenders had to fulfil more criteria than simply submitting the lowest price bid and so an improvement in procurement outcomes could be non-price related.⁵²

Table 11.10. IMSS spending on insurance and reported savings

Year	Туре	Total contract value (MXN millions)	Reported savings (MXN millions)	Reported savings (%)
2010	Yearly	280	110	28%
2011	Yearly	486	-61	-14%
2012	Yearly	387	31	7%
2013	Yearly	719	245	25%
2014	Yearly	867	244	22%
2015*	Multiyear	557	171	24%
2016*	Multiyear	557	171	-
2017*	Multiyear	836	216	21%
2018*	Multiyear	836	216	-

Note: The total spending varies each year based on the assets being insured which might change greatly each year. Reported savings by IMSS are calculated on the basis of the difference between the actual and expected contract value. The actual value is the value of the contracts awarded post-tender while the expected value is the IMSS approved budget. * For multi-year contracts, total spend and savings are equally distributed across the number of years in the contract.

Source: IMSS.

Fire insurance

IMSS's fire insurance is in fact a wider category that insures against all damage to IMSS assets⁵³ and covers all natural and manmade damages to IMSS properties. In the period 2010-2018, it has accounted for at least 56% of IMSS's insurance spend. In 2014, at the same time as other shifts in its procurements procedures, IMSS bundled together fire insurance with other insurance types (such as theft insurance) in a new category called "business damage insurance". This consolidation was aimed at increasing cover, eliminating overlaps, and reducing administrative costs.

Savings cannot be accurately measured for individual insurance categories.⁵⁴ Figure 11.17 instead tracks the ratio of insurance cover to contract value, i.e. a metric of how successful IMSS tenders have been in attracting better value-for-money offers. This ratio has dropped in the post-2015 period, which coincides with the multi-year contracts IMSS tendered out.

Primary business Secondary business ♦ Value to cover ratio MXN million Ratio 0.50% 700 0.45% 600 \Diamond 0.40% \Diamond 500 0.35% \Diamond 0.30% 400 0.25% 300 0.20% 0.15% 200 0.10% 100 0.05% 0.00% 0 2012 2013 2014 2015 2016 2017 2018

Figure 11.17. IMSS insurance cover and insurance contract value

Note: Vertical line identifies the switch to multi-year contracts and the change in the cover. Source: OECD analysis of contract data provided by IMSS.

Life insurance

Similar to the effect of centralisation and consolidation in the case of procurement of medicines and medical material, IMSS should monitor the likely impact of its services tender design. Table 11.11 outlines the outcome of IMSS tenders for mortgage life insurance contracts. The corresponding policies provide life-insurance cover to IMSS employees who have taken out mortgages.⁵⁵

Table 11.11. Bids and outcome of tenders for IMSS mortgage life insurance

Tender	Insured amount (MXN millions)	Winning offer (MXN millions)	Winning offer as a % of insured amount	Number of offers
N127-2011	12 024	19.5	0.16%	7
N217-2012	12 915	19.8	0.15%	9
N141-2013	13 545	24.0	0.18%	13
N183-2014*	14 045	55.7	0.20%	6
E207-2016*	15 296	75.6	0.25%	4

Note: * Insured amount is effective per policy year, whereas the winning offer is shown for the contract length of two years.

Source: OECD analysis of contract data provided by IMSS.

The number of offers IMSS received for mortgage life insurance cover has fallen since the introduction of the multi-year tender procedure: from 13 offers in 2013 to 6 in the first multi-year tender in 2014 and 4 in 2016. This reduction in offers has been accompanied by a slight deterioration in the contract value to cover ratio (from 0.18% up to 0.25%).⁵⁶ It does not necessarily follow that this narrowing of the pool of potential insurance providers is linked to the longer contract duration and associated obligations. However, such trends in tender participation should be reviewed during the market-research stage to inform future tender-design choices: multi-year tenders may not be appropriate for all service types, even when considering similar services.

Notes

- ¹ While they are less relevant in the fight against bid rigging (at least in the period during which the product is under patent), these examples offer insights as to the effect of tender participation. Moreover, they highlight the importance of market research in public procurement.
- ² See Annex A.
- ³ Several cases may attest to common findings, so that a consistent pattern often emerges across various products.
- ⁴ For example, see Sections 3.1 and 3.2.
- ⁵ There are two types of haemophilia, A and B. Type A, which is more common than B, is caused by low levels of factor VIII; type B is caused by low levels of factor IX
- ⁶ Product code 010.000.4239.02.01 prior to 2012 and 010.000.4239.00.00 since 2012. Both specifications refer to the same 250UI formula.
- ⁷ Where local prices are noticeably higher than those in central contracts, this relates to the procurement of very small quantities following a direct award (in these cases, from one delegation) from suppliers other than those engaged in the supply of AHF pursuant to central IMSS contracts.
- ⁸ The three formulations can be found in IMSS's *Cuadro Básico* with product codes 010.000.3417.00; 010.000.5501.00; 010.000.4408.00; and 010.000.4408.01.
- ⁹ This includes supply for other public bodies such as ISSSTE, SEDENA and SEMAR.
- ¹⁰ With one exception in 2010 (Michoacán) and one in 2013 (Pediatría S. XXI).
- ¹¹ For 2012, the first- and second-best offers split the supply for the year in a 80/20 ratio.
- ¹² Included in IMSS *Cuadro Básico* under code 010.000.5240.00.
- ¹³ These do not include individual purchases valued under MXN 2 000, for which there are no records on IMSS's SAI database.
- ¹⁴ For example, scarcity in human plasma required for the production of immunoglobulin G may make meeting higher requirements more difficult and so more expensive.
- ¹⁵ Included in IMSS *Cuadro Básico* under code 010.000.5165.
- ¹⁶ In early 2018, COFEPRIS had 21 valid market authorisations (*registros sanitarios*) for metformin.
- ¹⁷ Comparisons with counterfactual price series are not informative in this case. INEGI prices do not appear representative and consistent (for example, showing significantly different price trend in different cities). IMSS emergency purchases are concentrated in 2012-2013 only. Prices that other public bodies have paid during the relevant period are not readily available.
- ¹⁸ Included in IMSS *Cuadro Básico* under codes 010.000.0104; 010.000.0105; and 010.000.0106.
- ¹⁹ The contract for paracetamol purchases issued in November 2009 covered the period to December 2011, i.e. two years. This is evident in the number of units assigned to the corresponding contract, as shown in Figure 11.7. Consequently, there was no central procurement in 2010.
- ²⁰ The fact that the prices achieved appear to be trending upwards does not disprove this observation. Indeed, as Figure 11.8 shows, it is likely that the price achieved by IMSS (and other public bodies) could have been higher still.

- ²¹ For example, the contracts for Nuevo León, Michoacán, and DF Norte signed in January-February 2013 had unit prices 21%, 18% and 18% higher respectively than the February 2013 IMSS central contract. The contracts awarded by Tabasco in April-May 2013 had prices between 77% and 84% higher than the central IMSS contract of February 2013.
- ²² These savings would be on top of those potentially already embedded in the winning bid for the central contract.
- ²³ The three formulations can be found in IMSS *Cuadro Básico* with product codes 010.000.1234.00; 010.000.1234.01; 010.000.1233.00; and 010.000.2151.00.
- ²⁴ Michoacán, DF Norte and Chiapas Tapachula.
- ²⁵ Also see COFECE (2017).
- ²⁶ Included in IMSS *Cuadro Básico* under codes 010.000.5505.00 and 010.000.5506.00 for 100 g and 200 g formulations respectively.
- ²⁷ With the exception of the 2016 consolidated tender, the prices for the 10-tablet 200 mg and 20tablet 100 mg products have been identical throughout the period.
- ²⁸ The Mexican Industrial Property Act (Ley de Propiedad Industrial) prescribes the granting patents for a period of 20 years from their issue date, under the responsibility of IMPI. COFEPRIS, as the competent authority, liaises with IMPI before issuing a market authorisation; once a patent expires it authorises the circulation of generic versions in the Mexican market.
- ²⁹ The CCNPMIS price is an upper bound. An individual purchase contract may be agreed at a lower price, for example, if a volume discount is negotiated
- ³⁰ In 2012, celecoxib was sourced through a series of local contracts signed by IMSS delegations and UMAEs in January and February of that year.
- ³¹ The only two exceptions to this are two local contracts that quote an older CCNPMIS price. It is not clear if this is a mistake in the application of the CCNPMIS agreement on the part of the corresponding delegations (in which case, it is for IMSS to ensure that such deviations do not occur) or an erroneous entry in IMSS contract database.
- ³² Included in IMSS *Cuadro Básico* under code *010.000.4225.00*.
- ³³ Also see COFECE (2017).
- ³⁴ In 2012, imatinib was sourced through a series of local contracts signed by IMSS delegations and UMAEs in January and February that year.
- ³⁵ There are currently two imatinib generic versions with a *registro sanitario*; however, neither has been approved by the IMSS Medical Unit.
- ³⁶ This average is based on purchases through annual consolidated tenders in the period 2013-2016.
- ³⁷ For example, Novartis lost a court case on Imatinib's patent in India in 2013.
- ³⁸ Oficio No. 09552461 2400/DICBIS/CBMC/2013/0906 sets out the legal reasons that this change in specification was requested.
- ³⁹ Included in IMSS *Cuadro Básico* under codes 060.436.0107.11 and 060.436.0107.13 for 8-sheet and 12-sheet 10x10 gauze respectively.
- ⁴⁰ That the quality of gauze offered in IMSS tenders varies, even within the specification defined in the call for tenders, has been confirmed by IMSS officials.
- ⁴¹ Included in IMSS Cuadro Básico under code 060.345.2186.01.01.
- ⁴² IMSS has confirmed that few other products may be subject to similar procurement processes.

- ⁴³ Other participating public bodies do not purchase significant volumes of infusion sets in the consolidated tenders.
- ⁴⁴ Excluding purchases by one delegation; see note to Figure 11.14.
- ⁴⁵ Product code 060.841.0882.12.01, "Suturas sintéticasabsorbibles polímero de ácido glicólico, trenzada, con aguja. Longitud de la hebra. 67-70 cm calibre de la sutura. 1 características de la aguja. 1/2 de circulo, ahusada (35-37 mm)". Out of the 115 sutures products procured by IMSS, this type was the most purchased, accounting for approximately 17% of IMSS's spending on sutures in the relevant period.
- ⁴⁶ Included in IMSS *Cuadro Básico* under codes 350.865.0151.01.01, 350.865.0151.02.01, 350.865.0151.03.01, 350.865.0151.03.01 and 350.865.0151.04.01 (paper towels for hand drying, three-ply, white, single-leaf).
- ⁴⁷ In 2010, the prices offered to IMSS delegations and UMAEs by one supplier were identical. In other cases, there were small differences in price, perhaps reflecting local conditions and distribution requirements and costs.
- ⁴⁸ Price differences range from 5-9% for Delegations 1 and 3; to 11-32% for UMAEs 1 and 2; to around 95% for Delegation 2.
- ⁴⁹ Multi-year insurance contracts were first approved by IMSS's Technical Board in 2014, for the 2015-2016 policy years.
- ⁵⁰ A cost-benefit analysis was done by IMSS in the case of direct-contract awards, which followed void tenders (for example, in cases where the lowest bid was above the non-acceptable price threshold).
- ⁵¹ Discounts are measured against the budgeted contract value, which incorporates IMSS's expectations. As such, it implicitly assumes that IMSS's estimates accurately reflect market conditions. To the extent that IMSS's expectations also take account of larger discounts, true savings may be higher.
- ⁵² In a points-based evaluation system, points may be awarded for non-price and non-technical related criteria, such as social-policy objectives (for example, gender equality).
- ⁵³ This includes, among other reasons, damage due to earthquakes, fires, floods and hurricanes, and any man-made damages that are not the acts of terrorism.
- ⁵⁴ IMSS's budget for insurance expenditure covers all insurance types.
- ⁵⁵ Although not a large category by value, IMSS's spending on mortgage life insurance has remained relatively stable over time so that the impact of policy changes is more easily measured.
- ⁵⁶ Notwithstanding the fact that as mentioned above comparisons of insurance contracts are incomplete when their cost is the only dimension examined.

References

COFECE (2017), Study on free market and competition in the expired-patent drug markets www.cofece.mx/cofece/ingles/attachments/article/38/Studies-Mexico. drug%20markets vF-Baja.pdf

Annex A. Short description of the data sources used throughout this report

This Annex contains a brief description of the more structured and comprehensive databases that have been used at several parts of the report. Subsets of these data were also used to inform the analysis presented in Part III.

Less comprehensive datasets have also been provided by IMSS or collected by the OECD and they have been used to complement the analyses where required. These include:

- 1. Copies of calls for tenders, bid records, bid evaluation reports and contract award files, stored on CompraNet. These records have been used to glean more information regarding IMSS tenders, such as tender participants, brands on offer, their bids. They are less available for tenders organised by delegations and UMAEs and tenders carried out before 2011/2012.
- 2. Patent data i.e. information collated by IMSS regarding patented or singlesource products – that have been used to identify those products in the primary datasets. However, information is neither complete (it is only available for 2012, 2014- 2016) nor necessarily accurate.
- 3. An aggregate summary of brands that have been offered at IMSS tenders in the period 2013-2016 and their country of origin.
- 4. More detailed tender data for a subset of products purchased by IMSS in the years 2013-2017, gathered for the purposes of past analyses by Aklara, consultants to IMSS.
- 5. IMSS's database for services contracted in the period 2009-2016. For integrated services in particular, detailed information on the latest multi-year tender exercise run by IMSS in 2015/2016 has been used.
- 6. IMSS's database of emergency purchases made by its delegations and UMAE (see Box 3.1 and Section 8.2). These show product- and transaction-level data (including unit price, quantities and values) of each emergency purchase in the period 2012-2016.
- 7. Qualitative data gathered from responses to an OECD survey among IMSS delegations and UMAEs

IMSS tender data

This is the main dataset used throughout this report and an extraction from IMSS's SAI system. It contains all records of IMSS procurement of goods and is also the main database used by IMSS internally.

The IMSS tender database contains full-year records for the period 2009-2016, for a variety of goods purchased by IMSS (Figure A A.1). The main variables of interest that can be found in IMSS tender data are outlined in Table A A.1 below.

Medical material Medical instruments Medicines Other items 100 000 92.043 90 000 80 000 64,701 70 000 55.834 60 000 50 000 41.434 40,060 38,102 36,811 36,712 40 000 30 000 20 000 10 000 0 2009 2010 2011 2012 2013 2014 2015 2016

Figure A A.1. Records in IMSS tender database

Note: Entries are counted as they are recorded in the data and so correspond to records in the database. This may lead to double-counting if an item has been sourced from more than one supplier in the same year or even the same tender (split awards are recorded as two separate entries in the database). *Source:* OECD analysis of IMSS tender data.

Table A A.1. Information in the IMSS tender database

T	W L. L.
Type of information	Key contents
Contracting authority	IMSS Central, Delegation name, UMAE
Product	Product code, Product description, Product category/type
Dates	Budget year, Contract issue date, Contract start and finish dates
Contract	Contract number, Contract type, Contract status, Supplier
Tender	Procurement procedure (Public tender, Restricted invitation, Direct award),
characteristics	Tender cover (National, FTA, International), Procedure type (Auction or not)
Volume	Minimum quantity, Maximum quantity, Actual quantity
Price	MRP, Final price, Discounts
Value	Minimum value, Maximum value, Actual value

Source: IMSS tender data.

As explained in Section 8.2, the IMSS procurement database essentially holds contract data and not a number of other potential variables of interest. Such variables may include, for example, the number and identity of tender participants, non-winning bids, disqualified or non-eligible offers, supplier type (distributor or manufacturer), the basket of brands offered, and instances of joint bidding.

The coding of products was changed in 2012. This means that intertemporal comparisons are more difficult for many products. In addition, the absence of common and unique identifiers of tender procedures,² contracts and product codes makes matching additional details into this central dataset difficult and imperfect. This concerns, for example, information regarding whether a tender process was electronic or not, accurately identifying patented and single-source products, or flagging contracts awarded after a consolidated tender.³

IMSS consolidated tender data

The type of information recorded in the consolidated tender dataset is similar to that found in that of IMSS tenders. It contains all records for the procurement of goods purchased by IMSS and its partner procuring bodies (such as ISSSTE, PEMEX, SEDENA, and state health services).

It contains purchase records for the consolidated tenders organised in the period 2013-2016 (Figure A A.2). Information is recorded at purchasing-body level, so that it is also possible to identify the cases where IMSS, ISSSTE or PEMEX dual-source and the corresponding prices paid.

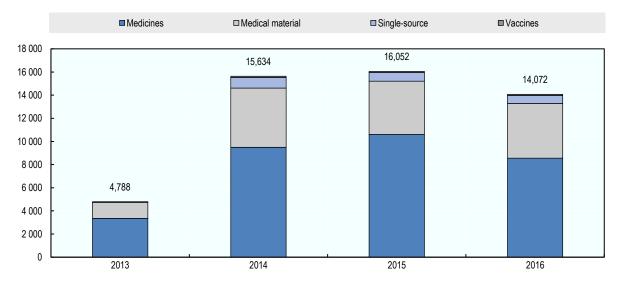


Figure A A.2. Records in IMSS consolidated tender database

Note: "Single-source" includes all patented and single-source products, the price of which has been negotiated by CCNPMIS.

Source: OECD analysis of IMSS consolidated-tender data.

The consolidated-tender database IMSS holds has many of the same limitations as its internal database. In particular, it also holds contract rather than tender data, which again implies that information about each tender's bidding stage is not recorded. The dataset is otherwise rich in the information about all participating institutions' purchases – as shown in Table A A.2.

Table A A.2. Information in IMSS consolidated tender database

Type of information	Key contents
Participating body	IMSS, ISSSTE, PEMEX, SEDENA, State health services, Federal hospitals
Product	Product SKU/code, Product description, Product category
Tender information	Tender year, Tender code, MRP
Contract	Supplier(s)
Tender characteristics *	Tender cover (National, FTA, International), Procedure type (Auction or not)
Tender outcome **	Supplier(s), Quantity(-ies), Value(s), Final price(s)

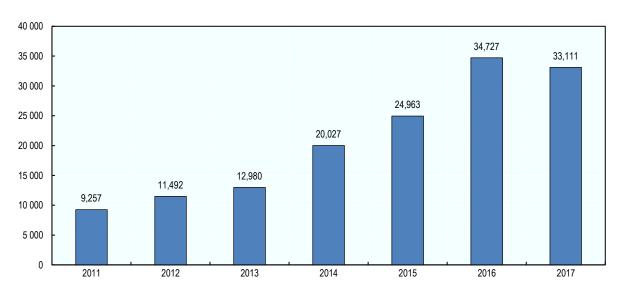
Note: * The procurement procedure used is not explicitly recorded in the database, but can be inferred from the tender identification code. ** In cases where certain participating bodies multi-source, data regarding the procurement outcomes includes information on both suppliers and corresponding terms.

Source: IMSS consolidated tender data.

CompraNet contract data

CompraNet, the Mexican government's e-procurement platform, functions as a depository of information about tenders organised by public procurement agencies in Mexico and the corresponding contracts awarded. Its electronic database includes information on contracts awarded by IMSS in the period since 2011 (Figure A A.3), for both goods and services. CompraNet data has become increasingly more reliable, as more contracts and associated files are uploaded and stored on the platform.

Figure A A.3. Number of IMSS contracts in CompraNet database



Source: CompraNet.

Importantly CompraNet data can also be used to complement IMSS data, where the latter does not record certain tender or contract information (Table A A.3). The two sources (IMSS and CompraNet databases) are unfortunately not interoperable, so information cannot be mapped or matched between them. Moreover, CompraNet holds data at the contract level, which means that product-level information (including pricing or quantity data) is unavailable.

Table A A.3. Information in CompraNet contract database

Type of information	Key contents
Contracting authority	IMSS Central Division, Delegation name, UMAE
Dates	Publication date, Bid opening date, Contract start and finish dates
Tender and contract	Tender code, Contract code
Tender type	Goods/services, Electronic/in-person/mixed, Consolidated or not
Tender characteristics	Procurement procedure (Public tender, Restricted invitation, Direct award), Tender cover (National, FTA, International)
Contract	Contract duration (Annual or multi-year), Contract code, Contract status
Supplier	Supplier name, Supplier type (micro, small, medium), Supplier country
Value	Contract value

Note: The database also contains codes and links to the more detailed records for each tender, which are stored on CompraNet.

Source: CompraNet.

INEGI data

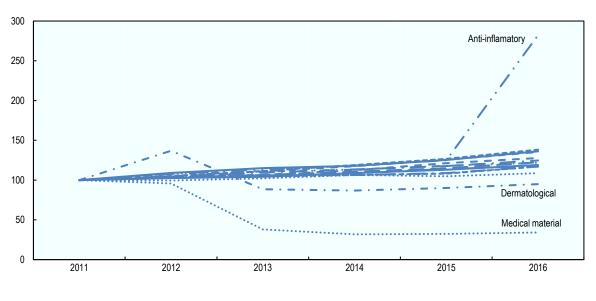
INEGI, the Mexican statistical agency, collects data on the price of medicines, services and medical materials. It has over 158 000 price points for private sector sales in the years 2011- 2016^{4}

At their most granular level, the data are presented at brand and specification level for each active ingredient or group of medicines at different points in time and Mexican cities. The data can also be aggregated up to the required level across 46 geographical areas; 14 medicine and medical-material categories; and 6 770 different brands.

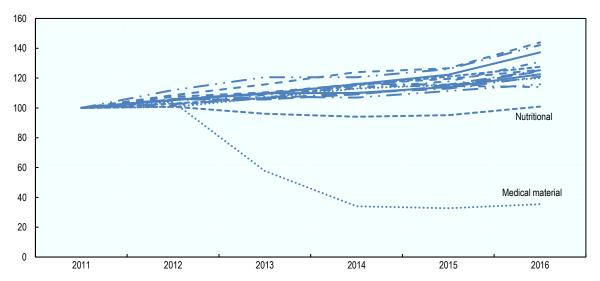
The evolution of the price index for the main categories of medicines is shown in Figure A A.4 for the whole of Mexico and for Mexico City. Consistent with the index depicted in Figure 2.14, medicine prices show a slight upwards trend, which becomes steeper in the 2014-2016 period.

Figure A A.4. Price index for medicines and medical-material

Mexico



Mexico City



Source: INEGI – Índice Nacional de Precios al Consumidor, Salud y cuidado personal, Medicamentos y aparatos.

Notes

¹ The data extract also includes records for 2008, which are incomplete and inaccurate and, as such, have been largely excluded from the analyses.

² There is also an issue of internal consistency given that tender identifiers are not unique within the tender data. This makes it difficult to filter the data by tender or tender numbers.

³ All this information has been found in other databases. Where possible, it has been mapped to IMSS tender data, even if the result of this mapping exercise may be imperfect.

⁴ Data for the years before 2011 are also available, but have not been used for any of the analyses conducted in the present report.

Annex B. Implementation of the 2011 OECD recommendations and follow-up actions

This Annex contains a summary of the 2011 Recommendations and their degree of implementation by IMSS. It also summarizes the follow-up actions IMSS should take to combat bid rigging even more. The implementation of some of the recommendations that appear as "partially implemented" and "not implemented" depends on the collaboration between the IMSS and the various institutions involved and/or on legislative changes.

1. Further opportunities to exercise buyer power

Recommendation	Implementation status	Recommended follow-up action(s)	Institutions concerned
Centralise local purchasing	Implemented	Consider bringing the acquisition of other goods more into line with medicines policy by further centralising the remaining decentralised purchases as much as possible. Closely monitor participation in central tenders. Remain attentive to any indications that suppliers are being discouraged from bidding for certain tenders or products. Monitor the outcome of central tenders to identify products for which no suitable suppliers are found for the required volumes. Continue to follow wider market developments, beyond participation in IMSS tenders, to avoid unnecessary consolidation on the supply side. Liaise with relevant bodies to ensure that patent expiration is diligently monitored; that mechanisms to facilitate the timely entry and granting of sanitary licenses to generics are in place; and that potential substitutes to single-source products are considered, as appropriate.	IMSS COFEPRIS
Procure jointly with other government agencies	Implemented	Closely monitor participation in consolidated tenders. Remain attentive to signs that suppliers are being discouraged from bidding for certain tenders or products. Monitor the outcome of consolidated tenders to identify products for which no suitable suppliers are found for all required volumes. Continue to follow market developments, beyond participation in IMSS tenders, to avoid unnecessary consolidation on the supply side. To the extent permitted by relevant legal frameworks, explore ways to offer a single or a limited number of contracts, or more standardised contract terms. Liaise with relevant bodies to ensure that patent expiration is diligently monitored; that mechanisms to facilitate the timely entry and granting of sanitary licenses to generics are in place; and that potential substitutes to single-source products are considered, as appropriate.	IMSS Other participants in consolidated tenders COFEPRIS
Use multi-year tenders	Partially implemented	Continue using multi-year tenders for integrated services. Selectively extend such contracts to certain categories of goods, particularly in the context of centrally run IMSS tenders, while remaining attentive to existing levels of concentration for these products. Consider the selective use of framework agreements when it is believed that they can deliver benefits better than other tender procedures. Support SFP in its role negotiating framework agreements.	IMSS SFP
Facilitate the participation of new suppliers in tenders	Not implemented	Where necessary, explore ways to encourage both entry into the market by new suppliers and participation in IMSS's own tenders. Use an annual or a multi-year strategic plan to communicate and advertise the products IMSS purchases and its future requirements; this will allow potential suppliers to plan ahead and make the necessary arrangements and investment to participate in tenders. Trial innovative ways to increase tender participation and encourage manufacturers to bid directly in IMSS tenders.	IMSS

2. Co-ordination with SFP and COFECE, and adoption of best practices

Recommendation	Implementation status	Recommended follow-up action(s)	Institutions concerned
Co-ordinate with SFP	Partially implemented	 Strengthen engagement with SFP for best practice in procurement strategies and design. Continue informal discussions with SFP about various aspects of tender processes. Explore more formal channels to arrive at concrete action. 	IMSS SFP
Promote best practices and standardisation of documents and procedures	Implemented	 Continue efforts to harmonise and standardise procedures, particularly at delegation level. The standardised catalogues compiled by IMSS for its procurements cover as many as possible of the products and services that the organisation sources, and their use should be made obligatory for all procurement procedures. Remain vigilant so that standardisation does not inadvertently restrict access to tenders, for example, by ensuring that product catalogues remain open to new products and services. 	IMSS SFP
Adopt remote and electronic procedures	Partially implemented	 Make further efforts to increase the use of electronic tenders, particularly at delegation level. Avoid publishing the names of potential and actual bidders in the minutes of clarification meetings and at the presentation and opening of bids. Bidders could be identified by the use of an anonymised code. 	IMSS
Co-operate with COFECE	Partially implemented	 Work together with COFECE to develop a long-term action plan to implement the IMSS/COFECE agreement that COFECE provide training to IMSS staff and advice on promoting competition in its tenders. Consult COFECE on tender design, market research and contracting procedures, particularly for larger or strategic purchases. 	IMSS COFECE

3. Fighting practices that may facilitate collusion

Recommendation	Implementation status	Recommended follow-up action(s)	Institutions concerned
Place limitations on joint bids*	Not implemented	 Make explicit in calls for tenders that joint bids are only allowed when they can be justified for pro-competitive reasons; and set clear criteria regarding their assessment. IMSS should require information that allows it to perform this assessment and the market-research unit will then assess whether joint bids have pro-competitive effects. Start recording information on joint bids in IMSS tender and contract databases. 	IMSS SFP COFECE
Place limitations on split contracts	Implemented	 Continue to give preference to single-contract awards. Only award split contracts in exceptional circumstances and use an 80/20 ratio. Explore the option of dividing requirements into lots instead of using split awards more frequently. Remain aware, however, that splitting a contract into lots carries the risk of facilitating market allocation among suppliers. 	IMSS
Place limitations on sub- contracting	Not implemented	Request that bidders disclose subcontractors in their bids.	IMSS
Place limitations on information published in annual procurement plan	Not implemented	 Engage in discussions with SFP so that a more flexible way of registering annual procurement plans on CompraNet is put in place. 	IMSS SFP

Note: * Full implementation of this recommendation may require changes to the relevant legislative and regulatory framework.

4. Increased use of competitive procurement mechanisms

Recommendation	Implementation status	Recommended follow-up action(s)	Institutions concerned
Limit the use of exceptions in public tenders	Partially implemented	Continue to tighten the conditions under which exceptional procedures can be used, in particular for procurement organised by delegations and UMAEs.	IMSS
Open up participation as fully as possible*	Not implemented	 Further limit the use of national tenders, in particular for products not currently open to non-Mexican suppliers. Also consider reducing the use of reserves under FTAs. Collaborate with SFP to support an amendment to the Mexican Procurement Act to allow contracting authorities the flexibility to increase their use of open international tenders. 	IMSS SFP
Ensure unpredictability in procurement and tenders*	Partially implemented	Make variability and unpredictability a factor explicitly considered during tender design.	IMSS
Require a certificate of independent bid determination (CIBD)*	Partially implemented	 Implement more widespread use of CIBD, including by IMSS delegations and UMAEs. If not legally possible to make it a requirement for participation, introduce a CIBD as a voluntary document for bidders to submit. IMSS should raise the CIBD in its discussions with SFP, with a view to making it a mandatory requirement for participation. 	IMSS SFP COFECE

Note: * Full implementation of this recommendation may require changes to the relevant legislative and regulatory framework.

5. Overhaul of market research

Recommendation	Implementation status	Recommended follow-up action(s)	Institutions concerned
Allow sufficient time for informative market studies to be carried out	Implemented	 Continue to proactively liaise with SFP to instigate changes to IMSS procedures, and to provide input to possible amendments to the legal and regulatory framework. Strengthen IMSS's ties with COFECE, to include informal discussions on bidding behaviour or outcomes of past tenders and tender design, and formal co-operation based upon COFECE investigations. 	IMSS SFP COFECE
Ensure a sufficient amount of information is collected from high-quality sources	Partially implemented	 Use sources other than those listed in the Procurement Act for market research. Good practice would see additional sources documented in IMSS's procurement guidelines. Monitor supply-side developments in the market, in particular, for matters such as patent expirations and litigation and the entry of additional suppliers in the case of single-source products. Incorporate information on contract performance and implementation, such as product and service quality and performance, contract modifications and contract implementation, into market research. Correlate previous quotes received by IMSS with subsequent bids to ensure the credibility of information from each supplier in subsequent procedures. Use a minimum-content checklist, including for those tenders run by delegations and UMAEs. Central unit to provide support and advice to delegations and UMAEs, including its resources and data sources. Trial centralised market research for tenders run locally and for tenders above a certain threshold. 	IMSS COFEPRIS
Introduce policy of non- disclosure to bidders of information contained in pre-tender market studies*	Not implemented	 Do not make public the methodology that the central market-research unit uses to calculate maximum reference prices. Make more frequent use of evaluation criteria other than the binary criterion. In such cases, ensure that maximum reference prices are not disclosed to any potential tender participants. In the case of (reverse) auctions, consider only releasing information such as the starting price or the ranking of received offers as close as possible to the final bidding round. 	IMSS
Other issues related to tender design*		 Be more proactive and strategic in deciding how lots are used. Engage in discussions with SFP on possible amendments to the Procurement Act that will allow suppliers to "cherry-pick" between lots and their constituent parts. Encourage delegations to explore conducting regional procurement more often for the procurement of both goods and services. 	IMSS SFP

Note: * Full implementation of this recommendation may require changes to the relevant legislative and regulatory framework.

6. Monitoring and information-sharing activities

Recommendation	Implementation status	Recommended follow-up action(s)	Institutions concerned
Proactively monitor participation in tenders and remove any obstacles	Not implemented	 Record adequate data at tender level to allow for systematic monitoring of participation in IMSS procurement procedures. Market-research unit should monitor participation and compare quotes at the market-research stage with offers at the tender stage. The market-research unit should liaise with relevant procurement teams, as well as market participants, to identify barriers to participation and explore ways to remove them. 	IMSS
Maintain a comprehensive dataset for all tenders in an appropriate format	Partially implemented	 Design and maintain good quality and reliable tender data, rather than simply a contract database. Store the data in a user-friendly and searchable format. Grant officials involved in the procurement process across IMSS (both at central and local level) access to these data and share them with COFECE. 	IMSS COFECE
Engage a systematic dialogue with other public agencies	Not implemented	 Expand the exchange of information with other public-procurement agencies, such as best practices, signs of suspicious bidding patterns, comparisons of number of bids and prices received for similar products, and market intelligence. 	IMSS SFP
Create procedures and lines for reporting suspicions of collusion in tenders	Not implemented	 Establish a clear (and possibly, anonymous) internal procedure for procurement officials to report suspicious instances of bid rigging. The reporting unit should preferably be the legal department, which is better suited to take the appropriate action. 	IMSS SFP

7. Training

Recommendation	Implementation status	Recommended follow-up action(s)	Institutions concerned
Train IMSS procurement officials on bid rigging	Partially implemented	 Organise a comprehensive and long-term programme of capacity building in fighting bid rigging in public procurement, including regular workshops where procurement officials can share their experiences. Continue investing in and using trainers who have attended OECD workshops on fighting bid rigging. When an anti-bid-rigging programme is established, make participation a part of the certification process for procurement agents. Make more use of capacity-building activities foreseen in the IMSS/COFECE agreement. 	IMSS COFECE

www.oecd.org/competition

