Assessment and recommendations

Italy's indicators of health system outcomes, quality and efficiency are uniformly impressive. Life expectancy, at 82.3 years, is the fifth highest in the OECD. Admission rates for asthma, chronic pulmonary disease and diabetes (markers of the quality of primary care) are amongst the very best in the OECD, and case-fatality after stroke or heart attack (markers of the quality of hospital care) are also well below OECD averages. Good health care is achieved at low cost – at USD 3 027 per capita, Italy spends much less than neighbouring countries such as Austria (USD 4 593), France (USD 4 121) or Germany (USD 4 650). These remarkable figures, however, mask profound regional differences. Five times as many children in Sicilia are admitted to hospital with an asthma attack than in Toscana, for example. Despite this, quality improvement and service redesign have taken a back-seat as the economic crisis has hit. Financial consolidation has become an over-riding priority, even as health needs rapidly evolve. Dementia prevalence, healthy life years and daily activities limitations at age 65, for example, are all worse in Italy than OECD averages and Italian children are amongst the most overweight in the OECD. To address these challenges, Italy must urgently prioritise quality of its health care services alongside economic sustainability. Regional differences must be lessened, in part by giving central authorities a greater role in supporting regional monitoring of local performance. Proactive, co-ordinated care for people with complex needs must be delivered by a strengthened primary care sector. Fundamental to each of these steps will be ensuring that the knowledge and skills of the health care workforce are best matched to needs.

The Italian *Servizio Sanitario Nazionale* (or National Health Service, SSN) was established in 1978 to grant universal access to a uniform level of care throughout Italy, free at the point of use, financed by general taxation. The Ministry of Health fulfils the function of the overall steward of the health system and defines the *livelli essenziali di assistenza* (or essential level of care, LEA) to be delivered across the country. Beyond this, Italy's 21 regions and autonomous provinces (R&AP) are responsible for the actual planning and delivery of services. The R&AP have considerable legislative, executive and evaluation functions to enable them to fulfil this role. An

important partner is the network of Local Health Authorities (*Azienda Sanitaria Locale* – ASL) and hospital trusts (*Azienda Ospedaliera* – AO) within each R&AP, to whom executive functions are largely delegated. The ASL provide primary care, secondary care, public health, occupational health and health care related to social care at local level, with the R&AP providing technical support and performance management. Articulation between central government's steering role and regional government's delivery role is expressed in the *Patto per la salute* (Pact for health), a three-year plan that is agreed jointly between central and regional governments.

The most significant reforms of recent years concern the governance of the health system. Constitutional reforms in 2001 granted substantial legislative powers to the R&AP with regards to the organisation and delivery of health care. The Constitutional reforms led to the creation of 21 distinct health systems, but it is widely acknowledged that the necessary information infrastructure and technical capacity to adequately discharge these new responsibilities was lacking. Many regional health budgets quickly ran into deficit, requiring central authorities to impose *Piani di Rientro* (Recovery Plans) on eight of them. These plans signalled the introduction of a dominant new player in national health care policy – the Ministry of Finance. Although the Ministry of Health maintained its role in ensuring that essential levels of care were provided at regional level, the Ministry of Finance became actively involved in designing and approving health care delivery. To a large extent, then, the focus of this abrupt resumption of central control was financial and quality of care risked becoming secondary.

Italy is facing, therefore, two major challenges. The first is to ensure that ongoing efforts to contain health system spending do not subsume health care quality as a fundamental governance principle. The second must be to support those R&AP with weaker infrastructure and reduced capacity to deliver care of equal quality to the best performing areas. A more consolidated and ambitious approach to quality monitoring and improvement at a system level is needed. Over the past decade, a range of quality-related activities have been developed, with varying depth and scope, and with little co-ordination across these approaches by central agencies. Different accreditation models have been developed, for example, and performance management tools used by R&AP are diverse, making comparison against national standards difficult and limiting the accountability of providers toward users. These divergent approaches must now be consolidated. At the same time, other key quality strategies are poorly developed or absent. Requirements for recertification and for professional development are not established and payment systems do not systematically reward improvements in clinical care and patient outcomes.

These deficiencies must be addressed to ensure that Italian health care quality architecture is comparable to the best seen in OECD health systems.

A number of other challenges remain to improve the quality of care in Italy:

- The information infrastructure in Italy is insufficiently exploited due to weak data linkage capacity and limited use of electronic health records. In particular, the current depth and breadth of indicators around primary and community care is insufficient to build a comprehensive picture of the effectiveness, safety and patient-centeredness of care in this sector.
- Despite a rapidly emerging burden of chronic disease, Italy is making rather slow progress toward a health system model where chronic disease management and prevention are at the forefront. Italy spends less than one-tenth of what the Netherlands and Germany spend on preventive care, for example.
- The medical profession continues to rely on one-time certification and relatively undemanding systems of continuing medical education compared to other OECD countries. Insufficient policy attention has been given to mechanisms that promote workforce quality, such as re-certification or peer-to-peer reviews as part of continuing professional development.
- There is a lack of quality-related information oriented toward patients. In general, dissemination of information on the performance of health care providers remains underexploited as a potential driver of continuous quality improvement.

Italy's priority must be to move from a system that prioritises budgetary control, to one that gives an equal priority to quality. Informational and financial incentives must be aligned to the outcomes and quality of care, which will require enriching the information infrastructure. Limited data linkage and reluctance to publish some data (such as patient safety metrics) limit the capacity of R&AP and hospitals to learn and improve. In parallel, a more consistent approach to quality monitoring and improvement across the country is needed. A greater role for central agencies such as the *Agenzia Nazionale per i Servizi Sanitari Regionali* (AGENAS, National Agency for Regional Health Services) may be needed to lead this work, not to performance manage R&AP but to support them to performance manage the hospitals, clinics and professionals in their territory more effectively. At service level, it is clear that primary care needs to step-up to fill a bigger role, particularly with regards to the management of chronic disease. The lack of standards and effective use of guidelines in primary care should be

addressed, and a wider range of quality indicators used to incentivise better care. Optimising the skills and knowledge of Italy's health care workforce will be central to all of the foregoing priorities. Introducing more ambitious forms of continuing professional development and assurance of workforce quality, such as peer-to-peer appraisal, will place Italy in a good position to ensure that good health care at low cost continues to be delivered.

The rest of this chapter makes a more detailed assessment and set of recommendations for the Italian health care system. It starts with an overview of the strengths and opportunities for improvements in Italy's health care quality architecture. It then considers three topics in detail: primary and community care, workforce competencies and continuing medical education, and measuring and improving the quality of care in a regionalised health care system.

Strengthening Italy's quality governance model

Although a number of national quality monitoring and improvement frameworks exist in Italy, they are not consistently applied across the R&AP. Further efforts are needed to embed a coherent approach to quality governance across the Italian health system, and to push back against any regional disparities in performance management. This will likely entail a stronger central role. At the same time, deficiencies and gaps in national approaches need to be addressed. In particular weaknesses around the information infrastructure, public reporting tied to patient empowerment, and patient safety should be addressed.

National initiatives to improve health care quality are not consistently applied at regional level

Although recent policy debates have focused predominantly on reducing the health sector financial deficit, a number of initiatives at national level have sought to ensure that effective, safe and patient-centered health care remains a priority. Together, the *Patto per la Salute*, the *livelli essenziali di assistenza,* the *Sistema nazionale di Verifica e controllo sull'Assistenza Sanitaria* (SiVeAS) and, more recently, the *Programma nazionale per la promozione permanente della qualità nel servizio sanitario nazionale* (PROQUAL) constitute the legal framework through which high quality of care in Italy should be maintained. In addition, the *Agenzia Italiana del Farmaco* (AIFA) authorises and monitors the safe use of pharmaceuticals and medical devices throughout the country.

Despite the existence of these national agencies and frameworks, specific quality monitoring and improvement activities are not implemented

in a consistent way. While accreditation for health care facilities is mandatory, for example, there are 21 different accreditation models with varying minimum standards across the country. Some R&AP have established well-developed accreditation programmes based on recognised international standards, while other regions have more rudimentary systems. This issue calls for a stronger steering and oversight role from the national authorities, to ensure a standard, equitable approach, but also to promote learning and disseminate regional experiences in developing and tailoring accreditation pathways. Steps in this direction are, encouragingly, underway: the recent agreement on new rules for accreditation has led to the identification, by a commission composed of representatives of the Ministry of Health, AGENAS and regions, of quality standards to be uniformly implemented within regional accreditation systems and achieve a more uniform approach.

Nevertheless, challenges remain. Many OECD health systems have developed an inspectorate function which can provide independent verification that accreditation standards are being met, identify centres of excellence and support weaker centres to improve their standards. This function, at present, does not exist in Italy and the authorities should consider developing it. At the same time, Italy might consider extending the focus of accreditation to other sectors beyond hospitals, including for example primary and community care. An increasing number of OECD health systems are pursuing this path, and the experience of countries such as Australia or the United Kingdom could inform Italy in this field.

Italy's approach to the use of clinical guidelines is another example of where good policy intentions are not backed up by adequate mechanisms to ensure implementation. Guidelines are developed by both central and regional authorities, including professional and scientific societies. Implementation, however, is the responsibility of the R&AP. Despite the creation in 2004 of the *Sistema Nazionale per le Linee Guida* (National Guidelines System) to make clinical practice guidelines easily accessible, there are no systematic incentives to stimulate guideline uptake, and no consistent framework to monitor their implementation at service-level. One model to emulate may be from Sweden, where central government provides grants to regional governments to encourage guideline implementation. New guidelines on dementia, for example, were accompanied by grants to be disbursed to local government. Regions were then free to use the additional funds as they saw fit. This approach maintains regional autonomy and responsibility for effective implementation, whilst drawing in national resources and support.

Italy should better exploit its information infrastructure

Italy has a large number of rich national and regional databases that contain information on the quality and outcomes of health care. The *Griglia LEA* is used by the Ministry of Health to monitor local access to the *livelli essenziali di assistenza.* The *Griglia LEA* is applied uniformly across the country and contains quality-related outcomes such as the rates of hip fracture surgery within 48 hours and case-fatality rates following acute myocardial infarction. Although this is a strong basis for a nationally consistent approach to performance monitoring, the utility and impact of the *Griglia LEA* is limited by the fact that it only contains 31 indicators. The *Programma Nazionale Esiti* (PNE – National Outcomes Programme) is a more ambitious framework. Designed by clinicians and co-ordinated by AGENAS, the *Programma Nazionale Esiti* covers nearly 129 indicators, including both process and clinical outcome measures, disaggregated to municipal and hospital level. Beyond these national frameworks, a range of health databases exist at regional and local level. In addition, there are numerous patient registers, most of which are operated by professional and scientific societies. In general, these patient registers are highly fragmented, with uneven coverage and linkage across the country. Patient registers are not considered a formal component of the national information infrastructure.

In an effort to make best use of this data, the *Nuovo Sistema Informativo Sanitario (*NSIS – New Health Information System) was established in 2001. A key aim of the NSIS has been to standardise the type and format of health data collected across Italy's regional health systems. Creation of the NSIS was an important step, but the full potential of data within the health system remains unexploited because of persisting difficulties in linking data on individual patients from different databases. Without linkage, building a multidimensional picture of the quality and outcomes of care across a patient pathway is impossible. Yet despite the existence of a unique patient identifier, the NSIS still has a very incomplete picture of patients' care outside the hospital setting.

Most of the difficulties in linking data arise at regional level. At present, only R&AP and ASL are allowed to link databases, but some of them do not have the technical capacity to undertake such data linkage. Further, procedures to obtain approval for linkage are not standardised and criteria used to evaluate proposals not transparent. Both facts reduce the scope for monitoring quality improvement and for conducting health research.

Standardisation of the approval process needed to link and analyse health data, and diffusion of best practices in the processing of personal health information are needed. In addition, support for weaker R&AP in

developing technical capacities around data linkage will be necessary if Italy is to better exploit the health data that currently exist. At the same time, Italy needs a richer information infrastructure to paint a fuller picture of quality and outcomes, particularly in primary care. At present, most performance measurement tools focus on acute care. Hence, there is a clear need to put greater emphasis on primary and community care indicators. Other OECD countries are beginning to collect quality indicators such as pressure ulcers, falls, management of chronic disease and effective care co-ordination which provide a measure of quality in these sectors. Italy should seek to do the same.

Greater focus on public reporting would encourage patient empowerment and drive higher quality of care

Substantial effort is made in Italy to convert health data into usable information, disseminated to professionals and to the public in various formats. The *Griglia LEA* and *the Hospital Discharge Report* for example, use a traffic-light scoring system and interactive maps to make its data accessible to the public. In contrast, dissemination of PNE data is relatively technical and poorly oriented to the public. Instead, findings are disseminated through a series of events and regional workshops, targeted to health service managers and clinicians. The PNE web portal is, however, highly customizable and allows sophisticated comparisons of quality of care indicators for local benchmarking. Other national reports on health system performance include the *Osservasalute*, published by the National Observatory on Health in the Italian Regions, and the *Rapporto Sanità* published by the University of Rome II. As with the PNE, however, both of these products are of a technical nature and firmly oriented to professional groups.

The opportunities available to patients to make use of quality data and to be involved in quality assurance of health care remain, therefore, rather limited in Italy. As work to build the information infrastructure underpinning Italian health care continues, it will be essential to make sure that sufficient attention is given to how patients and civic society more broadly can make an effective contribution to quality assurance, quality monitoring and quality improvement. Plans for this would be best made at local/regional level to maximise the potential for patients and the public to influence service redesign, and should include primary and community care services as a priority. In addition, there is a particular need to conduct patient satisfaction surveys more extensively and systematically across Italian health care services to better develop monitoring of the patient-centered dimension of health care quality. Although patient experiences are reported in some datasets, their impact on changing service delivery and quality improvement is not clear.

Going further on ensuring patient safety

A key action to improve patient safety was the setting up of the National Observatory on Good Practices in 2008. The overarching aim of the Observatory, which is co-ordinated by AGENAS, is to encourage continuous improvement of quality and safety of care by sharing learning from adverse events in hospitals and clinics, and to promote transfer of good practices. A bottom-up approach is implemented, through regional and inter-regional workshops in which all 21 R&AP participate. Learning from these workshops is consolidated, and emerges as improvement actions applicable across the country and made publicly available on the Observatory portal. The implementation of these actions, together with the Recommendations for preventing sentinel events issued by the Ministry of Health, is supported by AGENAS. Using a questionnaire, AGENAS monitors compliance with the recommendations and seeks to understand the barriers that R&AP have encountered in implementation. In addition, the Ministry of Health collects data about sentinel events, which is considered as one of the best practices at European level to monitor such events.

The Observatory is an excellent demonstration of the Plan-Do-Study-Act cycle in action. Although the Observatory is internationally regarded as a successful model to emulate, there are still opportunities to further develop the patient safety work done at national and local level. A national health inspectorate as already mentioned, for example, could enforce implementation of Observatory recommendations and apply sanctions where services are failing to meet required safety standards. National targets for reducing adverse events and patient safety incidents could be set. Other OECD countries provide examples of what is being achieved elsewhere. Several countries have set national targets, underpinned by focussed, grass-roots campaigns to change practice at ward and clinic level. These campaigns focus on potentially easily avoidable but commonly occurring patient safety issues, such as medication errors, pressure ulcers and catheter or venous-line infections. Importantly, these campaigns do not teach new science or new techniques. Instead, they are multi-layered initiatives which focus on the implementation science of changing behaviour.

Strengthening primary and community care in Italy

The Italian health care system has traditionally delivered high quality primary care, as demonstrated by quality indicators such as avoidable hospital admission. Admission rates for asthma, chronic obstructive pulmonary disease (COPD) and diabetes are amongst the lowest in the OECD. Patient satisfaction levels are also high. Current demographic and epidemiological shifts will, however, place new pressures on primary and

community care services, particularly with respect to the management of chronic diseases. Italy has taken an important step towards ensuring greater co-ordination and integration of care with the Balduzzi Law (No. 189/2012) which encourages the establishment of community care networks. Going forward however, Italy should look to a renewed approach where i) national authorities better support R&AP in the setting-up of community care services and ii) where quality strategies are broadened towards the primary and community care sector.

The primary care system has served its role well up to now, but an ageing population and a growing burden of chronic conditions call for a renewed approach

The Italian primary care system serves as most patients' first point of entry into the health care system. The provision of primary care services is organised by health districts, which are sub-units of *Azienda Sanitaria Locale* (ASL). General practitioners (GPs) and paediatricians are grouped together and can be considered primary care physicians (PCPs), who act as "gatekeepers" for the Italian Health System. PCPs work under a government contract as independent professionals, and are paid through a mixed system including both capitation and fee-for-services negotiated within a collective agreement signed every three years. In 2012, there were around 0.76 GPs per 100 000 inhabitants and 0.91 paediatricians per 100 000 children aged between 0 and 14 years old.

While the primary care system has served its role up to now, Italy now faces a demographic and epidemiological shift with a growing ageing population and a rising burden of chronic conditions. The share of the population aged over 65 years in 2011 was the third highest among the OECD countries and it is expected to grow 1.7 times by 2050. This inevitably implies an increased prevalence of chronic illnesses and long-term conditions. This, combined with very worrying risk factor profiles amongst Italian adolescents (who are amongst the most overweight, least active and most frequent smokers in the OECD) point to an urgent need for primary and community care to play a bigger role in the health system, delivering effective primary and secondary prevention as well as avoiding unnecessary hospitalisation. Comparative data, however, strongly indicates that community, long term care and preventive services are underdeveloped in Italy compared to the other OECD countries. Italy spends less than one-tenth of what the Netherlands and Germany spend on preventive care, for example, and has the lowest share of long-term care workers (as a share of the population aged 65 years or over) in the OECD. Italy should without delay place chronic care management and prevention at the forefront of the health care system.

Care co-ordination and integration between health and social care need better support and leadership at national level

Given the challenges brought by the demographic and epidemiological changes, the past few years have seen efforts to reorganise the primary care sector and experiment with new models of service delivery. The National Health Planning and the Balduzzi Law (No. 189/2012) introduced new organisational forms in primary care. Practitioners were encouraged to establish community care networks to foster continuity and integration of care, as well as to further develop chronic disease management programmes. Community care networks (including *Casa della Salute*) and Community hospitals (*Ospedale di Comunità*) are characterised by a high level of integration between levels of care and rely on multidisciplinary care teams and personalised care plans. Primary care services and specialised health services have linked together to create integrated networks of community care. These networks are promising innovations, but a lack of guidance and absence of a national leadership have resulted in their low and uneven diffusion across the country (although the *Patto per la Salute 2014-2016* is likely to address these issues). Of even greater concern perhaps, is the fact that health spending across some ASLs still appears to be predominantly directed toward traditional types of primary care services, i.e. single-practice GP, with little spending allocated to services for frail patients or those with chronic conditions.

The Italian Ministry of Health should consider playing a greater steering role so that a more consistent regional development of community care networks and community hospitals occurs. National authorities should better support R&AP in the setting-up of such facilities. Additional resources, guidelines on setting-up and running community care services, training programmes, better use of ICT and expansion of the chronic care model are all specific themes that would benefit from greater guidance from national authorities. Steps in this direction are, encouragingly, underway: the *Patto per la Salute 2014-2016* provides guidance to support R&AP in the process of setting-up community care networks and community hospitals. Looking to secure co-ordinated and integrated care, the *Patto per la Salute 2014-2016* also places great emphasise on the need to expand the use of chronic care model and ICT. Exchanging good experiences through learning from the top-performing regions or facilities is another avenue to encourage more extensive and ambitious development of primary and community care networks.

The information system needs further development to better capture activity and outcomes around primary and community care

Another important challenge for Italy is to increase the collection of data around processes and outcomes of care in the primary and community sector. At a national level, there are some broad measures of primary care such as vaccination coverage, screening rates or hospital admissions for chronic conditions that are collected in the *Griglia LEA* or the PNE programme. These do not provide a comprehensive picture of the effectiveness and safety of primary care. At local or regional level, there are a plethora of initiatives, using different performance methods and collecting different indicators. Although the database developed by the Italian Society of General Medicine is an excellent system to measure performance among GPs, it only covers 15% of the GPs in Italy which substantially limits its potential impact in monitoring quality of care.

The current deficit of information on the patterns of care and outcomes in primary and community care, alongside a lack of standardised health datasets, means that it is not possible for stakeholders to consistently assess and benchmark the quality of primary care being delivered. While Italian authorities seek to modernise the primary care sector, there is a need to ensure that ongoing reforms do not adversely affect outcomes of care. Collecting indicators around the management of chronic conditions, the co-ordination between levels of care, and the patient's experience with the new community care services will be critical for the success of the Balduzzi Law. The collection of such indicators would enable health providers and policy makers to appropriately explore any shortcomings and identify areas that may require improvement. Israel and Denmark offer a model of where comprehensive and actionable indicators to support quality improvement in primary care have been developed.

Italy could use existing datasets such as the *Griglia LEA*, PNE or the New Health Information System to introduce primary care quality indicators to build a multidimensional picture of the quality and outcomes of care across a patient pathway. The exchange of uniform electronic patient records, that are portable across different levels of care, is another potential way to track patient pathways so that a fuller and more detailed picture of the effectiveness, safety and patient-centeredness can be built.

There are several other opportunities for extending quality strategies towards primary and community care

As renewed efforts are underway to increase care co-ordination and integration, Italy should ensure that primary and community care are brought into the various quality initiatives being set up at national and

regional level. Thus far, this has not always been the case. The focus of the new harmonised accreditation programme, for example, is on hospitals. Expanding coverage to primary care and community care networks will be critical to guaranteeing high quality, high performing primary care sector. Other federalised OECD health systems such as those in Australia or Canada have developed a set of national standards and a robust accreditation model that applies uniformly across the country to the primary care sector. At the same time, there are few mechanisms to ensure guideline implementation by primary care professionals. Evidence shows a low degree of adherence to disease specific guidelines for major chronic conditions such as COPD or asthma. If Italy wants to encourage more efficient management of chronic disease at primary care level, central or regional governments must first set-up economic incentives or sanctions to encourage guideline implementation. Given that population ageing will be associated with an increased complexity of health needs and multiple chronic health conditions, it would also be highly appropriate to produce guidelines that address care for elderly patients, patients with multiple morbidities, and patients with particular care co-ordination needs.

There is also a pressing need to enhance primary care's contribution to primary and secondary prevention. At present, R&AP's implementation of preventive health care initiatives has been inconsistent. Principles and tools for primary and secondary prevention are not sufficiently embedded into the primary care sector, despite increased expectations are placed on the latter to engage in more preventive work and deliver a wider and more co-ordinated response to community health care needs. More emphasis on the pivotal role that nurses and GPs could play is needed to improve preventive activities across regions. Developing educational programmes in prevention or detection through for example continuing medical education programmes should be a key instrument to encourage primary care professionals to more fully implement the ambitions of the National Prevention Plans. Investing more in the community nursing workforce to manage the prevention and the treatment of the disease is another way to guarantee a co-ordinated and patient-centered management of chronic conditions.

Perhaps more crucially, the setting up of smarter payment systems into the Collective National Agreement to better reward quality initiatives and to be linked to preventive work should be a priority. The fee-for-service (FFS) component has the potential to drive more effective primary care (around primary and secondary prevention for example) but mostly pertains to the use of computer system or the recruitment of support or other medical staff. Future FFS negotiations should make more explicit links to national priorities around preventive interventions, care co-ordination or more broadly to standards of care. The FFS sum could also be adapted to reward

compliance with specific clinical guidelines around preventive activities and the management of chronic conditions. There are key examples for learning from other OECD countries, such as the United Kingdom, where the introduction of financial incentives had favourable effects on primary care physician's compliance, leading to improvements across a range of indicators around secondary prevention and the management of chronic conditions.

Securing a high quality workforce: Medical education and training in Italy

The relatively good results that Italy's health system is delivering suggest that the medical workforce is, in general, delivering care of a high quality. Indicators such as low avoidable hospital admissions for asthma, COPD and diabetes, rates lower than the OECD average for mortality following hospital admission for stroke and acute myocardial infarction (AMI), and relatively low rates of surgical complications, reflect well on the quality of both the primary care and specialist workforce. Looking to secure this high performance for the decades to come, and push back against any regional disparities in quality and outcomes, Italy has been taking important steps towards ensuring nationally cohesive workforce training programmes. The recent step to standardise accreditation for continuing medical education (CME) providers is, in particular, an encouraging move. However, going forward, good medical education and nationally standardised CME may not be enough to secure a high quality, high performing medical workforce. Italy should look to more modern and self-regulatory models of workforce quality insurance, pushing practitioners to play a more active role in evaluating their own care – for example, through more active use of data and outcome indicators – and could learn from other OECD countries in developing more pertinent quality assurance mechanisms for the medical workforce.

Keeping quality high from the start: Entry into medical school and undergraduate education

Medical education in Italy is regulated by the Italian Ministry of Education, Universities and Research, meaning that teaching uniformity is secured across the national territory. Medical education is also consistent with the EU directive on medical education allowing free movement of medical professionals within Europe (Directive 2005/36/EC). Physicians trained in Italy follow an undergraduate programme which lasts at least six years, during or after which students must work within a hospital ward for at least six months. After graduation medical school graduates must pass

a national examination so as to be placed on a national physician register and be allowed to practise. The license issued is valid for the whole of Italy, not only for the province in which the licence is granted, and this licence is of unlimited duration. Following licencing, physicians can choose among various professional paths depending on the kind of postgraduate specialisation programme they attended. Specialisation consists of a four to six year course at a chosen specialist school, and is required for physicians to work in the hospital sector. Legislative Decree No. 256/1991, which implemented the EU directive on GP training, made participation in this three-year course compulsory to practise family medicine.

A degree in nursing is obtained after a three-year course of study and the acquisition of 180 credits and immediately enables the degree holder to practice as a nurse, following registration with the Professional Board of Nurses and Midwives, in the public sector as well as in the private sector.

Italy could take further steps to promote excellence in the workforce even from the beginning of training, and could consider the value of aptitude tests in selecting applicants after they finish school. A large number of OECD countries – Australia, New Zealand, Canada, the United Kingdom, the Netherlands – use tests which consider candidates' capacity to succeed in medical school across a range of domains, for example logic and reasoning, communication, application of knowledge, and not just scientific or medical knowledge. Given that Italy already has a national examination for entry into medical school, the addition of a component of these aptitude tests to this test is an avenue to consider.

Keeping the quality of education provided high is another consideration. Educational standards in Italy are maintained by the Italian Ministry of Education, University and Research nation-wide, and the national examination for qualification keeps curricula fairly standard. Nonetheless, there is always scope to improve educational quality, and international literature and research offers some important insights. A "student-centered" or "learner-centered" approach to medical education has been supported by some studies, and promoting communication skills, and effective interaction with patients is seen as increasingly important. A consideration of the broad skill set that medical students will eventually need – team work, patient communication, self-reflection – should guide the content of undergraduate education and assessment methods, as well as the traditional scientific and medical teachings.

Maintaining and improving professional standards through Continuing medical education

Continuous learning and keeping up to date with medical knowledge is an accepted requirement for health professionals. Often this is done through continuing medical education (CME). CME is mandatory for all physicians practising in Italy, who must obtain 50 CME credits per year. Credits are assigned by an accredited CME provider and awarded for according to hours of training activities, the type and characteristics of the programme. As it stands, accreditation of national providers is carried out by the National Commission for Continuous Education (*Commissione Nazionale Formazione Continua*), while regional accreditation is awarded at the regional level by regions or autonomous provinces (about 10% of CME programmes are run by regional providers). Some positive steps have been taken towards introducing a layer of quality assurance for CME, with all administrative functions for CME having been passed to AGENAS (from the National Commission for Continuous Education) as part of an attempt to harmonise different standards for CME provision in different regions, in particular through improving information collection. AGENAS has already signed specific agreements with ten regions for continuing medical education, involving the implementation of the programme for the accreditation of regional providers, which requires the use of the software needed for administrative tasks. For nationally accredited CME providers, which make up the majority of providers, a series of biennial administrative checks – staffing, building infrastructure, checks by a scientific committee – are carried out by the National Commission for Continuous Education, which can be followed up with unplanned inspections. AGENAS can also push providers to provide CME that meets some of the key challenges of the health care systems – for example maternal health, or sexual health – but take-up of CME relies upon professional choice.

There are some ways that Italy could look to maximising the impact of the existing CME system, even without making significant changes to structure of CME delivery, or surrounding requirements and legislation. To have a real impact on care quality, CME should match with identified shortcomings in the health system, as well as helping to address areas of weakness of individual health professionals, and should be delivered in such in way as to maximise positive impact. Italy could consider ways to incentivise the uptake of certain CME activities which are judged to meet the health system's needs, for example by increasing the number of CME credits attributed to these activities.

Furthermore, at present there is no link between individual health professionals' performance evaluation, either systematic self-evaluation or

evaluation by peers, and CME accreditation. The selection of CME activities is left open to the individual professional, who can choose between all accredited courses and providers. There is more potential to improve the quality of the professional's care if their CME activity maps onto areas of weakness or gaps in skills and knowledge. Systematic reviews of practice can disclose weaknesses or educational needs, which can then be used to target CME uptake more effectively. Again, there should be an effort to give particular support and incentives to programmes that encourage physicians to reflect on their own practice, and to improve it. In general, tools that facilitate physician self-evaluation and reflection upon practice should be further encouraged. One way that CME activities could be mapped more closely to anticipated skill needs is through the specification of expected CME completion in local contracting, which is already in place in some areas. For example, the contract of a nurse who will be working with low income communities and children could be required to take a CME programme on health promotion or prevention of obesity or childhood obesity, issues that are growing concerns in Italy and known to be associated with poorer income groups.

Strengthening quality assurance: International experience and recommendations for Italy

While the basics of good quality assurance for Italy's medical workforce appear to be in place, and functioning well, Italy may not be keeping up with other OECD countries in taking steps towards a more modern, rigorous system of quality assurance. Internationally, there is a growing realisation that the historical organisation of the medical profession, and reliance upon self-governance and individual physician integrity and responsibility, is not sufficient or appropriate for new models of health care delivery and medical practice, and additional checks and standards need to be introduced. There are some areas in which Italy could take action – drawing on examples from other OECD countries – and in doing so drive improvements in the quality of care delivered by medical professionals.

Moving beyond a strengthening of the existing CME system, Italy would do well to consider the experiences of countries which have introduced recertification or relicensing protocols for physicians. Relicensing is increasingly seen as an important workforce quality assurance measure, backed by the argument that the awarding of a licence to practice at the end of medical education is not sufficient to ensure high quality care across a quality assurance career of fifty years or more, particularly considering the rapidly changing nature of health care delivery (for example changing evidence bases for treatments, pharmaceuticals, new technologies). In a number of countries completion of CME activities has been linked to

re-issuing of the licencing to practice (relicensing), as a means of enforcing CME participation. For Italy, interesting examples are found in the Netherlands and in the United Kingdom, where highly comprehensive systems of re-licencing have been introduced. These re-licencing procedures include more rigorous appraisal aspects such as comprehensive peer-review, the requirement that physicians have reflected upon and changed their practice through activities that improve professional competence – often referred to as "continuing professional development", and that physicians can demonstrate that they have reflected upon feedback from patients and colleagues. Such systems could be seen as examples for Italy to learn from and follow in coming years.

One further challenge that Italy faces, and that medical professionals practicing in Italy face, is a lack of data that tells authorities or individual physicians anything about the quality of care that they are delivering. At present no physician-level quality or outcome indicators are collected. Some small scale initiatives around quality of care indicators do appear to be in place, and are encouraging. For instance, a small number of physicians are participating in outcome indicator collection as part of an initiative launched by the scientific society for general practitioners, SIMG as part of which they get feedback on their performance and outcomes. More widespread collection of physician-level or practice-level quality and outcome indicators would be highly desirable, if challenging to introduce. There are obvious anxieties about ranking of practitioners, and exposure to criticism, blame and legal liability. There are avenues for Italy to explore in this respect, for example the partial anonymisation of practitioner-level data, or initially use of data privately amongst physicians but not publically. Whilst physicians may feel anxious about such collections, in other countries – for example a very impressive data collection and benchmarking scheme in primary care in Denmark – doctors have in fact been pleased with the availability of data that allows them to reflect upon their own practice, and compare it to that of their peers. Indeed, availability of outcomes data, and transparency of data, can help practitioners with self-reflection and improvement in their own care. More comprehensive data collection could benefit both patients and the Italian health system, as a quality improvement measure, but also physicians, if they are encouraged and supported in reflecting on their own results in a productive way.

Measuring and improving quality in Italy's regionalised health system

Italy is a very heterogeneous country, in both social and economic terms. The autonomous province of Bolzano near the Austrian border has a GDP per capita of USD 39 170, more than double that of Campania's USD 17 120. The difference in unemployment rate between these two areas

is even more stark, at 4.1% and 19.3% respectively. Such heterogeneity is reflected in the health system. Since the reforms federalising health care delivery a decade ago, 21 distinct health systems have developed – with markedly divergent patterns of care and outcomes. Such variation in activity and outcomes across regions is both inefficient and inequitable, a reality which is not lost on the public given the large number of patients crossing regions in search of health care. Balancing the advantages of decentralised governance against the needs to ensure equitable quality of care is a persistent and complex challenge.

In an effort to moderate the less advantageous aspects of this heterogeneity, Italy has established a number of mechanisms to try and ensure an evenness of approach to quality measurement and improvement across its R&AP. The *Unified Conference between the State, Regions, Municipalities and Local Authorities*, for example, was established in 1997, a key institutional mechanism to co-ordinate the relationships among the central government, R&AP and local authorities. It addresses issues such as administrative simplification, probity, quality of services, impact analysis and feasibility studies. Other key mechanisms include discussion and ratification of the *Patto per la Salute* which supports regions to develop a three-year health plan, in conjunction with local priorities, and analysis and discussion of the *Griglia LEA* and PNE data.

Regional variations in the health care practice and outcomes are significant, across regions as well as within them

Despite these efforts towards harmonisation, regional differences in health care quality across Italy remain significant. The proportion of patients receiving coronary angioplasty within 48 hours of a heart attack, for example, varies from ~15% in Marche, Molise and Basilicata to almost 50% in Valle d'Aosta and Liguria. Variation *within* R&AP is even more profound: the same indicator ranges from ~5% to over 60% when disaggregated to ASL-level. 30-day mortality after a heart attack, disaggregated to ASL level ranges from ~5% to 18% with a national mean of 10%. The north-south differential is also reflected in indicators linked to the quality of primary care. Hospital admissions for COPD are lowest in Piemonte (1.51 per 1 000 population, age-sex adjusted) and Trento (1.55) and highest in Puglia (3.84), Campania (3.13) and Basilicata (3.07). The same is seen for childhood asthma, where admissions are fewest in Toscana (0.21 per 1 000 population, age-sex adjusted), Veneto (0.23) and Valle d'Aosta (0.25) and most frequent in Sicilia (0.95), Abruzzo (0.82) and Sardegna (0.74).

The fact that variation in health care processes and outcomes is greater *within* R&AP than across them underlines the need for R&AP to performance manage local hospitals, clinics and professionals in a consistently effective manner. There is great variation, however, in the way health system performance is managed across Italy. Regions such as Lombardia, Marche, Sicilia, Trento, Umbria, Valle d'Aosta, Basilicata and Toscana use local quality of care information in a systematic fashion, including using performance metrics in their contracting with service providers and sometimes linking to external organisations (such as universities) for expert technical support. Other R&AP use local performance measures in a more ad hoc fashion. Abruzzo, Calabria, Campania, Molise and Piemonte, for example, have been noted to use health data for mainly epidemiological purposes, with infrequent use of quality and outcome measures to inform local policy debate or negotiation with service providers.

Work to develop a more consistent regional approach to performance management should be prioritised

The Italian Ministry of Health, together with the Italian regions and other key national agencies such as AGENAS should work together to define a more consistent regional approach to the performance management of health systems. While it is understandable that national authorities have avoided imposing one or other model, there is scope to work toward a more consistent national approach. National authorities should not be seeking to performance manage R&AP per se, but to support R&AP to performance manage the local hospitals, clinics and professionals in their territory in an effective manner.

A more consistent and ambitious approach would encourage all R&AP to see performance management as a collective exercise that influences policy and leads to continuous quality improvement, rather than as a technical problem that involves few stakeholders and leads to few policy-relevant outputs. Performance management should be multidimensional, focus on outcomes and equity (rather than activities and outputs), be widely disseminated and supported by a dedicated performance management unit within each R&AP. Consistency along these lines would still allow ample scope for a regionally tailored approach, guided by local priorities. Key themes to address would be the extent to which performance metrics are used in contracting with hospitals, other providers and their management boards, and the extent to which performance metrics are made available for public scrutiny and open comparison.

Denmark offers a model of considerable interest. There, the *Danske Regioner,* or association of Danish regions, has agreed a common approach to performance management. Although national legislation increasingly sets out requirements on topics such as waiting times, safety of pharmaceuticals and adverse event reporting, more detailed regulation is carried out through the agreement between the national level, the regions, and the municipalities. Quality targets are an increasing feature of these agreements. The agreement on the regional budget for 2013, for example, stipulates a 10% decrease in hospital standardised mortality rate and a 20% decrease in adverse events for the next three years. Although these agreements are not legally binding, they are considered to be an important mechanism to govern the Danish health care system, whilst leaving sufficient room for regional and local adaptations according to needs.

Finances should also be used to incentivise quality improvement

Better use of financial resources and incentives should be developed alongside better use of information to improve the quality of care in Italy's poorer performing R&AP. Poorer areas do from time-to-time receive additional block grants to support particular needs or finance new initiatives. These grants should be used to incentivise quality improvements where possible. This could be through ensuring that each grant has a ring-fenced element for impact evaluation, or includes specific resources to extend the quality-improvement infrastructure or personnel, or making part of the grant conditional upon achieving certain targets or implementing new processes.

A second aspect concerns the regional resource allocation formula. Whilst it is clearly important that regional allocations are matched to need as closely as possible, and reward efficiency, they should also support and reward quality. Less efficient R&AP are likely to see their budgets being squeezed – whilst efficiency gains are being sought, adequate safeguards should be in place to ensure that access to care and the quality of care do not suffer. An important action in this regard would be to monitor the impact of financial consolidation on the health of vulnerable individuals and communities.

Sweden demonstrated deployment of both informational and financial incentives during its recent reforms to drive better integrated, community-based care. In 2011, for example, the government allocated SEK 325 million (EUR 35 million, USD 47 million) to counties that demonstrated a statistically significant improvement in reducing unnecessary hospitalisations. Monetary rewards are given to counties that reduce the use of inappropriate drugs, reduce the inappropriate combinations of drugs and the use of psychotropic drugs among elderly people in institutional care.

Strengthening and clarifying the role of national authorities, whilst redefining mutual accountabilities between the centre and the regions and autonomous provinces, will be important

The regional structure of Italy's health service is well established and should be valued. In parallel, however, there is scope to develop the responsibilities and capacities of some national authorities, particularly those whose role is to support R&AP. Even in highly decentralised systems, it is clear that central authorities have several important roles and functions. These include producing overviews of current knowledge, current practice or current performance; setting standards, on performance or performance reporting, for example; and developing tools such as evaluation frameworks, IT platforms, deep dive teams to visit and support areas with special needs.

The Norwegian Association of Local and Regional Authorities (KS) is a national interest association for municipalities, counties and public enterprises which demonstrates many of these functions. Recent work has sought to strengthen primary health care services, for example, with an emphasis on patient participation, prevention, rehabilitation and the use of new technologies. These are all priority activities for the Italian health system as well. The Norwegian Association actively communicates with the members, disseminates information and facilitates the exchange of experience.

In Italy, there is scope to consider developing the role of AGENAS more fully, modelling it on equivalent organisations in other countries such as *Danske Regioner* in Denmark, or the KS in Norway. Examples of quality improvement work which AGENAS is well placed to undertake include:

- development of a nationally consistent approach to performance management and quality improvement cycles across regions
- thought-leadership around developing a more consolidated national health information infrastructure, for example, on how a national institute for health information might be created
- technical advice to support national planning, including possible revision of the formula used to allocate regional resources
- thought-leadership around the next phase of minimum quality standards, including extensions to the *Griglia LEA* and development of a more rigorous health inspectorate function, at national or regional level.

Shifting governance from a financial focus to give equal prominence to quality improvement needs to happen at all levels of government

Underpinning all of these recommendations must be a commitment from both national and regional authorities to equal commitment to quality improvement as to financial control. In particular, the *Piani di Rientro* (Recovery Plans) of recent years represents an abrupt rebalancing of central versus regional authority in financial terms. It is essential that governance driven by quality imperatives is given equal prominence. The scaling-back of performance management capacity in some regions as a result of the crisis underscores the importance and timeliness of this argument. Although this shift is needed at all levels of government, clear leadership from central authorities will be essential.

National authorities such as the Ministry of Health and AGENAS should develop a stronger operational role around monitoring health care quality and outcomes as described above. The same priority needs to be reflected at regional level. Whilst some regions do this already, other regions need targeted support to build robust and effective quality governance. In particular, regions should be encouraged or required to publish regular quality improvement plans with specific goals and milestones and national authorities may wish to establish performance contracts with regional authorities on this basis.

Recommendations for improving health care quality in Italy

Italy's priority must be to move from a system that prioritises budgetary control, to one that gives an equal priority to quality. Informational and financial incentives must be aligned to the outcomes and quality of care and a more consistent approach to quality monitoring and improvement across the country is needed.

1. Strengthen quality governance in health care by:

- Ensuring more consistent application of national quality initiatives at regional level, especially those around accreditation and minimum standards. Creation of a national health inspectorate would give this function a secure base.
- Considering additional, earmarked resources to encourage the use of quality guidelines at regional level. Strengthening the capacity of the National Guidelines System to disseminate guidelines and monitor their impact will support their implementation.
- Consolidating and extending the health service information infrastructure. In particular, expanding the range of indicators collected in the *Griglia LEA* and making better use of PNE indicators in contracting with providers is needed.

Recommendations for improving health care quality in Italy *(cont.)*

- Getting more value out of data that currently exists by overcoming barriers to linkage across databases. Standardisation of the approval process to link and analyse health data and diffusion of best practices in the processing of personal health information are needed.
- Enriching the possibilities for patients and the public to make use of quality data and to be involved in quality assurance of health care. In particular, there is a need to conduct patient satisfaction surveys more extensively and systematically.
- Going further on the excellent patient safety work that Italy has already started. National targets, underpinned by focused, grass-roots campaigns to change practice at ward and clinic level are now needed.

2. Improve the quality of primary care services and community care services by :

- Strengthening the information infrastructure underpinning quality and community care, for example by collecting indicators around the management of chronic conditions, co-ordination between levels of care or patient's experience with the new community networks or associative forms of PCPs.
- Expanding community care networks and community hospitals throughout the country, through the provision of financial resources, the development of guidelines for the setting up of these community services or organisational support to encourage the use of chronic care models.
- Establishing smarter payment systems that reward quality, activity or the achievement of national objectives using the fee-for-service component. Specific attention should be directed toward preventive strategies, the efficient management of chronic disease or better co-ordinated care.
- Encouraging compliance with clinical guidelines, through financial and informational incentives. Produce guidelines that address care for elderly patients, patients having multiple morbidities or care co-ordination to best response to the challenges brought by the demographic and epidemiological changes.
- Improving the role played by primary care providers in primary and secondary prevention. Developing educational programmes in disease prevention and early diagnosis through continuing medical education (CME) programmes, or investing more in the nursing workforce are possible avenues for consideration.
- Developing national standards for the primary care sector and broadening the focus of the new harmonised accreditation programme to primary and community care services including the new suite of community health networks and community hospitals.

Recommendations for improving health care quality in Italy *(cont.)*

3. Improve medical education to strengthen the quality of Italy's health care workforce by:

- Considering whether procedures around entry into medical school, qualifying examinations, and the move to specialist schools promote the qualities – communication, team work, self-reflection on practice and competency – required of Italian health professionals working in the system today.
- Encouraging medical schools to promote high quality teaching and learning methods, moving away from traditional didactic approaches and exploring active and participatory learning approaches.
- Maximising the positive impact of CME by incentivising CME activities that match well with health professionals' desired skill-set, and with weaknesses in their existing practice. Considering introducing more modern forms of continual assurance of workforce quality, including relicensing which includes more rigorous appraisal aspects such as comprehensive peer-review and pushes medical professionals to reflect on their strengths and shortcomings.
- Exploring ways of introducing physician-level or practice-level quality and outcome indicators, which can help physicians reflect on and improve their own care, if they are encouraged and supported in reflecting on their own results in a productive way.

4. Strengthen the measurement and improvement of health care quality in Italy's regionalised health system:

Improve health care quality and health care outcomes in poorer performing R&AP by:

- Developing a more consistent approach across R&AP to using information to manage performance and strengthen local accountability. Key themes to address would be the extent to which performance metrics are used in contracting with hospitals, other providers and their management boards, and the extent to which performance metrics are made available for public scrutiny and open comparison.
- Working toward a less fragmented information infrastructure underpinning the Italian health system, perhaps by creating a single national institute for health system information to collect, analyse and disseminate health system metrics.
- Ensuring that regional resource allocation has a focus on quality, and is linked to incentives for quality improvement. This could be through ensuring that each grant has a ring-fenced element for impact evaluation, or includes specific resources to extend the quality-improvement infrastructure or personnel, or making some, or all, of the grant conditional upon achieving certain targets or implementing new processes.
- Drawing on innovative models of resource allocation in other countries to ensure that allocation matches need as far as possible and, where appropriate, reward quality.
- Monitoring the impact of financial consolidation and introduction of co-payments on the health of vulnerable individuals and communities.

Recommendations for improving health care quality in Italy *(cont.)*

5. Strengthen the regional approach to health care governance and delivery in Italy by:

- Developing the responsibilities and capacities of the national authorities whose role is to support the R&AP. In particular, there is scope to consider developing the role of AGENAS more fully, modelling it on equivalent organisations in other countries such as *Danske Regioner* in Denmark or the *Kommunesektorens organisasjon* in Norway.
- At the same time, be constantly alert to any tensions or inefficiencies that may arise as a result of multilevel government. In particular, gaps in accountability, information, capacity or funding should be identified and addressed.
- Reframing governance as a whole such that quality improvement is emphasised as much as financial control across all levels of government. The Ministry of Health should consider deepening and extending the range of indicators it monitors through the *Griglia LEA*. At regional level, quality improvement plans should be agreed with specific goals and milestones.

From:
OECD Reviews of Health Care Quality: Italy 2014
Raising Standards

Access the complete publication at:
https://doi.org/10.1787/9789264225428-en

Please cite this chapter as:

OECD (2015), “Assessment and recommendations”, in *OECD Reviews of Health Care Quality: Italy 2014: Raising Standards*, OECD Publishing, Paris.

DOI: https://doi.org/10.1787/9789264225428-4-en

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