

Strengthening Territorial Healthcare and Digital Transformation in Italy's National Health System: Insights from an Interview with Professor Pierpaolo Sileri

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ABSTRACT

The COVID-19 pandemic represented the starting point for an internal debate on the structural weaknesses of Italy's territorial healthcare system and the urgent need for long-awaited reforms. It provided a unique opportunity to reshape the Italian National Health System (NHS), shifting toward more localized care models and accelerating the adoption of digital health technologies. This article is based on an interview conducted by the author, Matteo Maria Cati, with Professor Pierpaolo Sileri, former Deputy Minister and Undersecretary of State for Health, who shares grounded perspectives on how the country's healthcare reforms have taken shape, especially in relation to the rollout of Community Health Centers (Case della Comunità) and the evolving integration of telemedicine. The findings and insights gained from this interview provide an in-depth analysis of key barriers and opportunities in the implementation of healthcare reforms, particularly addressing the uneven healthcare workforce distribution across regions. The article further explores how digital health tools could help reduce these longstanding disparities. Special attention is given to the National Recovery and Resilience Plan (PNRR), funded through the European Union's Next Generation EU program, which is acting as a key driver in modernizing Italy's healthcare infrastructure (Notarnicola, et al. [1]).

Keywords: National Health System (SSN); Healthcare Reform; Community Health Centers; Telemedicine; Health Policy; Italy; PNRR

Abbreviations: NHS: National Health System; PNRR: National Recovery and Resilience Plan; HDI: Human Development Index

Introduction

During the COVID-19 pandemic, all the weaknesses of Italy's healthcare system emerged in their gravity, revealing disparities in access, capacity, and ability to respond to the population's health needs, particularly in rural and underserved regions. Hospitals in many parts of the country, especially in the south and inner areas, were quickly overwhelmed, and community-based healthcare services were often ill-equipped to respond effectively. These shortcomings underscored the urgent need for systemic reform, not only to respond to the immediate crisis but also to build long-term resilience in the healthcare infrastructure (Zhang, et al. [2]). To tackle long-standing problems in

healthcare, the Italian government rolled out major reforms. The goal: shift care away from big hospitals and bring it closer to people's daily lives. At the heart of this plan are new Community Health Centers (Case della Comunità), local hubs meant to connect hospitals, family doctors, pharmacies, social services, and neighborhoods. These centers do two key things: they offer medical care and also work to build real, lasting relationships between healthcare workers and the people they serve. By putting different services under one roof and focusing on ongoing care, the idea is to move toward a system that prevents illness and supports patients early, right in their own communities (Leclercq, et al. [3]).

A major driver behind these reforms is the National Recovery and Resilience Plan (PNRR), backed by the EU's Next Generation funding. It's a huge deal, one of the biggest health investments Italy has seen in a long time. A large part of the money is going into fixing up hospitals and clinics, expanding things like telemedicine and digital health records, and building up local care networks so people everywhere can get the help they need. The goal isn't just better tech or smoother operations, The goal is to adapt the system to contemporary health challenges, particularly the aging population and the rising burden of chronic diseases. (WHO, [4]). But even with all these plans in place, big roadblocks remain. One of the toughest? The uneven spread of healthcare workers—especially nurses, across the country. A 2025 study by Notarnicola, et al. [1] lays it out clearly: richer northern regions have way more nurses, while the south, which tends to be poorer, struggles with constant shortages. And this isn't just a paperwork issue. It means longer waits, fewer services, and worse care for millions of people. In some areas, folks have to travel hours just to see a doctor or get basic treatment, or skip care entirely. The gaps that were already there before COVID have only gotten worse (OECD, [5]). There's also a big risk that the shortage of healthcare workers could derail the very reforms meant to fix these problems.

Community Health Centers aren't just about having doctors and nurses, they also need full teams: social workers, psychologists, admin staff, and more. Without enough people, even the best-designed clinics and fancy tech won't get the job done. So while the PNRR opens the door to real change, its success depends on whether Italy can sort out the deeper issues with staffing and infrastructure. Fixing these problems isn't just about logistics—it's about doing right by the people. The future of Italy's health system, especially after COVID, depends on it (McKinsey Health Institute, [6]).

Regional Disparities in Healthcare Workforce Distribution

Even though Italy has a universal healthcare system, there are still big gaps in how healthcare workers are spread out, especially when it comes to nurses. A 2025 study by Notarnicola, et al. [1]. took a close look at this using the Gini coefficient, a common way to measure inequality. Nationally, they found a Gini score of 0.136 for nurse distribution, so not extreme, but still a clear sign of imbalance. What stood out even more was the link between how developed a region is and how many nurses it has. The study showed a strong correlation: the higher a region's Human Development Index (HDI), the more nurses it tends to have. In short, richer regions get more care—poorer ones fall behind (Notarnicola, et al. [1]). These staffing gaps have real effects. In poorer southern regions and remote rural areas, not having enough nurses means longer waits, slower treatments, and less access to basic care. Meanwhile, places like Lombardy and Emilia-Romagna in the north, where the economy's stronger, have way more nurses and better coverage overall. That kind of imbalance just makes health inequality worse and makes it harder to offer the same level

of care across the country (European Commission, [7]). To fix this, the study points to a few key solutions: offer better incentives to get nurses where they're needed most, let regions do more of their own hiring, and create plans tailored to local needs. Without that kind of targeted action, true equity in care will stay out of reach (OECD, [5]).

Telemedicine: From Emergency Response to Long-Term Integration

The COVID-19 pandemic pushed countries everywhere to start using telemedicine fast—Italy included. What started out as a quick fix to keep care going without in-person visits quickly turned into something bigger. Telemedicine became a key part of how healthcare was delivered. Professor Pierpaolo Sileri, who held top roles in the Health Ministry during the Conte II and Draghi governments, said the crisis showed that telemedicine wasn't just doable—it could actually change the way care works for good (WHO, [4]). Still, turning telemedicine from a short-term solution into a core part of Italy's National Health System (SSN) isn't simple. According to Sileri, making it stick means tackling three big areas that are crucial for long-term success:

Building the Right Infrastructure

For telemedicine to really work, strong digital infrastructure is a must. That means fast internet, secure cloud systems, and, just as important, making sure different platforms can actually talk to each other— especially the Electronic Health Record system (FSE). If systems stay disconnected, care gets messy and patients slip through the cracks (Zhang, et al. [2]).

Training and Digital Know-How

It's not just about the tech—it's about people knowing how to use it. Doctors and nurses need solid training to give care online, and patients—especially older folks—need to know how to log in, talk to their doctor, and use the tools. Right now, the digital gap between generations and regions is still pretty wide, and that's a major roadblock (Leclercq, et al. [3]).

Changing the Rules and the Mindset

For telemedicine to stick, the rules need to catch up. Remote visits have to be treated the same as in-person ones—legally, medically, and financially. But it's not just about laws; people's attitudes need to shift too. Some doctors and patients still think online care isn't "real" care. That mindset has to change if this is going to be a long-term solution (McKinsey Health Institute, [6]).

Telecardiology: A Scalable Model for National Integration

Telecardiology is one part of telemedicine that's really proving its worth. It uses things like wearable monitors and remote check-ins to keep tabs on people with heart issues. That means doctors can spot problems early, patients stick to their treatment plans better, and hos-

pitals aren't slammed with avoidable readmissions. Everyone stays more connected—patients, specialists, and local clinics. Professor Sileri sees this as a model worth copying, especially for places out in the sticks where it's tough to get to a heart doctor. Now, someone living way out in the countryside can send an ECG straight to a cardiologist in a city—no long trip needed. It's faster, easier, and people like it more. It takes pressure off the system and gets folks the help they need, which is why it's a strong candidate to roll out across the whole country (Leclercq, et al. [3]).

The Role of Next Generation EU and the PNRR in Healthcare Transformation

These big changes are getting off the ground thanks to funding from the EU's Next Generation initiative, especially through Italy's National Recovery and Resilience Plan (PNRR). The plan puts billions into fixing up Italy's healthcare system, with a big focus on going digital and making care more equal across regions. Under the PNRR, Italy's putting money into:

- Building up telemedicine services
- Renovating hospitals and local health centers
- Improving electronic health records
- Strengthening care networks across regions
- Training and hiring more healthcare workers

These aren't one-off projects—they're part of a larger plan to make healthcare stronger, fairer, and more prepared for the future, in line with Europe's post-COVID recovery goals (European Commission, [7]).

Discussion: What's Ahead for Italy's Health System

Italy's got a real shot at reshaping how care works—but it's not going to be easy. The biggest challenge? Not enough healthcare workers. Without enough trained people in the right places, all the shiny new tools and buildings won't mean much. There's also the tech gap between regions. Some areas have fast internet and people who know how to use it. Others—especially in the south or in rural towns—don't. That makes it harder to roll out things like telemedicine in a fair way. Another big issue is the age gap in digital skills. Older folks, who often need the most care, are the ones least comfortable with

digital tools. If they can't figure out how to use telehealth services, they might miss out. So, public health efforts need to step up and help people—especially seniors—get the hang of it. Professor Sileri makes it clear: these new Community Health Centers and telemedicine systems can't just be emergency fixes. If they're built right and used well, they could seriously improve access, cut costs, and make care more personal. They could be the backbone of a better, more patient-centered health system.

Conclusion

COVID hit Italy's health system hard. It showed where things were broken—but it also pushed the country to start fixing them. Since then, some big changes have taken root, especially in local healthcare and digital tools. Community Health Centers and telemedicine aren't just add-ons anymore—they're becoming core parts of how care is delivered. Done right, they could help build a system that's fairer, stronger, and better at meeting people's real needs. But getting there won't be easy. Italy still has to deal with uneven access across regions, a shortage of healthcare workers, and big gaps in digital skills—especially for older folks. The money and support from the PNRR and the EU give Italy a rare chance to lock in these reforms for good. This could be a turning point: either build something lasting or risk sliding back to the old problems. If Italy gets it right, it could lead the way in showing how to mix old-school care values with new tech to face the future.

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