

National Plan for Innovation of the Health System based on -omics sciences in Italy



TYPE
STATUS

Policy program

LAST
UPDATE

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ITALY • NATION-WIDE

PROBLEM & OBJECTIVE

PROBLEM

The advancements of omics sciences and related applications require the development of policies for their appropriate integration in the healthcare system. Their adequate implementation improve the health of the individual and the population.

OBJECTIVE

The National Plan aims to:

- 1) transfer genomic knowledge into the practice of health services, in a patient-centric approach;
- 2) increase the effectiveness of prevention, diagnosis and treatment of diseases at a higher burden, considering individual differences in genetic heritage, environment and lifestyles, and providing professionals with the resources needed to customize interventions;
- 3) promote the cultural, scientific and technological innovation of the healthcare system.

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KEY COMPONENTS / STEPS

- The 2010–2012 National Prevention Plan, published by the Ministry of health and the regions, defined the governance planning of predictive medicine in Italy, based on genomics.
- The 2011–2013 Technical Document for the reduction of the burden of cancer diseases aimed at developing tools and processes to use genomic-based knowledge in decision-making and to include Public Health Genomics in all policies.
- Based on these two policy documents, in 2013 the National Plan for Public Health Genomics (NP-PHG) was published by the Ministry of Health, with the support of the Italian Network for Public Health Genetics (GENISAP Network).
- The 2013 NP-PHG aimed to provide general guidelines to facilitate the governance of genomics in public health in the national health system, based on three major pillars: 1) the systematic health technology assessment of genetic tests for complex diseases; 2) the promotion of genomics education of healthcare professionals 3) promotion of basic genomic health literacy in the general population.
- The second milestone in the policy of public health genomics was the publication, of the National Plan for Innovation of the Health System based on omics sciences, in 2017.

KEY CONTEXTUAL FACTORS

- The development of the National Plan for Innovation of the Health System based on omics sciences, was based on: WHO Global Action plan for the prevention and control of non-communicable diseases 2013–2020; WHO The Human Genetic Program; European Council Conclusions on personalized medicine for patients; and the Italian National Plan for Prevention 2014–2018.
- The governance structure of the Plan included the following actors: Genomic Table of the National Institute of Health; Interinstitutional Coordination, National Health Institute, Stakeholder Forum, GENISAP, interregional coordination, and intra-regional coordination.
- The Italian Centre for Disease Prevention and Control (CCM) act as a technical advisor for all the genome related technologies with a potential health related application.

MAIN IMPACTS / ADDED VALUE

The 2017 National Plan:

- Outlines the ways in which the innovation in omics sciences should reshape the National Health System (NHS), in the areas of prevention, diagnosis and care.
- Supports the NHS to increase the awareness of all stakeholders on the innovation of omics sciences and its effects on the health of individuals and populations enhancing the capacity of the society to cope with the cultural, ethical, psychological aspect of the 'genomic revolution'.
- Supports the NHS to put in place a strategy of "government of innovation" of genomics and related fields.
- Supports the NHS to evaluate and implement the opportunities currently offered by genomics and by the other omics sciences for the health of the population.
- Provided the main indications to foster research and innovation in big data; literacy technologies; developing sustainable national health system through pre-primary and secondary prevention; more efficient pharmacogenomics research; and undiagnosed patients.

LESSONS LEARNED

- Planning, elaboration and implementation of national policies is one of the drivers needed for the adequate integration, implementation and use of genomics approaches in the health care sector and the eventual achievement of significant benefits in terms of both population health and economic system.
- The plan highlighted the functions of the central government and actions to support the implementation on the National Health System.
- The appropriate integration of genomics in healthcare requires that policy-makers and stakeholders are aware of the potentials and limits of the use of genomics in disease risk prediction, diagnosis and treatment.
- The effective implementation of genomics in healthcare requires the engagement of skilled healthcare professionals and well-informed citizens in grasping the potential benefits and tackling the issues of a personalised healthcare.

REFERENCES & DOCUMENTATION

- Intesa Stato Regioni
- Policy of PHG in Italy
- 2017 Italian National Plan
- Distance learning course Italy 2015
- Genetics and Genomics: The Effectiveness of an Italian Distance Learning Training Course
- Policy di genomica in sanità pubblica

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