Sustainability in quality and health safety: interface of public policies in Portugal

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ABSTRACT
The objectives of public health policies are, among others, sustainability, results and quality. The objective of the article is to share the analysis carried out on the interface of public policies for quality and safety in health and for sustainability. Methodology: document analysis and comparative analysis were used. The theoretical concepts of public health policies for quality and safety in health and policies for sustainable development in health were used. Results: integrating objectives for sustainable development (economic, social and environmental factors) in public policies and in the operationalization of sustainability policy measures in health, along with public policies for quality and safety in health. Conclusion: the quality health system presents an interface between sustainability and quality and safety. A formulation of public health policies for sustainability in the Portuguese health system, implementation, monitoring and evaluation, including external evaluation, will be decisive for the health system. Public health policies for the sustainability of the health system must be implemented along with public policies for quality and safety in health, with the involvement and participation of health professionals.

Keywords: public health policies, quality and safety, sustainability.

1 INTRODUCTION

Quality and safety in the health system are an ethical obligation because they contribute decisively to the reduction of avoidable risks, to the improvement of access to health care, innovation choices, equity and the respect with which this care is provided (Dispatch n.º 5613/2015 of May 27).

The visibility of safety was given in the publication of the report To Err Is Human: Human: Building a Safer Health System (1999) referring to data from the state of New York, analyzed by the Institute of Medicine (IOM), which included an estimate of 44,000 to 98,000 deaths per year due to incidents and adverse events (AE) related to health care (Kohn, Corrigan and Donaldson, 2000).

The size of this estimate gained visibility and triggered a global movement in favor of initiatives in the field of quality and safety in health. That report emphasized the dimension of error and harm in healthcare and the fact that these problems were largely attributable to the characteristics of healthcare delivery systems, rather than their attribution to individual healthcare professionals (Quick O., 2017).
Patient Safety, as a critical dimension of Quality in Health, which has other attributes mentioned below, is a priority for Global Health (Beuzekom M. Van, Boer F., Akerboom S., Hudson P., 2010).

The provision of quality and safe health care to citizens promotes economic growth, which represents environmental costs due to the resources involved, from water to energy and the effects on the contamination of the atmosphere and soil.

In the literature, the discussion of sustainability has been increasing over time, but without reaching consensus on its definition. Thus, the use of terms such as "continuation", "maintenance", "durability", "adoption", "incorporation", "appropriation", "continuation", "integration", "institutionalization", "routinization", "long term" and "adherence", among others, which have been used to describe sustainability (Shediac-Rizkallah M., Bone L., 1998, Pluye P, Potvin L., Denis J., 2004, Scheirer M., 2005 e LaPelle N., Zapka J., Ockene J., 2006, referred to by Walugembe et al., 2019).

In this article, the term sustainability is used in line with the United Nations Sustainable Development Goals (SDGs).

In 1987, the report Our Common Future or Brundtland, by the World Commission on Environment and Development (1987), used the expression “sustainable development” for the first time, as a way that “the needs of current generations must be met without compromising the possibility of meeting the needs of future generations” (European Union, 2006). This strategy is based on the one defined in 2011, but at a global level, on the knowledge that in order to improve the quality of life of current and future generations, it is necessary to promote and implement measures with a focus on sustainable communities, with the capacity to manage and use resources effectively and efficiently and to emerge the full potential, within the scope of ecological and social innovation in the economy (European Union, 2006).

The health sector is responsible for the emission of greenhouse gases (which cause global warming) and pollution by non-greenhouse gases (toxic to human and environmental health). The Yale Program on Health Care Environmental Sustainability (Y-PHES) of the Center on Climate Change and Health reports that the healthcare industry is one of the top environmental pollutants in the US “The harm to public health from exposure to non-greenhouse-related emissions alone has been estimated at 405,000 disability-adjusted life years (DALYs) annually. Greenhouse gas emissions could contribute to an additional 209,000 DALY per year” ¹.

The burden of disease caused by greenhouse gas and non-greenhouse gas pollution is as proportionate in magnitude as the medical errors reported in the report To Err is Human: Building a Safer Health System ².

¹ Sustentabilidade em Saúde e Saúde Pública | Escola De Saúde Pública De Yale
² Sustentabilidade em Saúde e Saúde Pública | Escola De Saúde Pública De Yale
2 PORTUGUESE HEALTH SYSTEM

In the Portuguese Health System (SSP), three systems coexist: (i) the National Health Service (SNS) (ii) health subsystems (special social health insurance schemes for certain professions) and (iii) private health insurance.

On September 15, 1979, through Law n.º 56/79, the SNS was created, the pillar of the Portuguese health system, with the aim of ensuring the right to health services to all Portuguese and foreign citizens, regardless of their economic status – universal, general and free, referred to by Martins d’Arrábida C. (2023).

The financing of the SNS is ensured by funds from the State Budget, and the allocation of tax revenues for this purpose may be determined, without prejudice to other revenues provided for by law, regulation, contract or other title” (Base 23, point 1 of the Basic Health Law), referred to by Martins d’Arrábida C. (2023).

The SNS, created by Law n.º 56/79 of September 15, “... articulates with the existence and operation of unofficial institutions and forms of private activity within the scope of the health sector, subject to the discipline and control of the State, under the terms of the Constitution” (Article 52 of Law 56/79).

The state ensures the planning, regulation, evaluation, auditing, supervision and inspection of SNS entities and the private and social sector (Base 6, point 3 of the Basic Health Law).

The “Autonomous Regions of the Azores and Madeira are responsible for the organization, operation and development of regional health systems, the regional adaptation of this law and the definition and implementation of the respective health policy” (Base 7, point 1 of the Basic Health Law).

3 PUBLIC POLICIES FOR QUALITY AND SAFETY IN HEALTH

The quality of health care involves the following attributes: efficacy, effectiveness, efficiency, optimization, acceptability, legitimacy and equity (Donabedian A., 1990). The Institute of Medicine (IOM, 2001) defined the dimensions of health care quality as safe, effective, patient/family centered, timely, efficient and equitable (IOM, 2001). Quality health care is effective, safe and person-centred (Carinci F. et al., 2015, WHO, 2018).

The mention attributed to the Hippocratic Oath, in the 5th century a. C. reveals the concern with the health and safety of the patient, related to the promise to abstain from doing harm (Farnell, Lewis, 2004). Patient Safety is a serious public health problem, as a strategy for quality in health, it is a priority for Global Health.

European Commission (2010) defined [Good quality care is] health care that is effective, safe and responds to the needs and preference of patients (Busse R. et al., 2019).
At the international level, the World Alliance for Patient Safety, launched by WHO in 2004, aimed to organize concepts and definitions in the area of patient safety and proposed policy measures to reduce risks and adverse events (WHO, 2005).

The dissemination of OECD, World Health Organization (WHO) and European Union (EU) policies have been influencing the formulation and implementation of public policy measures for quality and safety in health and how health systems can be evaluated in their sustainability, and in the quality of health care.

Public health policies for quality and safety in health, as a process, constitute therecognized priority choices. These choices are expected to be central to the analysis of their evolution. Legislation introduced is also intended to benefit or impact voters in some way (Peters B., 2015).

In Portugal, the areas of planning and programming of the national policy for quality in the health system have, since 2009, been developed by the Directorate-General for Health (DGS), through the Department of Quality in Health (DQS), which is responsible for coordinating the implementation of the National Strategy for Quality in Health (Dispatch no. 14223/2009, updated by Dispatch no. 2020 (Order No. 1400-A/2015).

Under the Memorandum of Understanding (MoU), a economic adjustment programme with the Troika (the European Commission, the European Central Bank and the International Monetary Fund, which took place between 2011 and 2014, in Portugal, the guidelines for the implementation of public health policies for Quality and Patient Safety have been implemented by the Quality and Safety Committees (CQS), created by Dispatch No. 3635/2013, of March 7, with a primary role in the implementation of public policies formulated, under the coordination of the General Directorate of Health, through the Department of Quality in Health.

Public policies for quality and safety in health in the health system should be based on the defined level of quality and safety to be achieved and outlining the main priorities at the national level (Martins d’Arrábida C., 2023).

4 PUBLIC POLICIES FOR SUSTAINABILITY

Sustainability is one of the purposes of public health policies, and can be analyzed by the evolution of health expenditure, on the one hand, the costs of the increased demand for health care and human resources and, on the other hand, the costs related to the evolution of health technologies, the increase in life expectancy and the current demographic evolution.

On January 1, 2016, the resolution entitled “Transforming our world: Agenda 2030 for Sustainable Development” came into force, consisting of 17 objectives, broken down into 169 goals, which was approved by world leaders, on September 25, 2015, at a memorable summit at UN headquarters in New

The 17 SDGs reflect the three dimensions of sustainable development (environmental, economic and social), the reduction of inequalities and the promotion of Human Rights. The dimensions of sustainability must therefore be part of all public policies, processes and actions developed at national, regional and local levels, and it is equally important to ensure the participation of public and private sector partners, authorities and civil society 3.

Sustainability implies a new management of means and resources, in order to ensure their continuity. The aim of this approach is to contribute to the preservation and survival of ecological, economic and social ecosystems at a global level. The impact assessment focuses on the three dimensions that constitute its pillars: environmental, economic and social.

In addition to the economic dimension, investment in people is necessary, and governance models impregnated with ethical and legal transparency, as well as accountability, must be adopted. The social dimension implies the defense of human rights and their living conditions, which include education, health, security, social inclusion and the eradication of poverty.

The criteria in the design and construction of health units with energy efficiency certification, in accordance with Directive 2002/91/EC, the implementation of energy efficiency management systems within the scope of the EN 50001:2011 standard and the performance of audits for the evaluation of energy efficiency (energy consumption and associated cost), in health units according to standard EN 216501:2009, aimed at sustainability.


3 Objetivos de Desenvolvimento Sustentável - ONU Portugal (unric.org)
4 Instalações e Equipamentos Categoria - ACSS (min-saude.pt)

Some examples of policy measures for the efficient use of energy and reduction of CO₂ emissions are presented (several included in the Recommendations and Technical Specifications for Hospital Buildings and Technical Recommendations for Inpatient Units published by the ACSS):

a. Definition of energy consumption indicators and monitoring;
b. Control and reduction of residual inhalational anesthetics (greenhouse gases) to reduce the inhalational anesthetic footprint;
c. Increased literacy of users and up-to-date training of health professionals;
d. Placement of low-consumption lamps with targets for reducing energy consumption, replacement of fluorescent lamps with new designs for low-consumption lamps and installation of LED surgical lamps;
e. Reduction of energy consumption in the production of hot water through the use of centralized boilers;
f. Definition of comfort temperature for professionals, whenever possible (reduction of energy expenditure in air conditioning, maintaining the comfort of users and professionals) (ACSS, 2022);
g. Establishment of targets for reducing the energy consumption of computer equipment;
h. Installation of capacitor banks to reduce electrical consumption;
i. Reduction of electricity consumption with the installation of programmers in electrical panels, by automatically deactivating equipment and lighting in unoccupied areas;
j. Criteria for purchasing: equipment to reduce electricity consumption (e.g. low-temperature heating boilers and condensing boilers, devices in boilers (timers and fuel input regulators), substitution of diesel for natural gas to be used in boilers, air conditioning equipment);
k. Definition of areas without lighting and air conditioning beyond working hours;
l. Rules of procedure for energy reduction for security teams;
m. Installation of thermal solar panels and photovoltaic solar panels aimed at increasing the production of renewable energy and reducing CO₂ emissions;

5 Instalações e Equipamentos Categoria - ACSS (min-saude.pt)
n. Increase in the frequency of preventive maintenance of equipment, installations and medical devices in view of the manufacturer's instructions;
o. Use and development of information and communication technologies such as audioconference and videoconference between health professionals and to assess the need to refer users to a health unit;
p. Creation of green spaces with trees next to health units.

The reduction in water availability, which has been aggravated by intense periods of drought, implies that measures must be aimed at the efficient use of water, but also at the exploration of other water sources such as rainwater harvesting to reduce the consumption of drinking water and in the case of water scarcity, the search for alternative solutions.

Examples of policy measures for water quality and availability are presented:
a. The Establishment of water consumption indicators;
b. Sustainability literacy for health professionals and users;
c. Placement of efficient faucets;
d. Installation of flow reducers on taps and showers;
e. Installation of meters for measuring specific consumption;
f. Conditioning of chemical products used in appropriate containers;
g. Installation of dual flush devices in cisterns;
h. Indicators for monitoring the types of wastewater produced;
i. Installation of grids in the drains to prevent entry into the solid waste network and ensure its packaging (avoid contamination and unnecessary clogging), also applying to leftover fats and oils and olive oil used to be packed in appropriate containers.

Below are examples of policy measures in the appropriate use of natural resources and waste management:
a. Use of chlorine-free (TCF) or elemental chlorine (ECF) recycled paper and envelopes for environmental protection;
b. Reduction of copies and incentive to digital documents;
c. Electronic document management measures through internal and external communication;
d. Criteria and storage of materials and medicines for stock control, type of consumption and expiry dates;
e. Implementation of an electronic library (documentation center) with criteria for cataloging procedures, publications, journals, standards, etc.);
f. Unidose in dispensing medications (medicines in individual packaging and individually packaged);
g. Replacement of equipment with battery adapters for medical equipment and devices with electrical current adapters;

h. Introduction of digital signature for internal and external documentation;

i. Dematerialization of electronic prescriptions (Ordinance No. 224/2015 of July 27);

j. Implementation of the electronic clinical process, its use and availability to interested parties;

k. Increase the realization of training programs in digital format;

l. Implementation of ecocenters in all health units, hospitals and other health units (ACSS, 2011), in order to facilitate the sorting and separate packaging of waste and improve storage conditions until collection;

m. Alternative treatment processes to incineration (Group III Hospital Waste) (Direção-Geral da Saúde, 2016);

n. Ecocenters in health units and community pharmacies for the collection and treatment of unused medicines and their packaging, as well as the packaging of all used medicines.

Despite the publication of measures on the website of the Central Administration of the Health System, I.P. (ACSS), however there is no formulation of public health policies for sustainability.

Public health policies for sustainability in the health system aim at the efficient use of energy and reduction of CO$_2$ emissions, efficient use of water and the appropriate use of natural resources and waste management.

Public health policies should include policy measures aimed at sustainability (evolution of health expenditure, costs of increased demand for health care, reduction of waste, monitoring of cost reduction of generic medicines, human resources, costs of health technologies, increased life expectancy and demographic evolution).

5 INTERFACE OF PUBLIC POLICIES

Public health policies for quality and safety in health have been defined in a context that aims to ensure the continuity of increased efficiency and effectiveness of the Health System (WHO, 2018).

Sustainability presents an interface with quality and safety in health, with the guarantee of practices that do not endanger people's health.

One of the purposes of public health policies is sustainability. The objectives of public health policies are, among others, sustainability, considering at least the growing expenditure on health, which ranged from 9.3% in 2015 and 2017, 9.4% in 2016 and 2018 and 9.5% in 2019, in terms of current
expenditure on health care in % of GDP, lower than that of Germany (11.43) and France (11.26), Sweden (10.9), Austria (10.3), Denmark (10.2), Netherlands (10.1) and Belgium (10) in 2017 (OECD, 2019).

The quality health system presents an interface between sustainability in health and quality and safety in health, the guarantee of sustainability and equity (an attribute of quality), equity in the presence of sustainability and quality in health, and sustainability in equity (cf., Vieira da Silva M., 2012).

6 METHODOLOGICAL PROCEDURE

The methodological procedure used for the elaboration of this article was the bibliographical research, based on published articles and legal framework. From the description of the contents obtained, it proceeded to its analysis, which went through an initial reading, the elaboration of the thematic specification, the selection of contents and the evaluation of the information obtained for the selection of subjects to be treated and attribution of meaning, according to professional experience.

The content analysis was carried out based on Bardin L. (1977) focused on articles and other documents on policy measures to be considered in the clusters of use of energy and reduction of CO₂ emissions, for water quality and availability and in the appropriate use of natural resources and waste management.

7 FINAL CONSIDERATIONS

Quality health systems coexist with the guarantee of sustainability and quality and safety.

The objectives of public health policies are, among others, sustainability, results and quality and health safety in the health system.

A formulation of public health policies for sustainability in the portuguese health system, with the definition of competences within the scope of implementation, monitoring and evaluation, including external evaluation, will be decisive for the health system.

Public health policies for the sustainability of the health system must be implemented along with public policies for quality and safety in health, with the involvement and participation of health professionals.

REFERENCES


Busse Reinhard et al. (2019). Improving healthcare quality in Europe Characteristics, effectiveness and implementation of different strategies. World Health Organization (acting as the host organization for, and secretariat of, the European Observatory on Health Systems and Policies) and OECD. ISBN 978 92 890 5175 0.


Central Administration of the IP Health System. Technical Recommendations for Inpatient Units. ACSS. ISSN: 1647-8568.

Central Administration of the Health System, I.P. Technical Specifications for HVAC Installations – ET 06/2008, updated in April 2022. Establishes the interior conditions to be adopted for each type of compartment; heating and cooling water production conditions; the type and methods of installing pipes and conduits to be used in the distribution networks of HVAC installations in hospital buildings. ISSN: 1646-821X.


Ministry of Health (2015). Ordinance No. 224/2015, of July 27. Establishes the legal framework governing the prescription and dispensing of medicines and health products and defines the information obligations to be provided to users. Diário da República n.º 144/2015, Series I of 2015-07-27.


OECD (2019). Health Statistics 2018; Eurostat Database; WHO Global Health Expenditure Database.


