

ADVANCES AND CHALLENGES OF PUBLIC POLICIES FOR THE MANAGEMENT OF HEALTH TECHNOLOGIES IN THE AMERICAS: SCOPING REVIEW

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ABSTRACT

Objective: to outline scientific evidence on the advances and challenges of public policies for the management of health technologies in the Americas. **Method:** this is a scoping review conducted in June 2021, in portals and databases: National Library of Medicine (PubMed), Virtual Health Library (VHL), and Scientific Electronic Library Online (SciELO).**Results:** in the end, 16 studies were selected. The discussion on public policies for the management of health technologies was mostly based on the Health Technology Assessment (HTA). As challenges, the following were highlighted: a shortage of investments and human resources; matching health innovation with public health demands; poor contextualization of the health technologies' roles; methodologies that allow evaluation of light technologies. As for advances, there was an increase in research with an emphasis on technology and the search for innovation, as well as advances related to HTA in the identified countries. **Conclusion:** most of the advances are related to the evaluation process of these health technologies, but there are opportunities for improvement, especially regarding investment, expansion of areas of knowledge, and acknowledgment of light and light-hard technologies.

Keywords: Biomedical technology. Public health policy. Americas.

INTRODUCTION

In the healthfield, technologies are tools that support interventions applied in promotion, prevention, treatment, and care. Currently, they are crucial to the health system, as they may range from medications to procedures and support for patient care⁽¹⁾. In recent decades, in several countries, health systems have been strongly influenced by public policies, with different perspectives, pressured by the incorporation of new technologies, suitable for each phase of care (2). In this sense, the debate about technological improvement in health is extensive and involves multiple issues, which must be continually analyzed and improved, so that its adoption is sustainable and open^(3,4).

In the Americas, health sector reforms in the supported 1990s equity and establishing legal rights to health protection⁽⁵⁾. Meanwhile, in September 2012, Member States of the Pan American Health Organization (PAHO) implemented Resolution CSP28.R9, entitled Health Technology Assessment and Incorporation into Health Systems. resolution encouraged member states to establish decision-making processes to incorporate technologies based on health technology assessment, and actively participate in the Health Technology Assessment Network Americas (RedETSA)^(6,7).

Thus, the increasing incorporation and diffusion of new technologies in the health fieldshows advances, which implies new challenges to the economic and political

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conditions of the countries that implement them⁽⁸⁾. Given this context, this scoping review aimed to outline scientific evidence on the advances and challenges of public policies for the management of health technologies in the Americas.

METHODS

This is a scoping study or scoping review, following the review method proposed by the Joanna Briggs Institute (JBI)⁽⁹⁾, so the PRISMA-ScR (PRISMA extension for Scoping Review) checklist recommendations were respected⁽¹⁰⁾. From this perspective, the study took placeas follow: definition and outlining of objectives and questions; development and outlining of inclusion criteria with objectives and questions; description of the planned approach to the search for evidence, selection, data extraction and presentation of evidence; search for evidence; selection of evidence; extraction of evidence; analysis of evidence; Results presentation; summary of evidence concerning the purpose of the review, conclusions and stating implications of the results^(9,10).

Thus, to have a research question, the Population, Concept and Context (PCC)⁽⁹⁾ strategy was used. With, P- public policies for the management of health technologies; C-advances and challenges, and C- Americas. Therefore, the guiding question was established: What are the advances and challenges of public policies for the management of health technologies in the Americas?

The eligible criteria for inclusion were studies published in English, Spanish or Portuguese, with full text available, and to answer the guiding question, the studies should address, in their outcomes, advances and/or challenges faced by health technology management policies in some country in the region of Americas. Therefore, the evidence did not necessarily need to have its objectives focused on these characteristics, but rather, they should report some situation related to them. There was no time frame. Studies that did not address advances and/or challenges were excluded. Documents related to protocols and manuals were not included in the search. Based on this information, the survey was carried out in June 2021.

The search strategy was done in three stages (Chart 1). The first step was taken in a search of two portals relevant to the topic: National Library of Medicine (PubMed) and Virtual Health Library (VHL). In the second stage, we tried to add other descriptors, used in the first evidence found, and the following database was added: Scientific Electronic Library Online (SciELO). In the third step, the reference list of all included studies was verified, and thus, further studies were searched⁽⁹⁾. The search was carried out through independent reading and by peers, to keep methodological rigor, with discussions for decision-making about the inclusion of some studies.

Chart 1. Portal/Database and search strategies. Fortaleza, Ceará, Brazil, 2021.

PORTAL/DATABASE	SEARCH STRATEGIES
Pubmed–1 st stage and 2 nd stage	("Public Policy" OR "Policies, Public" OR "Policy, Public" OR "Public Policies") AND ("Health" OR "Public Health") AND ("Biomedical Technology" OR "Biomedical Technologies" OR "Technology,
	Biomedical" OR "Technology, Health Care" "Technology, Health" OR "Health Technology" OR "Health
	Care Technology") AND ("Americas") AND ("Challenges") AND ("Advances")
	("Public Policy" OR "Policies, Public" OR "Policy, Public" OR "Public Policies" OR "Health Policies")
	AND ("Health" OR "Public Health") AND ("Biomedical Technology" OR "Biomedical Technologies" OR "Technology, Biomedical" OR "Technology, Health Care" "Technology, Health" OR "Health
	Technology' OR "Health Care Technology') AND ("Americas") AND ("Challenges") AND
	("Advances")
BVS – 1 st stage and 2 nd stage	(Políticas Públicas de Saúde) AND (Tecnologias em saúde) AND (América) AND (Avanços) OR
SciELO –2 nd stage	(Perspectivas)
	(Políticas Públicas de Saúde) OR (Políticas eSaúde) AND (Tecnologia Biomédica) OR (Tecnologias em saúde) AND (América) AND (Avanços) OR (Perspectivas)
	(Políticas Públicas de Saúde) AND (Tecnologias em saúde) AND (América) AND (Desafios)
	(Políticas Públicas de Saúde) OR (Políticas eSaúde) AND (Tecnologia Biomédica) OR (Tecnologias em saúde) AND (América) AND (Desafios)

After using the search strategies of this review, titles, abstracts, and descriptors of the

studies found were analyzed. The selected studies that answered the guiding question went

through full reading. Data were extracted from an instrument developed by the author, using Excel software, version 2016, of the Microsoft Office package.

RESULTS

A total of 457 studies were found in the portals and database, and two were included after reading the reference list. After excluding duplicates and submitting them to the available full-text filter, 106 studies remained. After reading the titles, abstracts, and descriptors, 23 studies were selected for a full reading. Finally, 16 studies were included in this review (Figure 1).

The 16 studies included in this review were

published between 2006 to 2019, being 15 scientific articles and a master's thesis. Fifteen studies with a qualitative approach and one qualitative and quantitative research were identified, based on the concept of Translational Research, evaluating the development of the National Institutes of Science and Technology in Health (INCT-Saúde).

The discussion on public policies for the management of health technologies was mostly based on the Health Technology Assessment (HTA) processes. The publicationswere from Argentina, Brazil, Canada, Chile, Colombia, Costa Rica, United States, Mexico, and Uruguay. Only one study addressed the whole American continent, and most publications were Brazilian (Chart 2).

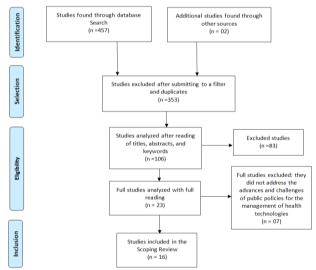


Figure 1 - Diagram of inclusion and exclusion process of studies. Fortaleza, Ceará, Brazil, 2021. **Source:** PRISMA Flow Diagram for the scoping review process⁽⁹⁾.

Chart 2. Studies found according to the year of publication, authorship, title, country of study and results on advances and challenges. Fortaleza, Ceará, Brazil, 2021.

Study	Title	Country of	Results: advances and challenges
(year)		study	
S1 ⁽¹¹⁾ (2018)	Technological development and production of health Supplies: challenges for the Unified Health System (SUS)	Brazil	Advances: - Significant increase in investment in research and development (R&D) in the last decade; Challenges: - Need to increase investments in health with health demands;
			- Need for Latin American countries to intensify their efforts in health research and innovation.
S2 ⁽¹²⁾ (2017)	Evaluación de tecnologias Sanitarias para la toma de decisiones em Latinoamérica: principios de buenas prácticas (Health technology assessment for decision-making in Latin America: good practice principles)	Costa Rica	Advances: - Identification of principles to be applied as priorities in Health Technology Assessment (HTA) in Latin America and the Caribbean; Challenges: - Lack of sufficient resources or technical capacity, as well as the lack of propagation and knowledge of the subject by society in general.
S3 ⁽¹³⁾	Ethical health technology	Argentina	Advances:

(2011)	assessment in Latin America:	Canada	- Health Technology Assessment and Modes of Intervention Agency
	lessons from Canada and Argentina		(AETMIS) in Quebec, Canada, as an example of how HTA agencies can work to more actively integrate ethical reviews into their processes; Challenges:
			- Technical reports generally lack formal recommendations on the inclusion of technology in the health system;
(10)			 Need for an assessment of issues related to fairness and including access to services and the design of fairer social and health policies.
S4 ⁽¹⁴⁾ (2018)	Using Digital Health Technology to Better Generate Evidence and Deliver Evidence-Based Care	United States	Advances: - Public-private partnerships play a significant role in conducting the clinical research needed to demonstrate the effectiveness and safety of new digital bealth technologies.
			health technologies; Challenges: - Lack of integration with patients' needs and values;
			- Low financial barrier to entry into healthcare sector but high- cost burden to demonstrate efficacy, safety, and cost- effectiveness
			- Products developed in standalone mode and not integrated with existing workflow;
			Pressure for fast product manufacturing and turnover with emerging technologies; The current infrastructure does not support the combination of new digital
S5 ⁽¹⁵⁾	A qualitative study of health	Canada	healthtechnologies. Challenges:
(2013)	information technology in the Canadian public health system		- Lack of up to date investments; - Low contextualization of the role of Health Information Technology in
S6 ⁽¹⁶⁾ (2006)	Pesquisa em saúde no Brasil: contexto e desafios (Health	Brazil	public health. Advances: - The relevance of health research within the framework of the general effort
(2000)	research in Brazil: context and challenges)		in science, technology and innovation in the country; Challenges:
			- The sectorial system of innovation in health must work as an economic category (generating employment and income through production), with the
S7 ⁽¹⁷⁾		Chile	health sector as a category of social inclusion (generating employment and income due to increased welfare).
(2014)	Fundamentos para la Institucionalización de la Evaluación de	Cille	Advances: - The institutionalization of an HTA agency or institute, not only to drive the expected increase in spending, but also to control innovation and
	TecnologíasSanitariasen Chile (Foundations for the		technological advances that will keepgrowing; Challenges:
	Institutionalization of Health Technology Assessment in Chile)		- Need for policies to increase the support of insurers and suppliers (public and private);
S8 ⁽¹⁸⁾	Incorporação de tecnologias nos	Canada	- Need to increase public expenditure on health followingpublic policy recommendations. Advances:
(2019)	sistemas de saúde do Canadá e do Brasil: perspectivas para avanços	Brazil	- Canada has several organizations committed to the creation of HTA at the national and provincial levels, and was one of the first countries to formally
	nos processos de avaliação (Incorporation of technologies by		recognize the benefit of HTA in supporting the incorporation of health technologies;
	the Canadian and Brazilian health systems: prospects for		- In Brazil, the National Policy on Science, Technology and Innovation in Health (PNCTIS) and the National Policy on Health Technology Management (PNGTS) stand out; Law no. 12.40; HTA in hospitals grown
	progress in assessment processes)		considerably in Brazil; Challenges:
			-In Canada, the unintelligent prioritization of the technologies to be evaluated stands out; fragmentation and lack of openness in the creation and use of
			HTA for non-drug technologies; involvement and limited participation of physicians and patients in HTA processes; lack of appropriate methods to assess new health technologies; disregard of important dimensions, such as
			the ethical and social implications of technologies; response time that does not meet the needs of decision-makers; the insufficient ability of qualified
			professionals to work with HTA; low use of HTA for decisions on cutting expenses; and absence of HTA impact assessments on health policy; - In Brazil, HTA processes are methodologically incomplete, insufficient in
			terms of scope and do not meet the health system's needs; prioritizing technologies to be evaluated that are not necessarily in line with the relevance
			of the health issues in terms of prevalence, morbidity or mortality; unclear recommendation processes; poor connection with the network of teaching and research institutions to support the assessment; limited user participation
			in HTA processes; limited use of HTA by courts of law; HTA centers in teaching hospitals with operation difficulties; limited recognition of
			CONITEC as a body designed to advise the Ministry of Health on decisions

			to incorporate technologies into the SUS; prioritization, assessment and decision-making actions focused in the same sector; shortage of professionals trained to work with HTA; and the parting of incorporation processes in the public and private health systems.
S9 ⁽¹⁹⁾ (2012)	Avanços e desafios da Política Nacional de Gestão de Tecnologias em Saúde(Advances and challengestotheBrazilianpolicy of healthtechnology management)	Brazil	Advances: - Standardization of methods; prioritization, production, and supporting of studies; institutional development and international cooperation in theHTA field; description of the requirements for proposals; description of deadlines; and expansion of the sectors that make up the collegiate responsible for the analysis and recommendation. Challenges: - The Ministry of Healthis accountable for HTA activities; low sustainability of the activities of creation and dissemination of evaluations; low adherence of HTA in health facilities; evaluation/incorporation activities with low user participation; decision-making processes lacking openness; and low combination of health policy with scientific and technological policy.
S10 ⁽²⁰⁾ (2015)	Inteligência avaliativa em rede: construindo consenso em Avaliação de Tecnologias em Saúde (Assessment intelligencenetwork: consensus building in Health Technology Assessment)	Brazil	Advances: - Development and methodological standardization in HTA; Challenges: Challenges: - HTA needs to consider a broader spectrum of technologies at different stages of development and their implementation in health systems; - Need to develop methodologies that allow the assessment of light technologies.
S11 ⁽²¹⁾ (2019)	Pesquisa Translacional: o desempenho dos Institutos Nacionais de Ciência e Tecnologia na área da saúde (Translational Research: the performance of the National Institutes of Science and Technology in the field of health)	Brazil	Advances: - Development of the National Institutes of Science and Technology Program (PINCT); - Contribution of the INCT-Saúde to the improvement of Brazilian health by providing direct knowledge and for the formulation/implementation of Public Health Policies; Challenges: - Dissemination of the results achieved by the INCT-Saúde, as well as the creation and application of a methodology for monitoring and evaluating Science, Technology and Innovation in Brazil; - Lack of openness regarding the future of the INCT-Saúde; in the reports evaluated, there are not next steps foreseen, nor even how the activities have been completed so far.
S12 ⁽²²⁾ (2010)	As análises econômicas na incorporação de tecnologias em saúde: reflexões sobre a experiência brasileira (Economic analyzes in the incorporation of health technologies: reflections on the Brazilian experience)	Brazil	Advances: - Efforts already made by the Ministry of Health to train managers and technicians, through basic HTA courses, specializations, masters and post-doctoral degrees; Challenges: - Brazil occupies an emergent position in the HTA process, which allows itto learn from successful international experiences and avoid mistakes made by others;
\$13 ⁽²³⁾ (2015)	Institutionalizing health technology assessment for priority setting and health policy in Latin America: from regional endeavors to national experiences	Argentina Brazil Chile Colombia Mexico Uruguay	Advances: - Argentina, Brazil, Chile, Mexico and Uruguay have HTA as a vital tool for strengthening decision-making in health; - Brazil, Costa Rica and Uruguay are good examples of collaboration between HTA and the legal system; Challenges: - Significant challenges in the consolidation between HTA and decision-making are still faced by the studied region.
\$14 ⁽²⁴⁾ (2014)	Incorporação tecnológica no SUS: o problema e seus desafios (Technological incorporation in the Unified Health System (SUS): the problem and ensuing challenges)	Brazil	Challenges: - Political-legal challenge: related to the increase in Ministry of Health spending on lawsuits; - Institutional challenge: CONITEC's acknowledgment is still restricted to the frontiers of the Ministry of Health; - Technical-conceptual challenge: involve the selection of items to be evaluated, with a view to incorporation; the assessment of the technologies itself; the final decision on incorporation.
S15 ⁽²⁵⁾ (2020)	Avaliação de Tecnologias em Saúde na saúde suplementar brasileira: revisão de escopo e análise documental (Health Technology Assessment and private health insurance in Brazil: a scoping review and document analysis)	Brazil	Advances: - Advancement in the implementation of HTA in the Country from the year 2000; - Creation of the Brazilian Health Technology Assessment Network (Rebrats); Challenges: - Greater participation of society, both within the SUS and in supplementary health; - Resource provision based on health needs;

			-Few studies have been dedicated to researching the consequences of the lack of alignment between HTA related policies in the public and private sectors.
S16 ⁽⁵⁾ (2018)	Strengthening and implementing health technology assessment and the decision-making process in the Region of the Americas	Region of theAmericas	Advances: - Approval, by Uruguay, of a cost-effectiveness limit for the monetary evaluation of health technologies; - Creation of an HTA institute in Peru and the establishment of an HTA commission in Bolivia; - Proposal for the creation of an HTA agency was presented to the Argentine
			Senate; Challenges: - Lack of explicit links between HTA activities and the incorporation of health technologies in health systems;

DISCUSSION

The health systems of many countries in the Americas have established welfare and social reforms to reduce poverty and expand access to food, education, and health. Therefore, the health sector in the region has used social health insurance or tax-based financing to expand health services through benefit packages⁽⁵⁾. In the meantime, it is appropriate to discuss the findings in this review, in which Table 2 depicts a range of challenges faced by public management policies in the development of health technologies, as well as points out the advances achieved in each identified country.

At first, it was found that studies conducted in countries such as Brazil. Costa Rica. Argentina, Canada, Chile and the United States pointed to weaknesses in investment, with greater focus on research and development (R&D) processes, in human resources, and the discussion and formulation of policies related to the evaluation and incorporation of new technologies, offering fairer public policies, associating them with the demands of public health. and with the values patients(11,12,13,14,15,17,22,25). It is observed that investment has been an emerging challenge for some years, in which studies carried out since 2011 have already addressed the deficiency in the distribution of resources in the field of technological innovation in health. Among these countries, Brazil stood out due to the increase in investments in R&D in the last decade⁽¹¹⁾.

Therefore, as shown, the discussions of the studies included in this review were focused on HTA processes. This can be supported by the fact that PAHO member states are encouraged to use HTA as an ally of public health policies, including decisions on coverage of the public health system and development of clinical guidelines and protocols for new

technologies^(6,7). Furthermore. there is RedETSA, which has 33 members in 16 countries: Argentina, Bolivia, Brazil, Canada, Chile, Colombia, Costa Rica, Cuba, Ecuador, El Salvador, Honduras, Mexico, Panama, Paraguay, Peru and Uruguay⁽⁷⁾. RedETSA seeks to strengthen, increase, and promote the technology assessment process in the Americas, and allows for the exchange of information. This type of assistance provided by RedETSA can explain the performance of some countries in the region, as they benefit from the exchange and training opportunities available through this regional network(5,7).

In Brazil, a study carried out in 2010 ranked the country in an early stage position in the HTA process, there were few health professionals involved with HTA and there was a greater lack of other professionals, such as economists, librarians and statisticians (16,22). From this perspective, the importance of expansion the planning, development, concerning evaluation, and application of these technologies considered, bringing as an important complement to this debate a greater involvement of other areas of knowledge and health professionals, as well as interprofessional inclusion.

In 2012, several aspects were mentioned as challenges for the implementation of HTA in Brazil⁽¹⁹⁾. In general terms, the literature also asserts that the HTA processes in the country are methodologically incomplete, lacks scope and do not meet the health system's needs⁽¹⁸⁾, thus showing that many of the weaknesses listed above still need to be reviewed. On the counterpart, a recent study that described and analyzed the decision-making process in HTA in the Americas region asserts that Brazil is the only country where the use of HTA in decision-making is mandatory⁽⁵⁾.

Moreover, Brazil has been creating robust

policies in the technological field. The National Policy on Science, Technology, and Innovation in Health (PNCTIS), instituted in 2004, and the Policy Health Technology National on Management (PNGTS), approved in 2009, stand out, which were important milestones in this process, as they contributed to the strengthening of HTA activities to support decision-making within the Unified Health System (SUS). In 2011, Law 12,401 was approved, which establishes, among other things, that the Ministry of Health, in carrying out these attributions, must be advised by the National Commission for the Incorporation Technologies in the SUS (CONITEC)⁽¹⁸⁾.

Another situation observed was the low contextualization of the role of health technologies, not only in the technical and professional field, but also in civil society. Evidence from research carried out in Costa Rica brings a lack of dissemination and knowledge of these issues by society at large⁽¹²⁾. Added to this, a study that evaluated the performance of Brazil and Canada pointed out fragmentation and lack of openness in the procedures performed in the HTA, besides not considering regional differences in demographic and epidemiological terms⁽¹⁸⁾.

A proposal for the creation of an HTA agency in Argentina was evidenced⁽⁵⁾, and HTA in this country, as well as in the rest of Latin America, should engage in a broader or contextualized analysis of new technologies, to include, in addition to the evaluation, checking of socio-ethical aspects(13). In this context, the Agency for the Assessment of Health Intervention **Technologies** and (AETMIS) in Quebec, Canada, stood out as an example of HTA agencies that can work to more actively integrate ethical analysis into their processes⁽¹⁸⁾.

The need to develop methodologies that allow the assessment of light technologies is also highlighted⁽²⁰⁾. It is essential that these types of technologies, as well as light-hard technologies, are acknowledged in the environment of technological incorporation, since, like the others, they are essential tools for an efficient clinical practice, especially in the disease and grievanceprevention context. This is because projects to implement these technologies in health can be used to facilitate communication

with patients⁽²⁶⁾.

Regardingadvances, the detection of principles to be applied as priorities in HTA in Latin America and the Caribbean stands out, so that the main recommendation was to increasingly advance in the improvement of HTA and its association with decision-making. Therefore, developing appropriate processes for each country, without meaning to impose, in the short term, standards taken from examples at the international level, without adequate adjustment to the local context⁽¹²⁾.

Concerning the North American countries, the United States is highlighted, as they are developing new approaches on how researchers and entrepreneurs can optimize the creation of digital health, in which the importance of public-private partnerships and academic research is evidenced, a reality that is differently applied in Mexico, as HTA is basicallylimited to the public sector^(14,23).

In Chile, HTA activities have been carried out since the mid-1990s, however, only in January 2013 the Ministry of Health decided to take a final step in the discussion of establishing an HTA agency or institute (17,23). Uruguay's approval of a cost-effectiveness limit for the economic evaluation of health technologies, the creation of an HTA institute in Peru, and the establishment of an HTA commission in Bolivia were also found. Thus, the implementation of HTA processes is expected to bring in substantial benefits in all countries, especially in Central America and the Caribbean, where most countries are in the early stages of HTA implementation to support decision-making (5).

Concerninglimitations, it is observed that most publications were from Latin America and only one study covered the total American continent. Most of the evidence was focused on the HTA. Regarding the descriptors used, the term "health technology" is not yet a controlled descriptor, but a synonym for the descriptor "biomedical technology", which is rarely used in the scientific literature. Thus, there is a need for future investigations on the expansion of the search strategy, as well as conducting research that addresses the value of all types of technologies for health care, and not just hard technologies.

CONCLUSION

This review offered an opportunity to outline the advances and challenges faced by public policies for the management of health technologies in the Americas. Most of the advances found in the research are related to the evaluation process of these health technologies, so that the theme is discussed by the authors as necessary for effective technological inclusion. Opportunities for improvements in the

technological sphere of health were also identified, mostlyabout investment, expansion of areas of knowledge and acknowledgment of light and light-hard technologies.

The findings of this research are crucial for public health, once it allowedclarifying existing strengths and weaknesses in the development of health technologies, to strengthen this field in constant growth in the healthfield.

AVANÇOS E DESAFIOS DAS POLÍTICAS PÚBLICAS DE GESTÃO DAS TECNOLOGIAS EM SAÚDE NAS AMÉRICAS: SCOPING REVIEW

RESUMO

Objetivo: mapear evidências científicas sobre os avanços e desafios das políticas públicas de gestão das tecnologias em saúde nas Américas. **Método**: trata-se de uma *scoping review*realizada em junho de 2021, nos portais e base de dados: *National Library of Medicine* (PubMed), Biblioteca Virtual da Saúde (BVS) e *ScientificElectronic Library Online* (SciELO). **Resultados:** ao final, 16 estudos foram selecionados. A discussão sobre as políticas públicas de gestão das tecnologias em saúde estava pautada principalmente na Avaliação de Tecnologias em Saúde (ATS). Como desafios apresentados destacaram-se: falta de investimentos e de recursos humanos; alinhamento da inovação em saúde com demandas de saúde pública; baixa contextualização do papel das tecnologias em saúde; metodologias que permitem avaliação de tecnologias leves. Em relação aos avanços, ressalta-se aumento de pesquisas com ênfase no componente tecnológico e busca de inovação, bem como avanços relacionados à ATS nos países identificados. **Conclusão:** a maioria dos avanços revelados são referentes ao processo de avaliação dessas tecnologias em saúde, mas existem oportunidades de melhorias, principalmente no investimento, expansão das áreas de conhecimento e no reconhecimento das tecnologias leves e leve-duras.

Palavras-chave: Tecnologias biomédica. Políticas públicas de saúde. América.

AVANCES Y DESAFÍOS DE LAS POLÍTICAS PÚBLICAS DE GESTIÓN DE LAS TECNOLOGÍAS EN SALUD EN LAS AMÉRICAS: SCOPING REVIEW RESUMEN

Objetivo: mapear evidencias científicas sobre los avances y desafíos de las políticas públicas de gestión de las tecnologías en saluden las Américas. **Método**: se trata de una *scopingreview* realizada en junio de 2021, en los enlaces y base de datos: *National Library of Medicine* (PubMed), *Biblioteca Virtual da Saúde* (BVS) y *Scientific Electronic Library Online* (SciELO). **Resultados:** al final, 16 estudios fueron seleccionados. La discusión sobre las políticas públicas de gestión de las tecnologías en salud estaba basada principalmente en la Evaluación de Tecnologías en Salud (ATS). Como desafíos presentados se destacaron: falta de inversiones y de recursos humanos; organización de la innovación en salud con demandas de salud pública; baja contextualización delrol de las tecnologías en salud; metodologías que permiten evaluación de tecnologías blandas. Respecto a los avances, se destaca el aumento de investigaciones con énfasis en el componente tecnológico y búsqueda de innovación, así como avances relacionados a la ATS en los países identificados. **Conclusión:** la mayoría de los avances revelados son referentes al proceso de evaluación de estas tecnologías en salud, pero existen oportunidades de mejorías, principalmente en la inversión, expansión de las áreas de conocimiento yen el reconocimiento de las tecnologías blandas y blandas-duras.

Palabras clave: Tecnología biomédica. Políticas públicas de salud. Américas.

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Submitted: 12/04/2021 **Accepted:** 29/07/2021

FINANCIAL SUPPORT

Doctoral Scholarship - National Council for Scientific and Technological Development - CNPq - 140470/2020-4