Fostering Health Systems' Monitoring to Better Serve Older Populations







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Contents

Acknowledgments	iv
Introduction	1
Why should we monitor the performance of the health system in an aging world	d?3
Efforts on health systems monitoring in the context of the aging population	6
Longevity and the health systems	6
The Sustainable Development Goals	7
World Health Organization data portal	8
Framework for universal health	10
Toward an age-friendly (anti-ageist) framework for health systems monitoring	j: the 360
tool	10
The 360 tool and health systems monitoring	10
Integrated Care for Older People and 360: a synergy for healthy longevity	11
The development of the 360 tool so far	11
The 360° perspective	11
Phase 1: Experts' meetings and feasibility testing in selected countries	11
Phase 2: Delphi study to reach consensus on a shortlist of indicators	13
How will the results of the 360-aging tool be beneficial?	14
Moving forward with the integration of care	15
What is the health system doing to improve intrinsic capacity and functional ak	oility? 15
What is the added value of the 360-aging tool?	15
Conclusion and perspectives	16
References	17

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The purpose of the series is to provide continuous updates on the different areas of action of the Decade of Healthy Aging (2021–2030) in the Americas, as well as on other related aspects.

The collaboration of the experts from PAHO, the United Nations and the Inter-American System, and the academic world who participated in the initiative and formulated essential feedback and recommendations for the project to see the light is appreciated.

Introduction

Due to the transformations in the demographic characteristics of countries, the profile of the typical user of health systems is changing in several countries around the globe—from women and children to older persons. From a demographic perspective, in nine out of the 49 states and centers of the Pan American Health Organization (PAHO). There are higher chances that the health system will meet a person older than 60 years than a child or adolescent younger than 15 years (1). This change requires adjustments to overcome the predicted shortage of resources for health and pension systems with the decreasing working-age population and the increased demand for these services (2). Additionally, the health system must adapt to address the needs of an aging society. In 2017, PAHO stated that aging was one of the main drivers of challenges and action in public health due to the implications for social security systems and the structure of the workforce related to the emergent health issues, such as multimorbidity, frailty, and dementia, that need to be addressed (3)

Current health systems were designed within an episodic model of health service. Such a model was reasonable when infectious diseases were the most common reasons for consultation, but they are not anymore. To be sustainable, the episodic and fragmented manner of providing health services should evolve into person-centered integrated care. This will favor greater efficiency in health systems as well as adequate care for the complex and diverse needs of the older population. For instance, approximately two-thirds of older persons will exhibit multimorbidity, defined as having two or more chronic conditions. Along with multimorbidity and changes in the biological aspects of health (intrinsic capacity), the environment, both physical and social, plays an important role in the configuration of the healthy (or non-healthy) aging of a population (4). A recent investigation aimed at identifying universal health coverage using data from the Global Burden of Disease Study showed performance lagging on effective coverage indicators in many countries for noncommunicable diseases in comparison with those for communicable diseases and maternal and child health, despite noncommunicable diseases accounting for a greater proportion of potential health gains in 2019. This suggests that many health systems are not keeping pace with the rising noncommunicable disease burden and associated population health needs (5).

Concerning the need to better adapt societies and health systems to an aging population, the period 2021-2030 has been declared the "Decade

of Healthy Aging" by the United Nations. The Decade of Healthy Aging is a concerted movement to bring stakeholders together with the main objective of improving the life of older persons. Considering the relevance of health systems' performance to serving older people's needs, two main areas of action are directly related to health services and systems: (1) deliver person-centered integrated care and primary health services which are responsive to older people; and (2) provide access to long-term care for older people who need it. It is important to point out that the other areas of action (change how we think, feel, and act toward age and aging; ensure that communities foster the abilities of older people) are strongly associated with health care delivery and healthy aging (6).

The Decade of Healthy Aging has been launched during the "information era." Information has gained a central place in many societal dimensions. Along with the areas of action, the plan of action for the Decade of Healthy Aging emphasizes the importance of data gathering, knowledge sharing, evidence favoring informed decisions, and monitoring results.

Older people's specific health needs are at risk of being overlooked along the way to universal health: sharing information about older adults will make them more visible. In the health systems arena, monitoring the health system represents an unmet need. For example, one of the strongest systematic observatories of health systems, the European Observatory on Health Systems and Policies (https://eurohealthobservatory.who.int/), does not provide information in this regard. The Observatory's portal includes recent documents and tools linked with aging, but mainly with the financial repercussions of aging on health systems (7). A review of the health system reforms and the needs of the aging population was published by Tynkkynen et al. (8). They highlighted the importance of monitoring primary care and the level of integration of care in the context of population aging. These represent a few results retrieved from a quick Internet search to exemplify the lack of ongoing monitoring of health systems for aging.

To the best of our knowledge, there is no systematic observatory of a national or international health system that monitors key indicators currently in place. Civil society and health systems managers need to know how close—or far—the system is from meeting the needs of older adults. Monitoring can inform the stakeholders whether the health system is on track to reach its goals.

Why should we monitor the performance of the health system in an aging world?

People involved in the health system (health care workers who collect routine data, informatics personnel and epidemiologists who manage data, health managers, policymakers, civil society) are engaged in the transformation of raw data into information and knowledge. The monitoring process allows this transformation to happen. Furthermore, monitoring the health system with a lens on aging can support countries in establishing priorities and monitoring advances and any bottlenecks that need to be addressed—with the aging of populations it is crucial to specifically monitor the older age group so as to have effective public policies in place. As previously stated, the evolution of the health systems should follow demographic and epidemiological transitions. Under an optimistic scenario, health systems are already evolving and will continue to do so. However, there are important information gaps that currently impede us in identifying how close this scenario is to the truth, especially concerning older people's care.

Assessing the capacity and readiness of the health system to implement integrated care for older people, including in humanitarian emergencies, is also part of the plan of action for the Decade of Healthy Aging (6). Specifically in relation to the health systems, we can distinguish at least two levels of information: (1) the aggregate information about the health system, which tells the story of how the health system is moving its assets from the inputs to the outputs, and eventually to impact health, financial protection, and user satisfaction; and (2) the information from the users of the health system at the individual level.

These levels of information are linked to health system monitoring. One way of defining health system monitoring is to use the information to "take the pulse" of the system; for example, using pieces of data as indicators of how well the health system is using its resources to achieve its goals. Broadly speaking, this is what indicator-based monitoring is about. As discussed by Smith et al. (9), performance monitoring facilitates making sense of the information output from the health system such that patients, clinicians, managers, governments, and the public actively steer the system toward better outcomes.

The monitoring practice is considered to be complete when at least some action has been taken derived from the indicator measurement. Monitoring health system performance is crucial to establishing public health policies and practices that are effective in addressing the needs of the older population as well as in prioritizing actions at the system level.

Nevertheless, in some parts of the Americas, the priority in regard to health system data and information is to strengthen the collection capabilities. In other cases, the focus is on informing public policy and implementing changes. The PAHO Healthy Aging team has coordinated a project to promote health system monitoring. This project is explained in detail below (See Box 1 and the section "Toward an age-friendly (antiageist) framework for health systems monitoring: the 360 tool"). Results from three selected countries are available (Brazil, Chile, and Mexico), developed through a shortlist of indicators to determine how well the health system is responding to the needs of older people. The vision is that this cluster of indicators will develop into a monitoring tool.

Box 1. The 360-aging tool in brief

Context: The PAHO Healthy Aging team is conducting the 360-aging project to "mind the gap" vis-àvis health system performance monitoring in reference to the needs of older people.

Aim: To develop a cluster of health system indicators selected by a consensus among stakeholders. In a second phase, the idea is to develop a community of practice that can advocate for the collection, exploitation, and valorization of the indicators and the information they provide about the health system. The goal is to improve the health system's ability to serve older populations.

Methodology: So far, a Delphi study has been carried out and a group of stakeholders who work daily on the health of older populations has reached consensus on seven tracer indicators relevant to informing policy. Case studies in selected countries have provided evidence on the feasibility of the 360-aging tool in different parts of the Region.

Implications: Monitoring the performance of health systems using tracer indicators like in the 360-aging tool might relieve the tension between the programmatic and the systemic approaches to population aging.

The first steps on the 360-aging tool have been published in the Pan American Journal of Public Health (10). The details on the Delphi process are forthcoming.

A tool to assess and monitor health system performance is needed because the older adult population has particular access, use, and expenditure characteristics (11). The outputs from the current monitoring of health frameworks are not specific enough to focus on the unmet needs of older people, nor to discern what works and what needs to be adjusted. The goal of having an aging-focused monitoring tool is to improve the effectiveness of care delivery rather than to overburden the processing of local health data.

There are already efforts in progress to implement an age-friendly monitoring framework; for instance, reporting and analyzing data disaggregated by age group, including institutionalized populations

5

(i.e., in nursing homes), and reaching out in the community for socially isolated, physically frail, and financially deprived older people. Getting to know this population group better (where do they live?; what are their priority needs?) is crucial to increasing the resilience of the health systems during epidemics or natural disasters, as well as being more effective in caring for an aging society (12).

Efforts on health systems monitoring in the context of the aging population

Longevity and the health systems

Generational longevity gains have been increasingly recognized as a driver of socioeconomic and epidemiological changes (17). In the middle of the "longevity revolution" and the COVID-19 pandemic, are the health sector and the health systems in the Region of the Americas starting to be proactive toward the health needs of older people? There is an information gap in this regard. The aim of this section is to present relevant health monitoring strategies with different scopes. It will present a focus on their strengths and limitations from the perspective of healthy aging and the health needs of older people. Additionally, Box 2 illustrates how the COVID-19 crisis revealed weaknesses in the current health systems in meeting the needs of older people.

Box 2. How the COVID-19 crisis revealed weaknesses in the health systems to meet the needs of older people

The impact of COVID-19 on older people in the Americas has been described elsewhere (13, 14). It would be ageist to assume that the disproportionate mortality of COVID-19 in older people is due only to physical frailty and age-related vulnerability. Research has suggested that health care professionals were significantly more likely to use life-sustaining measures in younger than older individuals, even after controlling for prognosis and patient preferences. Additionally, ageism increased the risk of inadequate or inappropriate care and decreased or delayed access to health care services. There are also significant misconceptions associated with aging and care of older people, along with a lack of awareness of the unique aspects of disease presentation in older people (15).

One of the clues to understanding the disproportionate COVID-19-related mortality levels in older people is that the health systems' response to older people was centered on the pharmacological treatment of noncommunicable diseases. Older people are among the most frequent users of health care facilities (16), but it is not clear that the health system is sufficiently knowledgeable about this sector of the population. Pharmacologic control of diabetes and hypertension is beneficial in slowing functional decline, but it is not enough. The idea is to transit from a disease-based approach to a function-centered approach. Implementing periodic functional assessments (for example, by monitoring the intrinsic capacity of older people at home or at hospital discharge) is a concrete step toward a function-centered approach. Improving care for older people and building an optimal age-friendly health care system will help everyone—including our current and future selves.

The Sustainable Development Goals

The Sustainable Development Goals (SDGs) are centered in the concept of leaving no one behind, ensuring that people of all ages in all segments of society can reach their potential and lead a life of dignity in fulfillment of their human rights (18). They represent a general framework of the global priorities from the perspective of the United Nations. Despite the strong interaction of population aging and the various development sectors and the incentive to present indicators disaggregated by age groups, older people are nearly invisible to the SDGs monitoring system. Table 1 shows that only three SDG targets (out of 17) mention older persons, and there is only one indicator that explicitly includes older persons.

Table 1. Targets and indicators of the Sustainable Development Goals referring to older persons

TARGET	INDICATOR
1.3 Implement nationally appropriate social protection systems and measures for all, including floors, and by 2030 achieve substantial coverage of the poor and the vulnerable	1.3.1 Proportion of population covered by social protection floors/systems, by sex, distinguishing children, unemployed persons, older persons, persons with disabilities, pregnant women, newborns, work-injury victims, and the poor and the vulnerable
2.2 By 2030, end all forms of malnutrition, including achieving, by 2025, the internationally agreed targets on stunting and wasting in children under 5 years of age, and address the nutritional needs of adolescent girls, pregnant and lactating women, and older persons	
11.2 By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons	
11.7 By 2030, provide universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities	

To address this information gap, the Decade of Healthy Aging action plan presented a list of the relevant Sustainable Development Goals, indicators, and data disaggregation required for healthy aging (6).

World Health Organization data portal

The World Health Organization (WHO) has published health system monitoring frameworks globally (19). The generic model of the health system building blocks has been adapted to local contexts to monitor the health sector. WHO has compiled a series of aging-relevant indicators from different sources, currently available as dashboards and interactive maps (Table 2) (20). However, these indicators are not comprehensive enough to monitor health systems, and for some indicators the last update was in 2016. This is mostly related to the lack of data available on healthy aging in general. Three-quarters of the countries of the world have limited or no comparable data on healthy aging or on older age groups, and this situation contributes to the invisibility and exclusion of older people. Governments and other stakeholders need to invest in data to monitor healthy aging across the life course; strengthening of data, research, and innovation is one of the main enablers of the Decade of Healthy Aging (21).

Table 2. Indicators included in Integrated Care for Older Person in the aging section of the World Health Organization data portal

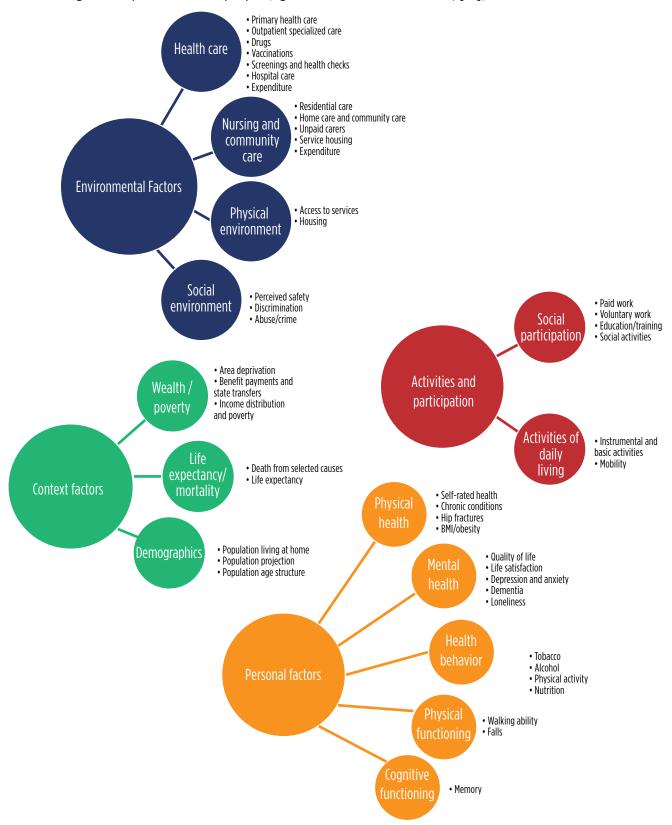
INDICATOR
Mean body mass index
Number of countries with national policies in place to support comprehensive assessments of the health and social care needs of older people
Prevalence of hearing impairments in older people
Prevalence of vision impairments in older people
Proportion of older people who experienced any type of abuse (SDG 16.1.3)
Prevalence of anemia in older people (SDG 2.2.3)
Incidence rate of falls in older people (per 100 000 population)
Suicide mortality rate (per 100 000 population) among older people (SDG 3.4.2)
Prevalence of lower back pain in older people
Prevalence of insufficient physical activity in older people aged 70 or over

Health monitoring in the Organization for Economic Co-operation and Development

Grube et al. (22) described 10 monitoring frameworks containing 293 indicators related to the health system's indicators regarding older people in the Organization for Economic Co-operation and Development countries. The distribution of the indicators is displayed in Figure 1. Most of the indicators were classified under the domains of "health care" (43 indicators) and "nursing and community care" (41 indicators). The Irish

Healthy and Positive Ageing Initiative indicators and the key indicators of the Finnish National Institute for Health and Welfare were developed following literature review, consultations with experts, and reaching consensus using adapted Delphi techniques.

Figure 1. Health areas, domains, and concepts included by the indicators in a recent review of monitoring health systems for older people (figure modified from Grube et al, [22])



Framework for universal health

PAHO has developed a universal health framework (23, 24). The framework includes elements crucial to the transformation of health systems such as human resources (i.e., health professionals) and efforts to (a) ensure full coverage and maximum utilization; (b) improve financing, taking into account equity and efficiency (i.e., financing for the system and financial protection for the users); and (c) strengthen multisectoral coordination (e.g., for long-term care). The universal health framework does not include indicators exclusively related to population aging or older people, but has served the PAHO Healthy Aging team as a framework for creating the 360 tool.

Toward an age-friendly (anti-ageist) framework for health systems monitoring: the 360 tool

The 360 tool and health systems monitoring

The 360 tool is a group of indicators aligned with PAHO's universal health framework aimed at fostering health system monitoring to better serve older people. Innovations in monitoring health systems respond to the call to action of the World Report on Aging and Health (4). This report suggested that the adaptations of the health systems should organize health care around the needs and preferences of older people. Conceptually, integrating the health system implies overcoming disjointedness and inefficiencies and sharing resources (human capital, budget, data). On the other hand, integration can be very challenging in practice because it implies modifying the status quo, adjusting processes, and changing physical and mental structures. The PAHO Healthy Aging program envisions that data-driven rather than discretionally driven decisions can foster the adaptation process for health systems in the Region.

WHO has provided overall guidance for adapting health systems to population aging through the Integrated Care for Older People (ICOPE) strategy (25). The ICOPE handbook presents care pathways for personcentered service in primary care (26). It was designed for professionals working with older people to provide clinical pathways from the intrinsic capacity assessment to the personalized care plan formulation. The handbook is also available through the mobile app, which is freely available in English, Spanish, Portuguese and other languages. The ICOPE toolkit includes guidelines for managing declines in intrinsic capacity in a community-based setting.

In parallel, the ICOPE framework, aimed at health services and systems, includes a series of scorecards to assess the level of readiness of the health system to implement ICOPE. The material resulting from the scorecards is informative of very basic elements of the health systems and services. The PAHO Healthy Aging team envisions the 360-aging tool synergizing with the ICOPE strategy to guide countries that have already covered the essential features of the health system's response. Given that ICOPE was conceived as overall guidance for the whole world, further efforts are needed to adapt it to regional contexts and the particular needs of older people in PAHO Member States.

Integrated Care for Older People and 360: a synergy for healthy longevity

As an example, ICOPE and the 360-aging tool can synergize as follows: the ICOPE strategy is adaptable to different levels of a health system's performance. Hence, the result from the health system's performance evaluation is helpful to guide the implementation of ICOPE—and vice versa: as ICOPE is implemented, its impact on the health system's performance can be potentially evaluated by the performance assessment.

The development of the 360 tool so far The 360° perspective

The PAHO Healthy Aging team has carried out a consultation and consensus process on indicators to monitor a 360° perspective of the health system's performance in regard to older people's needs. A 360° perspective means monitoring the "intrinsic" abilities of the health system, but also connecting with sociodemographic variables such as education level and poverty among older people. The PAHO 360-aging project has accomplished two phases: (1) a series of consultations with experts in health systems with application to case studies; and (2) a Delphi study to reach a consensus on a shortlist of core tracer indicators with high relevance to informing public policy.

Phase 1: Experts' meetings and feasibility testing in selected countries

A detailed description of Phase 1 has been published in a recent report (10). Briefly, the PAHO Healthy Aging team conducted a series of consultations with experts in health systems and older people's care to develop a list of indicators necessary to measure a health system's performance regarding older people. The synthesized result of the

meetings is a list of 25 indicators labeled as having high usefulness to inform policy. The experts also cataloged these 25 indicators vis-à-vis their data availability (Table 3).

Table 3. Indicators identified by experts as high priority because of their usefulness to inform public policy and their availability in the national information systems

		AVAILABILITY		
	INDICATORS	HIGH	VARIABLE	LOW
1.	Premature mortality from noncommunicable diseases (Mortality occurring at an age less than life expectancy)	✓		
2.	Disability-free life expectancy at age 60 (Healthy life expectancy)	✓		
3.	Prevalence of disability in people 60+	✓		
4.	Prevalence of obesity of people 60+	✓		
5.	Influenza vaccine coverage	✓		
6.	Proportion of out-of-pocket spending on health for people over 60 years of age with respect to total spending on health (Rate of out-of-pocket health spending to total health spending, ratio 60+: 59 and younger)	✓		
7.	Population coverage by health financing schemes in people 60+	√		
8.	Percentage of older adults receiving a non-contributory pension	√		
9.	Percentage of older adults living in poverty	✓		
10.	Average years of schooling in older adults	✓		
11.	Proportion of older people who have had a functional evaluation in the last year			✓
12.	Mortality rate attributable to low quality health care (total and people aged 60 and over)		√	
13.	Mortality rate due to falls		✓	
14.	Disability prevalence (Rate and prevalence of disability/dependency)		✓	
15.	Insufficient physical activity in adults over 60 years of age			✓
16.	Proportion of older people who have had a periodic health assessment		✓	
17.	Polypharmacy and multimorbidity index (Percentage of health care units with implemented tools to reduce inappropriate polypharmacy)		~	

18.	Percentage of the population over 60 years of age experiencing catastrophic out-of-pocket health expenses	✓	
19.	Percentage/number of undergraduate medical and nursing programs including geriatrics	√	
20.	Suicide rate in people 60+	✓	
21.	Effective cataract surgery coverage for adults 50 years and older	✓	
22.	Number of geriatricians per older adult and other health/social professional with training in aging/ gerontology	✓	
23.	Self-reported level of satisfaction with the health services	✓	
24.	Percentage of older adults living alone	√	
25.	Cost associated with long-term care	√	

Source: Table prepared by authors based on the findings of expert meetings. Technical data sheets for these indicators are available in Spanish from the authors upon request.

Phase 2: Delphi study to reach consensus on a shortlist of indicators

Following the in-person consultation with experts, the PAHO Healthy Aging team aimed at reaching an agreement on a core shortlist of indicators. The team gathered a pool of stakeholders from directories of previous participants in PAHO's Healthy Aging activities. The invitation and the online survey were sent to 90 people, of whom 36 responded. The profile of the participants included:

- technical officers who work with indicators on aging and health using quantitative and qualitative approaches;
- health system managers;
- geriatricians;
- gerontologists;
- primary health professionals working with older people;
- researchers working on healthy aging;
- officers from international organizations.

A Delphi methodology was applied using online questionnaires to achieve consensus for at least seven indicators regarding the following three criteria:

- high priority: consensus reached by 70% or higher;
- higher relative importance than the other indicators: selected by at least 50% as having a higher "relative weight";
- high ranking: positioned among the first 10 places of the overall ranking.

The indicators that reached consensus were:

- disability-free life expectancy at age 60;
- prevalence of disability in people 60 years and older;
- potentially avoidable premature mortality rate in people
 60 years and older;
- percentage of older people who have had a functional evaluation in the past year;
- percentage of older people living in poverty;
- premature death from noncommunicable diseases;
- mortality rate due to falls in people 60 years and older.

One indicator, out-of-pocket spending as a proportion of total health spending, did not reach consensus in accordance with the three criteria but was consistently graded as having high importance.

How will the results of the 360-aging tool be beneficial?

 To guide the adaptation of the health systems to the demographic transition monitoring indicators is a step in the health system's improvement cycle. The interpretation of the indicators serves as guidance for the critical systemic elements that need attention. To relieve the tension between the programmatic and systemic approaches, the global health system's assessments may not identify specific needs and realities of population groups like older people. Health programs have approached these needs in the past, but programmatic silos have been ineffective. In some cases, the older people's program has been overtaken by dancing clubs and daytime care. Older people do need social participation and daytime care, but primarily they are dependent on health outcomes: health status, financial protection, and user satisfaction. Thus, an intermediate approach is needed with a broader scope than programmatic assessments yet sensitive enough to the needs of older people as a population group. A tool like 360-aging can help stakeholders ensure that the aging population is not left behind as the sector moves toward universal health.

Moving forward with the integration of care

What is the health system doing to improve intrinsic capacity and functional ability?

The health sector plays a role as an environmental factor of healthy aging. But its role is a primary and not a secondary one. The world is moving toward integrating the health and social sectors, but our the Region of the Americas is only in the initial stages. If the current state of the health system is unknown, how can the Region move forward with sociomedical integration?

What is the added value of the 360-aging tool?

The 360-aging tool is used in standardizing a small number of tracer indicators. The tool results from a consensus reached on a few tracer indicators of health system performance. After several meetings with stakeholders and a Delphi consensus study, a core set of seven indicators with high relevance for informing policy was identified. This compact set of tracer indicators avoids putting extra pressure on the health information systems. In addition, standardizing a core set of seven tracers allows for comparisons within a population (i.e., country comparisons vis-à-vis previous years) and between people (i.e., between countries).

Conclusion and perspectives

In the era of the longevity revolution, the health sector can contribute to adding life to years in older age and not just add years to the lifespan. The health systems need to adapt their management and operational procedures to improve their performance in regard to older people.

Theoretically, the process of health systems improvement involves monitoring indicators and making them useful for decision-making and resource allocation, implementing changes, and evaluating whether changes caused modifications in the functioning of the health system (19). However, in actuality, even the best monitoring system will be ineffective if it is not connected to the financing, governance arrangements, regulations, and political context in which the health system functions and develops (27).

Currently available tools to adapt the health systems to aging include the ICOPE toolkit from WHO. However, there is a lack of an indicator-based monitoring practice that explicitly targets the health system's performance vis-à-vis older people. The PAHO Healthy Aging team is conducting the 360-aging project to fill that gap. So far, a consensus has been reached on seven tracer indicators with high relevance to informing policy, and case studies in selected countries have assessed the feasibility of this approach.

The PAHO Healthy Aging team considers it helpful to have tools like a list of indicators or an online dashboard, but it is preferable to integrate a network of people who can maximize the use of the data. The vision of the Healthy Aging team is that by the end of the Decade of Healthy Aging, the Region of the Americas will be in a situation where it is able to rely on a standardized monitoring practice for health systems' performance toward older people. The idea is to build the 360° community of practice with members involved in monitoring indicators, communicating findings to the public and the decisionmakers, and implementing improvements in the health system, both locally and nationally.

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Fostering Health Systems' Monitoring to Better Serve Older Populations is part of the publication series titled "The Decade of Healthy Aging in the Americas: Situation and Challenges." The publications are designed to favor the prioritization of effective actions at the local level as well as the monitoring of data and public health policies, and provide evidence-based information. Along with the objective of presenting the available updated knowledge about the situation of health and aging at the beginning of the Decade of Healthy Aging in the Americas, this publication gives information about health systems' monitoring to better serve the needs of older adults and emphasizes the need for societies and health systems to better adapt to an aging population. It introduces the 360-tool as a guide to adapt health systems through monitoring tracers/indicators and highlighting the data and information that are readily available, disaggregated by age. This information can aid in decision-making and resource allocation to support older adults' needs. Concerning the 360-tool development, a consensus has been reached on seven tracer indicators with high relevance to informing policy, and case studies in selected countries have assessed the feasibility of this approach. The list of indicators and the process related to the development of the tool are presented in this publication. The Decade of Healthy Aging 2021-2030 is a period to guide action toward the transformation of societies by fostering the inclusion of older people in every decision. This publication intends to contribute to this strategy and highlight the upcoming challenges and opportunities on healthy aging.







