Measuring the Progress and Success of Regional Health Policies: PRARI Toolkit of Indicators for the Union of South American Nations (UNASUR)

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MEASURING THE PROGRESS AND SUCCESS OF REGIONAL HEALTH POLICIES

PRARI Toolkit of Indicators for the Union of South American Nations (UNASUR)

Ana B. Amaya, Cesar R. Cabral, Elena Clavell, Andrés Coitiño, Philippe De Lombaerde, Gustavo Giler, Mariana Faria, M. Belén Herrero, Stephen Kingah, Santiago López Ramos, Cristina Luna, Pía Riggiorozi, Marcelo Rojas Mattos, Tomás Pippo, Katherine Tobar and José Ueleres

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Key definitions

a) **Coordination**: processes which are often led by the Secretariat of UNASUR to ensure that the specific collective objectives are carried out.

b) **Disparities**: Contextual differences between the Member Countries of UNASUR which may affect the adopting/implementation of regional policies and regulations nationally.

c) **Governance**: The functions related to the management, coordination and development of regulations implemented by governments and by decision makers in their attempt to attain health objectives.

d) **Harmonisation**: Process of facilitating the alignment and achievement of UNASUR goals which are included in the governing documents of UNASUR.

e) **Health**: “a state of complete physical, mental and social wellbeing and not merely the absence of disease or illness (WHO).”

f) **Input indicators**: Indicators that measure human resources, financial resources, physical infrastructure, equipment and any other resources related to the application of a policy and programme.

g) **Process indicators**: They evaluate whether the policy or programme is being applied as planned and how well the policy or programme activities are being carried out.

h) **Output indicators**: They relate to the results of the efforts (inputs and processes/activities) in terms of the programme or the policy. They show the direct results of the policy or programme activities.

i) **Outcome indicators**: They measure the level of success of the programme in terms of improving the accessibility of services, the use or quality of the policy.

j) **Impact indicators**: They measure in the long term, the cumulative effects over time of the policies or programmes concerning public health and wellbeing or the broader social system.

k) **Indicator levels**: They refer either to the levels of measuring indicators (e.g. worldwide, regional, national, subnational) or to the level of production and reporting of indicators (e.g. worldwide (UN), regional (UNASUR, MERCOSUR, CAN, among others), (national member countries).

l) **Monitoring**: Follow-up and evaluation process of the application and impact of the policies.

m) **Policy priorities**: Key goals in the field of health.

n) **Regional health policy**: Policies developed in the context of a regional organisation to respond to the health challenges of its Member States.

o) **Regional Integration**: The process by which two or more nation-states agree to cooperate, harmonise policies and/or design common policies and institutions to achieve common objectives.
p) Access to primary health care: “essential healthcare which is accessible to all individuals and families in the community through means acceptable to them, with their full participation and at an affordable cost for the community and the country (WHO)”.

q) Access to medicines: the availability, opportunity and the right to receive medication which is affordable and available to everyone.
Preface

This PRARI Toolkit is the culmination of the work carried out in the area of regional indicators development of the project on Poverty Reduction and Regional Integration (PRARI), coordinated by Professor Nicola Yeates at the Open University (UK). The two-year project, carried out during 2014-2015, examines what regional institutional practices and methods of regional policy formation are conducive to the emergence of embedded pro-poor health strategies, and what national, regional and international actors can do to promote these policies. The work was carried out with support from the Economic and Social Research Council (ESRC)/Department for International Development (DFID) United Kingdom, Grant Reference ES/L005336/1. It does not necessarily reflect the opinions of the ESRC/DFID, The Open University, or the United Nations University.

The PRARI Toolkit is one of the most important results of PRARI. We hope that it will be used by different South American stakeholders - officials of the Union of South American Nations (UNASUR) (including the Institute of South American Governance (ISAGS), which contributed to its development) and national officials to monitor the regional health policies in UNASUR. This Toolkit is focused on access to primary healthcare and access to medicines. The indicator system has not been designed as a static system or as a final proposal. Its innovation consists of the participatory approach used to develop it in collaboration with potential users of the system.

The PRARI Toolkit has been a collective effort and has benefitted from the contributions of many partners and participants. We would like to thank in particular the co-authors of this report for their participation, comments and support; Mariana Faria, Henri Jouval and the ISAGS/UNASUR team for welcoming us in Rio de Janeiro. We would also like to thank the UNASUR team that helped with the logistics of our travel.

2 Further information about PRARI is available from The Open University project website: http://www.open.ac.uk/socialsciences/prari/index.php. Other institutional partners are the South African Institute for International Affairs (SAIIA), FLACSO (Argentina), Southampton University (UK), and the United Nations University Institute on Comparative Regional Integration Studies (UNU-CRIS).
Ciudad Mitad del Mundo workshop; Belén Herrero, Melisa Deciancio, Diana Tussie and FLACSO for welcoming us in Buenos Aires; Michel Levi and the team of the Andean University for receiving us in Quito; and Nicola Yeates, Tracey de Beer and Dawn Edwell from The Open University in Milton Keynes for their invaluable support, guidance and advice throughout the research. We would also like to especially thank Lien Jaques for his help with editing the text, figures and tables. Lastly, we would especially like to thank Ana Gabriela Alvarez Cruz, Maria Borda, and Alexandra Melissa Vida for their research assistance.

Ana B. Amaya, Philippe De Lombaerde and Stephen Kingah, Bruges (Belgium),

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CHAPTER 1: INTRODUCTION AND JUSTIFICATION OF THE PRARI TOOLKIT

South America has experienced significant economic growth in the last decade (World Bank 2015). However, as with other regions, the initial stages of this economic growth have been associated with a greater inequality (Morrison 2000). There are clear links between economic inequalities and health disparities (Brown 2000), which lead to the lack of access to health services and fewer opportunities for development. In South America, health systems are currently dealing with a double challenge: tackling traditional health problems, such as infectious diseases, maternal and infant deaths and an increasing prevalence of chronic diseases, which is the result of the significant socio-economic change in the region (Arriagada et al., 2005).

It is increasingly acknowledged that the processes and instruments of governance for development have to be used to improve social wellbeing. One of the elements of wellbeing that is often referred to is access to primary healthcare in a dignified and affordable way as a first step to accessing healthcare services in general. It is not by chance, therefore, that crucial processes such as the development of the Sustainable Development Goals (SDGs) assign a key weight to the promotion of a healthy life, including it as one of the goals (SDG3). This demonstrates the global consensus of the importance of access to primary healthcare as a step towards reducing inequalities or promoting development.

The debate on the optimum level of access to primary healthcare is also significant (ISAGS, 2013a). While attention has often been focused on national and worldwide levels, there is space for expanding the interventions on a regional/supranational level. Health collaboration on this level has the potential to respond to transnational health problems through cooperation between countries. Many regional organisations have recognised this potential by adopting key provisions in regional treaties, protocols, letters and declarations. UNASUR is not an exception in this sense.
UNASUR was established in 2008 as a political constellation which brings together members of the Andean Community (CAN, by its Spanish acronym) and the Southern Common Market (MERCOSUR), along with Chile, Guyana and Suriname. The origins of UNASUR can be traced back to the initiative of the South American Community (SAC) which had been formed in Cuzco in 2004. The main driving force of the SAC was the former president Lula of Brazil (Malamud 2011: 6). UNASUR’s founding treaty of 2008 contains many targets and among them a key target is promoting development in the countries. The treaty explicitly states in article 3 (j) that effective universal access to social security and to health services is an important objective for the Union. It is revealing that the text relates social security with health. The political leaders of the region have identified the attainment of health as one of the key focus areas for achieving development and reducing health inequalities in the region. This is explained in part by the clear differences in the region in terms of access to the health services. These inequalities are placed among the highest in the world, with a high level of marginalisation of indigenous communities in many countries of the region (Vilas 2008: 118).

The aim of the team constructing the indicators of the PRARI project is to facilitate the collaborative construction or joint development of a set of indicators that can be (mainly) used by regional decision makers to support them in monitoring health policies and their implementation. This PRARI Toolkit is, therefore, a guide to implementing a system of indicators to measure the scope of regional policies and the success of regional health policies in the context of UNASUR.

The aspects related to the measurement of health policies which are measured in this PRARI Toolkit contain an added value for UNASUR. The reduction of disparities among member states is a key goal of UNASUR and a measure of integration. This specific focus of UNASUR Health on health equity aims to deal with inequalities and in this way improve the living conditions of the whole population. This vision corresponds to article 2 of UNASUR’s founding treaty, which seeks to eliminate inequalities and achieve social inclusion:
“The objective of the South American Union of Nations is to build, in a participatory and consensual manner, an integration and union among its peoples in the cultural, social, economic and political fields, prioritizing political dialogue, social policies, education, energy, infrastructure, financing and the environment, among others, with a view to eliminating socioeconomic inequality, in order to achieve social inclusion and participation of civil society, to strengthen democracy and reduce asymmetries within the framework of strengthening the sovereignty and independence of the States.” (UNASUR, 2008: Article 2)

The indicators have been developed with a specific focus on access to primary healthcare and medicines, which are cross-cutting issues that have an effect on all populations. The PRARI Toolkit has the aim, amongst others, to demonstrate the difficulties and limitations that health sectors face in many countries when trying to resolve structural problems that perpetuate inequalities. A crucial dimension of this Toolkit is to measure the degree to which regional policies aimed at dealing with these areas reflect an aspect of reducing inequality. The Toolkit reveals the way in which regional policies are translated into internal policies.

How to use this monitoring system

The methodology proposed in this PRARI Toolkit is characterised by its inclusive nature and its flexibility. As such, it is a flexible system that captures the indicators at a national and regional level, and which highlights the indicators associated with reducing inequalities with a focus on two key areas: access to primary healthcare and access to medicines. These indicators seek to measure accessibility in these two areas with a final objective of reducing inequalities and improving health. Therefore, the indicators have been selected taking into account the social determinants of health.

Specific indicators which feature the Sustainable Development Goals (SDGs) are also included. Indicators which gauge goal 3 of the SDGs, which deals with health, as well as indicators provided by international organisations, are reflected mainly under
indicators of outcome and impact. As they complement these indicators, the PRARI indicators add value by identifying input, process, output and outcome indicators.

The proposed methodology presented must be considered an adaptable and flexible exercise which can be complemented and proportionally increased based on the needs identified by the end users. All the logical components have been dealt with, considering that additional priorities can be generated over time. Due to this, the PRARI Toolkit is a modular system that reflects the reality/need for interventions on a multi-level basis.

With regard to the data collection period, it is suggested that monitoring is aligned with the current practice in UNASUR and in the context of other international organisations. In relation to the additional indicators which are not currently being compiled, it is suggested that the ministries of the countries and regional officials report this data annually.

It is reiterated that this PRARI Toolkit has considered the work that has been carried out up to now in UNASUR (Garron et al. 2013). This Toolkit builds upon and strengthens these efforts with a view to filling the gaps and needs for strengthened monitoring in UNASUR.

The experiences of constructing other systems of regional monitoring were taken into account during the construction of the PRARI Toolkit (De Lombaerde, Estevadeordal and Suominen 2008; De Lombaerde et al. 2010). In turn, there is an awareness of the lack of regional monitoring activities in South America, particularly with regard to the development of indicator systems, compared to other regions. This also applies to the Andean Community and to Mercosur (Adiwasito et al. 2005; Prada and Espinoza 2008; Rozemberg and Bozzalla 2008).

This Toolkit document consists of five chapters. Chapter 2 explains the production process of the indicator system and presents the actors involved. Chapter 3 provides an introduction to the conceptual framework and discusses some additional
methodological matters. Chapter 4 presents the indicators, and chapter 5 explains how the PRARI Toolkit can be implemented. This is followed by the list of references and annexes.

CHAPTER 2: THE PROCESS OF DEVELOPING THE PRARI TOOLKIT

When exploring the experiences with other monitoring systems based on indicators at the regional level, we find that, among other factors, local participation and leadership are essential for developing and implementing these types of systems (De Lombaerde, Pietrangeli and Weeratunge 2008; De Lombaerde et al. 2010). To respond to this need, the methodological approach which was used to construct these indicators was participatory action research (PAR) (Amaya and Yeates 2015). This means, among other things, that end users of the PRARI Toolkit were involved in its conceptualisation, development and implementation from the outset.

The PAR approach was used to develop, in a collaborative way, indicators to measure the success and change produced by regional health policies. This approach differs from traditional research by considering the knowledge of local actors and beneficiaries of the system. In this sense, the actors who are affected by these policies are those who serve as a main source of information and are involved in all the stages of the process, such as the identification of the problem and its analysis in order to jointly come to solutions. In addition, this approach involves cycles of action and reflection, where the results and data are continually questioned and analysed. This makes sure that the change is lasting by ensuring that there is a learning process and an exchange of information (Mahoo 2012). In the same way, PAR differs from traditional research by giving researchers a facilitating role with a focus on empowering local actors to build their own knowledge and respond to their needs (see Amaya and Yeates 2015 for an extended discussion of the methodological approach of PAR).
The process of developing the PRARI Toolkit by means of PAR involved the formation of an “indicator development team” in the UNASUR region through the organisation of regional workshops to debate key issues. The team was composed of around 12 key actors from the region representing universities, ministries and regional organisations. Although it was not possible to involve all the countries in the region for logistical and financial reasons, we sought to identify key actors, maintain a gender balance and represent various sectors. The challenges involved in this process included the need to promote a consensus among the team and logistical issues in organising interactions with different actors based in various countries and time limitations characteristic of a relatively short research project.

The indicators developed for the PRARI Toolkit are based on needs identified by actors embedded within the region. The two pilot areas were decided by consensus between the team building the indicators during the workshops by considering the priorities of UNASUR Health and the opportunity to have an impact on the work in the region. The first workshop (Rio de Janeiro, Brazil, November 2014), was the chance to debate the need of that monitoring system for the region and to draw up, among the majority of participants, a policy report (Amaya, Cabral, Coitiño et al., 2015). In that policy report, the importance of a regional PRARI Toolkit of health indicators was explained as well as highlighting some of the key elements and areas to be monitored.

The following workshop (Ciudad Mitad del Mundo, Ecuador, July 2015) was used to debate the difficulties and limitations that the health sectors face in many countries in order to be able to resolve the structural problems that perpetuate the inequalities and to arrive at an agreement on the conceptual framework which will govern the PRARI Toolkit of indicators, the pilot areas to be explored and to begin to discuss possible indicators. The final workshop (Buenos Aires, Argentina, October 2015) provided a space for debating the draft of the PRARI Toolkit and for discussing the indicators in more depth.
The role of process facilitators was led by UNU-CRIS, in collaboration with other members of the PRARI project. In addition to workshops, the PRARI Toolkit is formed on the basis of continual communication by different electronic means with the team, as well as some interviews with other actors of the region.

CHAPTER 3: CONCEPTUAL FRAMEWORK AND OTHER METHODOLOGICAL ASPECTS

3.1 How are health conditions and health policy indicators defined?
Health policies have been defined as “courses of action (and inaction) which affect the group of institutions, organisations, services and mechanisms of financing of the healthcare system” (Buse et al 2012:.6). According to the World Health Organisation (WHO), they can also be defined as the decisions, plans and actions which are carried out in order to achieve specific health objectives (WHO 2015).

The precise delimitation of health policies is not necessarily simple and it complicates the construction of a monitoring system based on indicators. There is a tendency to broaden the scope of the health policies, inspired by the literature on social determinants of health (Marmot 2005; Puska 2007; WHO 2008). Although, at first, a relatively strict interpretation of health policies is opted for, there is full awareness of the many transpositions between the health policies and other policy areas (Figure 1). It will be incumbent on the users of the indicator system to decide when and if the broadening of the indicator PRARI Toolkit in this direction is desirable (or not).
Health policy indicators are numerical/quantitative or qualitative measurements which are used to determine whether the objectives of the established health targets are being met. When there are objectives for these indicators, they can be used as points of reference. These indicators are common to national and sub-national levels of government (Aller et al, 2015: 1). At these levels, national offices of statistics are crucial in the supply of necessary data and information. Monitoring and evaluation units within the ministries of health, as well as in other ministries including finance and national offices of statistics, play an important role in developing these types of useful indicators in the monitoring of changes in policies and success in the health field.

On a global level, the World Health Organisation (WHO) has established goals and objectives, the realisation of which is measured with clear indicators that are widely used by the decision makers, both on an international and national level. Other international organisations, such as the United Nations Development Programme (UNDP), the Joint United Nations Programme on HIV/AIDS (UNAIDS), the United Nations Children's Fund (UNICEF), multilateral development banks, among others, have also established indicators to measure the success and failure of health policies.
The development of indicators at a regional level can appear incipient but it is gaining ground. The indicators are frequently provided by the WHO regional offices or by regional organisations. The indicators can be focused on either specific illnesses, sensitive issues or they can cover the whole system.

3.2 What is meant by monitoring regional policies?

Monitoring in this context refers to the monitoring and evaluation process of the application and impact of policies. In particular, it can also mean “a series of relevant processes of compiling, processing and distributing information with the aim of influencing, checking and/or evaluating the policies of regional integration or in order to ensure their application” (De Lombaerde 2008: 284). As De Lombaerde and his colleagues state “monitoring has the ability to make the integration processes more transparent, involving a greater degree of participation and legitimacy and, therefore, making the processes more sustainable” (De Lombaerde, Pietrangeli and Weeratunge 2008: 41). In his study on monitoring integration in the Caribbean, Girvan suggests that the potential value of surveillance is in decreasing the periods of learning cycles and improving the accuracy of problem identification and intervention (Girvan 2008: 51).

Successful monitoring must be preceded by the core issues in relation to the object that is the subject of the monitoring, the purpose of the monitoring, the modus operandi thereof and the agents that participate in the monitoring (Bilal 2009). Monitoring must also be motivated by a reason. Some of the possible reasons for the monitoring include improving development, evaluation of progress and presentation of evidence respecting the capacity of an institution to implement its policies (Bilal 2009). Monitoring that has clear indicators allows institutions to challenge conventional wisdom and assumptions about the success of the regional process (De Lombaerde 2008: 284). The modus operandi or methods for monitoring regional integration can vary depending on what is being monitored. The means or methods
used will largely influence the result of the process. The method will be subject to the availability of data, the ability to control and the objective of the process.

3.3 Why are indicators of regional health policies important (useful)?

Monitoring based on indicators of regional health policies, which is the objective of this proposal, uses indicators that are implemented by the regional organisations to help decision makers monitor the degree of success or failure of the application of the health policies and the disciplines which have been agreed on at a regional or supranational level.

Estimating the state of health of a population can be very controversial (Byass, 2010; Editors, PLoS Medicine, 2010). That is why specific tools, such as indicators can be useful in providing a rough map of the reality. Regional indicators of health policies are useful for measuring the change of regional health policy, success, stagnation or failure and to help domestic policy makers to make course corrections when necessary in the implementation process.

They are also indicative of health priorities for regional organisations, whether for internal or external interest groups. As for those involved on a domestic level, the indicators can be very useful for authorities working in regional organisations in policy areas that enter into social determinants of health. Social determinants of health include items such as: fair employment, income security, educational opportunities, active communities (Lantz and Pritchard, 2010). For external interest groups, including international development partners (IDPs), multilateral development banks (MDBs), philanthropists, foundations and businesses, signposting helps them identify areas where there is room for complementarity.

All of them are related to the fact that the indicators help corroborate performance or lack thereof. Yang and Holzer summarise six factors behind the use of performance data. These include: system maturity, stakeholder participation,
leadership support, support capacity, culture of innovation, and clarity of purpose (Yang and Holzer, 2015: 361). From a perspective of historical institutionalism of the evolution of Management By Objectives and Results (MBOR) in Denmark, Norway and Sweden, it is stated that: "Instead of treating the benefit scheme MBOR as a technical ideal, with clear limits it is an institutional option that has various institutional configurations and which is affected by path dependence and the institutional context" (ibid: 362).

All these elements also refer to the importance of evidence in decision making. Anderson et al. (2005: 226) point out that the use of scientific knowledge for policy development has grown. While the demand for evidence in public health is at its highest point, public health is still below the material base for making decisions based on comprehensive evidence (Anderson et al., 2005: 228). It is said that evidence based decision making has many benefits (ibid). Regional health indicators are an important component in evidence based decision making. Similarly, Boerma and colleagues argue that health indicators are essential in guiding the development and allocation of resources, but they often lack data (Boerma et al, 2010: 1). For them, there is a need to strengthen the way that estimates of health indicators are generated (Boerma et al, 2010: 2). The indicators help to summarise a large amount of data into useful and viable measures.

Related to this topic, Brownson et al. (2010) argue that to improve health, qualitative and quantitative evidence is required, adding that effective health policies and resource allocation can improve public health outcomes. They believe that policy makers are on the receiving end of data that is often chaotic. Therefore, it is essential to have clear tools to assess the burden of disease, set priorities and measure progress (ibid). An adage of public health, they note, is: "what gets measured gets done" (ibid).

Finally, the development process of indicators that involve those responsible for regional health policies, downstream users of the PRARI Toolkit of indicators, is an important learning process for all involved. Coburn and Cohen argue that "the
lessons from other fields and emerging experiments around the world suggest that indicator processes can integrate science, politics, and the community to promote greater equity in health" (Corburn and Cohen, 2012: 5). The experience acquired in the chapter of PRARI indicator development is corroborative of this pattern of mutual learning between policy makers, researchers and NGO participants who have actively contributed to the development of the indicators. It is also the result of consensus among the different actors who may use this tool to strengthen the institutional work of UNASUR and the health policies of countries in the future.

3.4 Into which logical categories can the indicators be arranged?

In our proposal, the system design of indicators follows the logical chain of results; subsets of indicators are classified as input, process, output, outcome and impact indicators (table 1). This classification is widely used in the literature on the development of health indicators (see, for example Boerma, AbouZahr, Evans and Evans, 2014: 3 et eq.).

Table 1: Defining input, process, output, outcome and impact indicators

<table>
<thead>
<tr>
<th>Category</th>
<th>Input</th>
<th>Process</th>
<th>Output</th>
<th>Outcome</th>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Definition</td>
<td>They provide a follow up on all financial and physical resources related to the implementation of a policy or programme.</td>
<td>They seek to assess whether the policy is being implemented as planned and how well the activities are carried out.</td>
<td>They cover all the goods and services generated by the use of inputs. They report on the results of the efforts (inputs and processes/activities) at the programme or policy level.</td>
<td>They measure the level of access to public services, the use of these services and the level of user satisfaction. They usually depend on factors beyond the control of the implementing body (such as the behaviour of individuals or other factors).</td>
<td>It measures in the long-term, the cumulative effects of policies over time on the health of the population and welfare or on the larger social system.</td>
</tr>
</tbody>
</table>
This classification suggests a causal sequence between the different sub-sets of indicators. However, some preliminary observations must be made. The first is that, even if there is an implicit causal logic between the sub-sets, this does not mean that any correlation found in the movement of the indicators of subsequent two categories should be interpreted as a demonstration of causality. The logical causality plays at the level of subsets, but cannot be traced on the level of individual indicators. There are many factors that determine the behaviour of the individual indicators in each category. Necessarily, many of these factors are not captured by the system of indicators. Demonstrations of cause-effect on the level of indicators, requires an additional statistical analysis that goes beyond the scope of a system of indicators.

It is also important to note that in this PRARI Toolkit output indicators reflect the perspective of the decision makers, while the result indicators adopt a user perspective.

The "impact" category (which contains indicators that directly reflect the health situation of citizens of a country or region in particular) is clearly both a logical end point and a starting point when thinking about regional (and national) health policies (Figure 2).

Figure 2: Logical organisation of the indicator system
Moreover, even if we think it is useful to adopt such result chain logic, this does not necessarily mean that health problems are understood as a system characterised by a unilinear causal logic. On the contrary, we are aware that the health system is a more complex system with double causalities and other attributes of a complex system.

The indicators in each logical category can be sub-classified even further and in various ways. One option is to distinguish between "regional" indicators (at the UNASUR level) and "national" indicators (Figure 3). This option highlights the nature of multi-level governance of modern health policies and keeps the focus on interactions between policy levels. While there are different indicators for each of these levels, these are often linked. For example, the inputs developed at the level of Secretariat which are directed at a specific country, it is natural that they become inputs nationwide.

Another option is to organise indicators by priority areas of policy (regional) (Figure 4), which allows more direct control of policy actions in specific priority policy areas. Following this option, it is recommended that a general indicator category is added because not all the variables of a relevant policy are specific to a policy priority (or specific to the disease) and not all relevant impacts can be attributed to specific lines of policy action. Obviously, in the event of partaking in one option or another, this can be combined with a secondary sub-classification after the alternative option. In addition, when the indicators are codified correctly in a database (in other words, one that reflects it belonging to a logical category, its measurement level, its link to a policy priority, etc.), they can easily be combined, recombined and presented in accordance with the needs of the users. In this document, we are going to opt for an organisation in the area of priority policies and they are focused on access to primary healthcare (ISAGS 2015) and medicines as pilot cases because this corresponds to the concerns of the interested parties as is expressed in the PAR process which leads to the development of this System of Indicators (Figure 5). However, this system is sufficiently flexible to easily reorganise the indicators.
Figure 3: Classification of the indicators by logical categories and measurement levels

- Input Indicators
- Process Indicators
- Output Indicators
- Outcome Indicators
- Impact Indicators

National Indicators (member states)

Regional Indicators (UNASUR level)

Figure 4: Classification of indicators by logical categories and priority policy areas

- Input Indicators
- Process Indicators
- Output Indicators
- Outcome Indicators
- Impact Indicators

General indicators

Regional Priority Policy 1

Regional Priority Policy 2

...
In terms of the adequate metrics the objective has been to keep the system accessible, clear, coherent and sufficiently integrated. For each indicator a denominator and a numerator will be established (priority to be assessed).

It is important to note that the actions of the national, regional and supra-regional levels are closely related by that which the sequencing of the indicators in those levels can also be related. For example, if the UNASUR Health Council agreed on a statement regarding access to similar biological medicinal products (generic products), which was proposed, negotiated and agreed within the WHO framework, this ruling of the WHO can then be used at the level of one of the member countries of UNASUR for sanctioning the standard which regulates biological medicinal products; reflecting the transfer of regional health policies at different levels. In addition, if other countries outside the region adopt the guidelines agreed by WHO, this could have an impact on the region through the importing of generic products.
produced in countries outside the region which could make progress in this line supported in the WHO ruling (product of the work of UNASUR).

3.5 How to build the “reduction in health inequalities-regional integration” link?

The main added value of the PRARI indicators is that they are responsive to two aspects: the reduction of inequalities and regional integration. Many indicators on a national and global scale capture vital aspects of health systems and specific diseases. To complement these existing national and global efforts, the PRARI indicators capture those aspects of the change in regional health policy which are distal proxies and close to regional integration and reduction in inequalities.

Regional integration is dealt with here in a flexible way. It incorporates all the cross-border aspects of the cross-border flows which have links with health policy.

The aspect of reducing the inequalities of the indicators seeks to reflect the importance of “people” in the development of indicators in the drawing up of regional health policies and their implementation. While some still pay more attention solely to national health systems in the broad sense, Frenk argues that health is increasingly considered as a wider part of development. Given that a large amount of money is allocated to health, more money is not the only requirement for progress and the “people” component must be taken more seriously in the area of public health (Frenk, 2010: 1; cf: Haines, 2015: 2328).

At the regional level, UNASUR has focused on reducing disparities or inequalities. Using this logic, a region with a high level of integration is characterised by the fact that the health conditions and its determinants are very similar to one another (similarities in terms of mortality rates, life expectancy, access to health services, clean drinking water, poverty levels, national inequality levels, etc.). This concept proposes regional integration as something that goes beyond the issues of geographical closeness and the development of complementarities between countries when sharing similar socio-economic and cultural indicators.
This is closely related to the topic of Universal Health Coverage (UHC). Many countries lack explicit frameworks for monitoring the UHC (Boerma et al, 2014: 2; cf: Kutzin, 2013). What is most required includes a comprehensive system of health information, given that the lack of data regarding population needs is an enormous problem (Boerma et al, 2014: 4). Effective coverage in this context means: measuring the need, use and quality of the services (ibid), particularly for the most vulnerable groups in the respective regions.

The aspect of reducing inequalities can be developed even more through the incorporation of additional data for the existing indicators, differentiated by:

- Demographic groups (gender, by age, among other things);
- Geographical area (urban, rural);
- Sub-national regions (departments, provinces);
- Socio-economic categories (including income categories); and/or
- Social groups (ethnic groups, religious groups, among others).

The added value of incorporating these sub-indicators will have to be weighed against the cost of substantially multiplying the number of indicators in the system.

3.6 How to integrate the SDGs that are related to health?

On 31 December 2015, the Millennium Development Goals (MDGs) will officially come to an end and the Sustainable Development Goals (SDGs) will take the lead. While the MDGs were focused mainly on poverty and health, the SDGs emphasize the environment, human rights and gender equality.

The Millennium Development Goals

There were six main MDGs which were related directly to health. All the goals focus on the period 1990 - 2015. The first relevant health goal was the MDG 1 to *Eradicate Extreme Hunger and Poverty*, the aim of which was to halve the proportion of people
suffering from hunger. The fourth MDG was aimed at *Reducing Infant Mortality* through a reduction by two thirds of the mortality rate in children under five years old. The fifth goal sought to *Improve Maternal Health* through a reduction by three quarters of the maternal mortality rate. The sixth was aimed at *Fighting HIV/AIDS, malaria and other diseases*, by halving the number of cases of HIV/AIDS, malaria and other diseases and starting to reverse their spread. The seventh goal was to *Ensure Environmental Sustainability*. The relevant health goal involved halving the proportion of people without sustainable access to the supply of clean drinking water and to basic sanitation services. Lastly, the eighth relevant health goal in the MDGs was to *Develop a Global Partnership for Development*. The relevant health goal would refer to cooperation with pharmaceutical companies with the aim of providing access to affordable essential drugs in developing countries.

Health occupied an important position in the MDGs, transmitting the idea that health is essential for development. Six of the eight goals concerned were related directly or indirectly to health and eight out of 21 goals were related to health. On the other hand, these objectives were established in terms of a decrease in the percentages. The main criticism was the omission of issues that featured in the Millennium Declaration and the absence of political consultation in the whole process (Alleyne, Beaglehole and Bonita 2015).
The Sustainable Development Goals (SDGs)

The Post-2015 Agenda aims to deal with the challenges that outlast the MDGs. The process of forming the SDGs is politically inclusive and consultative. In turn, it can define a more general set of goals. There are 17 objectives and 189 goals, doubling the objectives of the MDG and increasing fivefold the aims of MDGs. Political consensus has been achieved but the aims are characterised as general and vague. There is also a relatively small set of priorities directly linked to health. There is a specifically relevant health objective (SDG3), which includes nine goals and nine additional aims arising from other objectives relating to health.

The third SDG, “To ensure a healthy life and promote well-being for everyone at any age”, highlights the call for solidarity: “No-one should be left behind”. The nine aims of this goal cover a variety of already familiar topics and other new ones and they strive to achieve that which is pre-established for the deadline of 2030. These are given in Table 2.

There is a desire to speed up the progress regarding the reduction of newborn, infant and preventable maternal mortality as well as concerns for adolescents. A similarly ambitious objective is to fight and end malaria, HIV/AIDS, tuberculosis, hepatitis, Ebola and other contagious diseases and epidemics. More recent goals include improving mental health, wellbeing and non-communicable diseases such as behavioural, development and neurological disorders. Preventing smoking, harmful alcohol consumption and substance abuse, family planning and education, traffic accidents as well as environmental factors and their relation to health are all supplementary goals to be taken into account. Lastly, the most discussed aim of the SDG 3 is the call for universal health coverage under the adage that “no-one should be left behind” and a focus on vulnerable groups.

There are nine additional SDGs whose goals are important for health. The second SDG aims to “End hunger, achieve food security and improved nutrition and promote sustainable agriculture”, guaranteeing that the poor and vulnerable gain access to
healthy, nutritious and sufficient food, putting an end to all forms of malnutrition. SDG 5, which focuses on gender equality, has a clause to guarantee universal access to sexual and reproductive health and to reproductive rights. The sixth SDG seeks to “Ensure the availability and sustainable management of water and sanitation for all”.

The goals associated with this strive to achieve universal and equal access to a supply of clean and safe drinking water, at a reasonable price, and access to adequate and fair hygiene and sanitation services, with particular attention paid to women and girls. SDG 7, whose emphasis is on energy, could also increase the services that hospitals and community health centres provide. SDG 9 focuses on resistant infrastructure, which could be of considerable benefit for hospitals and health centres. The eleventh SDG focuses on human settlements and safe and healthy homes. SDG 12, goal 13, aims to achieve correct and complete management of chemicals and waste with the aim of protecting human health and the environment. Lastly, the “Peace and Stability” SDG (16) can have a positive impact on the mental and physical health of communities (OWG 2015).

The measuring of the attainment of the SDGs and other regional policies will give countries and the Secretariat of the UNASUR the basis for carrying out a monitoring of the coherence of these policies with these objectives established globally, in order to quickly identify the countries that require support to achieve those objectives and to coordinate efforts in the measuring that is already taking place.

The list of sub-goals of the SDGs which are closely related to health are given in table 2. Figure 6 shows that the SDGs related to health can be classified in accordance with logical categories. The complete list of health-related SDGs is given in annex 2.
Table 2: Sustainable Development Goals pertaining to health

<table>
<thead>
<tr>
<th>Sustainable Development Objective specific to health</th>
<th>Goal</th>
</tr>
</thead>
</table>
| 3. Ensure healthy lives and promote well-being for all at all ages | 1) Reduce the global maternal mortality ratio to less than 70 per 100,000 live births  
2) End preventable deaths of newborns and under-five children  
3) End the epidemics of AIDS, tuberculosis, malaria, and neglected tropical diseases and combat hepatitis, water-borne diseases, and other communicable diseases  
4) Reduce by one-third premature mortality from non-communicable diseases (NCDs) through prevention and treatment, and promote mental health and wellbeing  
5) Strengthen prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol.  
6) Halve global deaths and injuries from road traffic accidents (by 2020)  
7) Ensure universal access to sexual and reproductive health care services, including for family planning, information and education, and the integration of reproductive health into national strategies and programmes  
9) Substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water, and soil contamination |

3.7 How to select individual indicators?

The potential range and number of health indicators is huge (Larson and Mercer 2004: 1199). Faced with this reality and due to the existence of limited resources it is recommended and considered advisable to select some areas which can be correctly monitored (ibid). Larson and Mercer highlight that the characteristics of a good system of health indicators include: being defined (applicable internationally), being valid, (measures what it claims, replicable and interpretable), feasible (particularly in the collection of data), and useful (ibid). They suggest that particularly in contexts where resources are limited, the developers of indicators should focus on a small number of health indicators that measure areas of high priority. They should use more efficient sampling frames and make use of standard international definitions (Larson and Mercer 2004: 1200).

The indicators in the PRARI Toolkit were selected based on regional priorities and priorities of the Member States (including non-governmental bodies); their inclusion in international declarations to which Member States are subscribed; whether the indicator is being used by countries in the monitoring of national plans and
programmes; whether it is based on existing projects; and if it fulfils the original aims of this exercise.

In addition, the indicators were selected by following the “SMART” criteria. This means that the indicators are: Specific (focused and clear); Measurable (quantifiable and capable of reflecting change); Accessible (reasonable in their scope and achievable within a set timeframe); Relevant (appropriate to the performance review); and with a set/traceable duration (progress can be traced by chronological order) (MLE, 2014).

Other considerations used in the selection of an indicator were (Parrish, 2010):

- The indicator is valid and reliable
- The indicator can be understood by the people who must make decisions
- The indicator galvanises action
- The action can improve the indicator
- The indicator measurement reflects over time the effect of the action - ceteris paribus (all other things being equal)
- The indicator measurement is feasible
- The data for the indicator is available for the different geographical levels and population sub-groups.
- The indicator is sensitive to changes in other social areas (socio-economic, environmental or public policies)

3.8 What are the sources of the specific indicators?

National indicators meet health priorities fixed by governments of the Member countries, large international health organisations and other institutions. Regional indicators were selected according to the priorities that UNASUR Health have fixed in their working documents and agreements. Following the guidelines established in those documents is crucial for avoiding duplication of efforts and determining the state of health of populations (Brownson et al, 2009: 1576).
Furthermore, the indicators were selected and discussed during the PRARI workshops and during the indicator development meetings mentioned beforehand. Through these meetings the facilitators had the opportunity to directly listen and cooperate with those who will be the end users.

In Annex 1, it is indicated whether the statistical data for measuring the indicators is available and, if so, what are the statistical sources.\(^3\)

It should be taken into account that a distinction must be made between the measurement level and the production site (and publication) of the indicators. Theoretically, various combinations of measurement levels are possible (figure 7).

**Figure 7: Measurement level versus production site of data**

<table>
<thead>
<tr>
<th>Source Measurement Level</th>
<th>National</th>
<th>Regional (and extra-regional)</th>
</tr>
</thead>
<tbody>
<tr>
<td>National</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regional (and extra-regional)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**3.9 What is the baseline for the indicators?**

Taking into account that UNASUR is a relatively new organisation that has extended its participation in the last five years; we use 2010 as a baseline for indicators, which is the start date of the first UNASUR Five-Year Health Plan (2010-2015). This will allow us to collect more complete information regarding the changes that have taken place in the region in the last five years, as well as the way in which ISAGS and

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\(^3\) Regarding the production of statistical data on health in South America within a context of multi-level governance, see Amaya et al. (2015).
UNASUR-Health in general, have matured as institutions of regional integration of health.

It is expected that the data from these indicators will be collected annually, except in circumstances where the specific indicator is substituted less frequently. This frequency will provide a reasonable period of time for the complete institutionalisation of the PRARI Toolkit, which is a challenge for any system monitoring health (Oliver, 2010).

The collection of these indicators requires a degree of commitment on the part of the country and regional officials. However, it must be taken into account that many of these indicators are already being collected either as basic indicators of health which are reported to the WHO or as part of other monitoring systems. This means that the reporting burden will be less and its complementarity with various new indicators will increase the wealth of information and allow for a better interpretation of the results.

Lastly, this monitoring system is being developed while the five-year plan is being discussed. An important objective of this monitoring system is to both support this discussion process and provide a practical tool for evaluating the contribution of UNASUR Health in the access to primary healthcare and medicines in its new phase of work.

3.10 Limitations

Firstly, the large number of indicators included could be symptomatic of the scope of priorities and issues that the region face. The multiplicity of indicators makes the difficulties in reporting that national officials may have worse. Some maintain that the benefits derived from the information are not always apparent (Hibbard, 2008: 160). The development of indicators that are applicable to many countries of a diverse region can be a complex task and it also involves making key choices
(Boerma, AbouZahr, Evans and Evans, 2014). In any case, what we have wanted to highlight is the relevance of the indicators for UNASUR. The fact that the information required is available for regional health policy-makers to substantially support specific regional indicators helps mitigate this apparent challenge.

**Chapter 4: The Indicators**

This PRARI Toolkit is composed of 151 indicators. The baseline suggested for the Toolkit is the year 2010, the start date of the Five-Year Plan of UNASUR Health (2010-2015). The use of this baseline will provide a level of comparison against which they will be able to confirm trends and/or evaluate the success of regional policies. We suggest as an annual collection of data for this PRARI Toolkit to monitor the scope of the policies and readjust interventions.

In this proposal, the SDGs are partially dealt with in order to have a list of manageable indicators. However, they can readily be included in their entirety. The total list of SDGs related to health is provided in Annex 1.
### 5.1 General indicators

#### General health indicators

<table>
<thead>
<tr>
<th>INPUT</th>
<th>PROCESS</th>
<th>OUTPUT</th>
<th>OUTCOME</th>
<th>IMPACT</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Percentage of total current expenditure on health (% of GDP)</td>
<td>• Number of training programmes for health workers (per 1000 workers)</td>
<td>• Density of hospital beds</td>
<td>• Proportion of the population who have to travel for more than 1 hour to get to the primary level healthcare centre</td>
<td>• Maternal and infant mortality rate</td>
</tr>
<tr>
<td>• Expenditure on continuous training programmes for primary and secondary healthcare</td>
<td>• Number of continuous healthcare training programmes</td>
<td>• Hospital beds per 1000 inhabitants (urban and rural distribution)</td>
<td>• Use of services</td>
<td>• Mortality rate due to chronic illnesses</td>
</tr>
<tr>
<td>• Out-of-pocket health expenditure (% of current health expenditure)</td>
<td></td>
<td>• Distribution of primary and secondary healthcare establishments in urban areas</td>
<td>• Access to health services</td>
<td>• Mortality rate from infectious diseases</td>
</tr>
</tbody>
</table>

**SDG 3c:** Substantially increase financing for health and recruitment, development, training and retention of human resources in health:

- Portion of the population protected against impoverishment due to out-of-pocket health expenditure
- GINI index

**SDG 3:**
- Life expectancy at birth

\[\text{Possibly disaggregated by urban and rural population}\]
<table>
<thead>
<tr>
<th>Variance percentage of expenditure on human resources in health</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distribution of health workers in rural areas</td>
</tr>
<tr>
<td>Number of health worker graduates</td>
</tr>
<tr>
<td>Number of professionals who have completed continuous training programmes in healthcare</td>
</tr>
<tr>
<td>Density of health workers in rural areas</td>
</tr>
<tr>
<td>Density of health workers in urban areas</td>
</tr>
</tbody>
</table>

against catastrophic expenditure caused by out-of-pocket health expenditure
5.2 Indicators regarding access to primary healthcare (PHC)

<table>
<thead>
<tr>
<th>INPUT</th>
<th>PROCESS</th>
<th>OUTPUT</th>
<th>OUTCOME</th>
<th>IMPACT</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Existence of human resources policies in PHC</td>
<td>• Proper implementation of policies for the promotion of human resources in PHC</td>
<td>• Employee density in PHC</td>
<td>• Percentage of homes whose members have to travel more than 1 hour to get to the nearest primary healthcare centre</td>
<td>• Percentage of households with affordable primary healthcare coverage</td>
</tr>
<tr>
<td>• Existence of adequate HR distribution policies in PHC</td>
<td>• Proper implementation of policies for the proper distribution of human resources in PHC</td>
<td>• Density of PHC staff in rural areas (per 1000 inhabitants)</td>
<td>• Percentage of first level PHC consultations</td>
<td>• Prevalence of anaemia in children aged 6-59 months</td>
</tr>
<tr>
<td>• Expenditure on PHC infrastructure and human resources</td>
<td>• Number of PHC training institutions</td>
<td>• Number of primary healthcare units</td>
<td>• Percentage of first level PHC consultations</td>
<td>• Percentage of children under 5 who are malnourished (moderate and severe)</td>
</tr>
<tr>
<td>• Percentage of the budget allocated to PHC</td>
<td>• Number of continuous education PHC programmes</td>
<td>• Number of PHC graduates</td>
<td>• Immunisation coverage for each vaccine in the national schedule</td>
<td></td>
</tr>
<tr>
<td>• Expenditure on continuous training in PHC</td>
<td>• Number of health promotion</td>
<td>• Number of PHC workers</td>
<td>• Percentage of diabetics in the Hbc&lt;6 control</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percentage of total current health expenditure (% of GDP) intended for PHC</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percentage of the PHC budget to promote health</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percentage of the PHC budget to promote health programmes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percentage of professionals that have completed continuous training programmes in PHC</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percentage of children under 5 years old that receive accompaniment (healthy children check, growth check)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coverage of adult patients with diabetes/hypertension</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of leaflets, advertisements or other means of dissemination to promote healthy lifestyles.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coverage for the promotion of the health of people of all ages</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**SDG 3, sub-goal 8:**
- Coverage of antenatal care (+ 4 visits)
- Immunisation coverage (full or DTP3)

**SDG 3, sub-goal 8:**
- Percentage of births carried out by qualified healthcare staff

- Percentage of patients with hypertension in the diastolic <90 control programme
<table>
<thead>
<tr>
<th>At regional level</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Expenditure of UNASUR on training to carry out the PHC strategy.</td>
</tr>
<tr>
<td>• Expenditure in respect of PHC coordination and meetings</td>
</tr>
<tr>
<td>• Number of Resolutions/regional agreements in favour of accessing PHC</td>
</tr>
<tr>
<td>• Total expenditure of UNASUR in PHC</td>
</tr>
<tr>
<td>• Number of training sessions to train PHC experts</td>
</tr>
<tr>
<td>• Number of experts bringing proposals of UNASUR to multilateral spaces.</td>
</tr>
<tr>
<td>• Number of meetings/regional events to discuss actions</td>
</tr>
<tr>
<td>• Number of countries participating in coordination meetings regarding access to PHC</td>
</tr>
<tr>
<td>• Proper implementation of PHC policies from UNASUR agreements</td>
</tr>
<tr>
<td>• Number of regional working groups to discuss actions to improve access to PHC</td>
</tr>
<tr>
<td>• Number of proposals made in favour of global access to PHC</td>
</tr>
<tr>
<td>• Number of trained experts that replicate the learning⁵</td>
</tr>
<tr>
<td>• Number of experts trained in the implementation of PHC</td>
</tr>
<tr>
<td>• Number of countries with the highest rate of distribution of PHC services</td>
</tr>
<tr>
<td>• Number of countries with improved PHC strategies</td>
</tr>
<tr>
<td>• Number of partnerships with other agencies on issues of access to PHC</td>
</tr>
<tr>
<td>• Number of common positions on PHC from UNASUR in multilateral spaces</td>
</tr>
<tr>
<td>• Average rate of access to PHC among member countries</td>
</tr>
</tbody>
</table>

⁵These can be used as inputs of indicators at national level
- Number of acts, agreements from coordination meetings on access to PHC
- Number of meetings with other regional bodies on the issue of access to PHC
- Number of projects with other bodies regarding access to PHC
5.3 Indicators regarding access to medicines

<table>
<thead>
<tr>
<th>INPUT</th>
<th>PROCESS</th>
<th>OUTPUT</th>
<th>OUTCOME</th>
<th>IMPACT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public investment in pharmaceutical education</td>
<td>Amount of public and private pharmaceutical training institutions.</td>
<td>Distribution of pharmacy staff graduates in rural and urban areas</td>
<td>Annual variation of the (retail) market price index</td>
<td></td>
</tr>
<tr>
<td>Human resources policies for pharmaceutical resources</td>
<td>Proper implementation of the policies for the promotion of total pharmaceutical human resources</td>
<td>Density of pharmacists</td>
<td>Amount of medicines out of stock</td>
<td></td>
</tr>
<tr>
<td>Existence of proper HR distribution policies in pharmaceutical resources</td>
<td>Proper implementation of policies for the proper distribution of total pharmaceutical human resources</td>
<td>Total number of pharmacists in the country</td>
<td>Free coverage of HIV/AIDS medicines</td>
<td></td>
</tr>
<tr>
<td>Existence of promotion rules for the use of generics</td>
<td>Proper implementation of</td>
<td>Density of pharmaceutical workers in rural areas x 1000 inhabitants</td>
<td>Free basic and essential medication coverage</td>
<td></td>
</tr>
<tr>
<td>Existence of national production promotion</td>
<td></td>
<td>Percentage of national medication production</td>
<td>Relationship between domestic and international prices</td>
<td></td>
</tr>
</tbody>
</table>

**National level**

- Density of pharmaceutical workers in rural areas x 1000 inhabitants
- Percentage of medicines imported
• Existence of a list of medicines that are guaranteed by governments
• Does the list include high cost medicines?
• Is financing in the public system complete?
• Is financing in the private system complete?
• Current expenditure for imports of medicines in relation to total imports
• Are the regional (MERCOSUR/UNASUR) regulations regarding joint purchases applied in the country?

rules to promote the use of generic medicines
• Existence of a public-private alliance to develop different outputs:
• Existence of periodic updating: is the list of specialised medications updated periodically?
• Proper implementation of policies from agreements made by UNASUR on access to medicines

• Existence of good practices for the manufacture of medicines
• Existence of pharmacovigilance practices
• Percentage of medications produced in the country
• How many joint purchases of medications took place with other countries?

• Percentage of export of medications

SDG 3, sub-goal 8: Universal health coverage including protection against financial risks, access to basic and quality healthcare services and access to medicines and safe, effective and affordable vaccines for all:
• Percentage of people with health coverage including medications and vaccines
• Existence of subsidies for medications for low-income people

SDG 3b: Research and production of vaccines and medicines and the supply of basic vaccines, in accordance with the Doha Declaration,
which establishes the right of the developing countries to maximum use of the provisions of the TRIPS agreement with regards to the flexibility to protect public health and generally provide access to medicines for everyone:

- Amount of compulsory licences granted
- Amount of national pharmaceutical patents
- Percentage of participation of the domestic industry in domestic sales of medications

**SDG 3b:**

- Percentage of the population with access to basic medicines and external, affordable and sustainable supplies

**SDG 3, Sub-goal 3:**
- Coverage rates for tuberculosis treatment
- Coverage rates for HIV/AIDS treatment
- Treatment rate for diabetes
- Coverage/treatment rate for hypertension

**SDG 3, sub-goal 8:**
- Percentage of under-aged children with a complete vaccination regime
<table>
<thead>
<tr>
<th>At regional level</th>
</tr>
</thead>
<tbody>
<tr>
<td>• UNASUR total expenditure allocated for accessing medicines</td>
</tr>
<tr>
<td>• Training expenditure</td>
</tr>
<tr>
<td>• UNASUR expenditure on meetings and coordination regarding access to medicines</td>
</tr>
<tr>
<td>• Number of Rulings/regional agreements in favour of accessing medicines</td>
</tr>
<tr>
<td>• Number of experts leading UNASUR proposals in multilateral spaces&lt;sup&gt;6&lt;/sup&gt;</td>
</tr>
<tr>
<td>• Number of regional meetings/events to discuss actions to improve access to medications</td>
</tr>
<tr>
<td>• Number of countries that have participated in coordination meetings on access to medications</td>
</tr>
<tr>
<td>• Proper regional implementation of policies based on agreements taken in UNASUR regarding access to medicines</td>
</tr>
<tr>
<td>• Number of regional working groups to discuss actions to improve access to medications</td>
</tr>
<tr>
<td>• Number of proposals made in favour of accessing medicines globally</td>
</tr>
<tr>
<td>• Number of experts trained in the field of access to medications</td>
</tr>
<tr>
<td>• Number of resolution projects regarding medicines approved by the Health Council or Ambassadors</td>
</tr>
<tr>
<td>• Number of projects with other agencies on access to medications for the region</td>
</tr>
<tr>
<td>• Number of common positions of UNASUR on access to medications approved in multilateral spaces</td>
</tr>
<tr>
<td>• Average rate of access to medications between member countries</td>
</tr>
</tbody>
</table>

---

<sup>6</sup> To be measured from 2010
<table>
<thead>
<tr>
<th>Medicine price bank</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Number of acts, agreements from coordination meetings on access to medications</td>
</tr>
<tr>
<td>• Number of meetings of other bodies regarding access to medicines in which UNASUR or other member states have participated.</td>
</tr>
<tr>
<td>• Number of alliances with other bodies regarding access to medicines</td>
</tr>
<tr>
<td>• Total expenditure of the project for the creation of a South American bank of prices</td>
</tr>
<tr>
<td>• Number of meetings between the countries for the review and implementation of the project</td>
</tr>
<tr>
<td>• Number of countries using the list from the medication price database</td>
</tr>
<tr>
<td>• Proper implementation of the</td>
</tr>
<tr>
<td>• Percentage of products experiencing a reduction in the disparities of prices between UNASUR member countries.</td>
</tr>
<tr>
<td>Joint purchase of medicines</td>
</tr>
<tr>
<td>-----------------------------</td>
</tr>
<tr>
<td><strong>bank of medicine prices</strong></td>
</tr>
<tr>
<td>• Amount of countries producing at least 40% of the medicines listed</td>
</tr>
<tr>
<td><strong>Joint purchase of medicines</strong></td>
</tr>
<tr>
<td>• Subscription/signing of the medicine acquisition agreement through the PAHO/WHO strategic fund</td>
</tr>
<tr>
<td>• Number of medicines negotiated between the member states of UNASUR</td>
</tr>
<tr>
<td>• Number of preparatory meetings</td>
</tr>
<tr>
<td>• Proper implementation of the joint purchase of medicines in the countries</td>
</tr>
<tr>
<td>• Number of countries subscribed</td>
</tr>
<tr>
<td>• Amount of medicines acquired through the PHO/WHO strategic fund</td>
</tr>
<tr>
<td>• Total amount of medicines acquired through the PHO/WHO strategic fund</td>
</tr>
<tr>
<td>• Percentage of population with coverage of medicines purchased under this framework due to illness</td>
</tr>
<tr>
<td>• Regional reduction in medicine acquisition price</td>
</tr>
<tr>
<td>• Reduction of the average price compared to the proper international average</td>
</tr>
</tbody>
</table>
Chapter 5: Implementation of the PRARI Toolkit

When reviewing other experiences of monitoring systems training based on indicators in other regions, we have found that the governance aspects are as important as the technical aspects of the indicators themselves (De Lombaerde et al., 2008, 2010). In this sense, it is important that a body or individual takes the lead in spreading and implementing the PRARI Toolkit. This will make its long-term sustainability easier, as well as its acceptance by the decision makers (Navarro et al., 2006).

The indicators will be relevant mainly for the regional decision makers. In addition to other entities that are interested in studying the implementation process of regional policies in South America. In order to implement this system in an effective way, mechanisms and resources will have to be established to collect data from the member countries, to store that data and analyse it in order to come to proper conclusions to support the training or motivate changes in the existing policies.

Regarding data collection, the countries have already collected some of the indicators, so there is no need to make an additional effort to collect this data. The indicator system also considers the SDGs that have been used by UNASUR, so it will contribute to providing a regional overview of the goals accomplished.

The PRARI Toolkit was formulated in order to be a flexible system that can be shaped and adjusted over time in accordance with needs and circumstances. In this way, it will be possible to take some key indicators from the PRARI Toolkit in order to create separate analyses. In addition, considering that the indicators included now in the PRARI Toolkit comprise two pilot areas to be explored, the conceptual framework can be applied to other areas of health such as health monitoring or access to universal systems, among others.
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Annex 1. Breakdown of the indicators

General health indicators

**Input:**

1. **Percentage of total current health expenditure (% of GDP)**

Numerator: The total of public and private health expenditure, x 100. This covers the provision of health services (preventive and curative), family planning, nutrition activities and emergency assistance allocated for health but does not include the provision of water and sanitation.

Denominator: National GDP

Period of measurement: Annually

Source: National health accounts, documents and reports in the public domain.

Explanation: Determining the contribution of the Government and the private sector to health expenditure in relation to the country’s output.

2. **Spending on continuing training programmes for primary and secondary healthcare**

Numerator: Budget for continuing training programmes for primary and secondary healthcare x 100

Denominator: Current expenditure budget

Period of measurement: Annually

Source: Administrative information systems, national budget plan

Explanation: Determining investment in continuous training in primary and secondary healthcare

3. **Out-of-pocket health expenditure (% of current health expenditure)**

Numerator: Out-of-pocket expenditure x 100

Denominator: Current health expenditure

Period of measurement: Annually

Source: Administrative information system, national accounts
Explanation: This indicator measures the percentage of the population at risk of impoverishment

4. **Variance percentage of expenditure on human resources in health**

SDG 3c: to substantially increase funding for health and the recruitment, development and training and retention of healthcare human resources

Numerator: Difference between the human resources health expenditure for the year/period of study and the previous year/period

Denominator: National GDP

Period of measurement: Annually

Source: National health accounts, documents and reports in the public domain

Explanation: Determining the recruitment effort in the health sector

Process:

5. **Number of training programmes for health workers (per 1000 workers)**

Numerator: Number of training programmes for health workers

Denominator: 1000 workers

Period of measurement: Annually

Source: Information systems at healthcare training centres, the Ministry of Health’s administrative information systems

Explanation: Determining the availability of training programmes in healthcare

6. **Number of continuing training healthcare programmes**

Numerator: Number of continuing training programmes in healthcare

Denominator: N/A

Period of measurement: Every two years

Source: Administrative information systems, information systems in healthcare training centres
Explanation: Determining the public effort in continuous training programmes in healthcare.

Output:

7. **Density of hospital beds**

   Numerator: No. of hospital beds (hospital beds include inpatient beds in public, private, Social Security, general and specialised hospitals and rehabilitation centres)

   Denominator: 1,000 inhabitants

   Period of measurement: Annually

   Source: Systematic administrative records from public and private hospitals

   Explanation: Determining the sustainability of the ratio of hospital beds per 1,000 people

8. **Hospital beds per 1000 inhabitants (urban and rural distribution)**

   Numerator1: No. of hospital beds in the urban area

   Numerator2: No. of hospital beds in the rural area

   Denominator: 1,000 inhabitants

   Period of measurement: Annually

   Source: Systematic administrative records from public and private hospitals

   Explanation: Hospital beds are used to indicate the availability of hospital services.

9. **Distribution of primary and secondary healthcare establishments in urban areas**

   Numerator: No. of primary and secondary care facilities

   Denominator: 10,000 inhabitants

   Period of measurement: Annually

   Source: Administrative information systems

   Explanation: Determining the availability of primary and secondary healthcare centres.
10. Distribution of primary and secondary healthcare establishments in rural areas

Numerator: No. of primary and secondary healthcare establishments in rural areas x 100

Denominator: Population of 10,000 inhabitants

Period of measurement: Annually

Source: Population census, administrative information systems

Explanation: Determining the availability of and access to healthcare

11. Distribution of health workers in urban areas

Numerator: No. of employees in the health sector in urban areas x 100

Denominator: Population of 10,000 inhabitants

Period of measurement: Annually

Source: Population census, administrative information systems

Explanation: Determining the availability of and access to health workers in urban areas

12. Distribution of health workers in rural areas

Numerator: No. of employees in the health sector in rural areas x 100

Denominator: Population of 10,000 inhabitants

Period of measurement: Annually

Source: Population census, administrative information systems

Explanation: Determining the availability of and access to health workers in rural areas

13. Number of graduate health workers

Numerator: No. of students who graduated from their studies in the same year of studies x 100

Denominator: No. of healthcare workers who entered that year of studies
Period of measurement: Annually

Source: Records from healthcare centres, university records

Explanation: Determining the proportion of graduates among all health workers

14. **Number of professionals who have completed continuous training programmes in healthcare**

Numerator: No. of professionals who have completed continuous training programmes in healthcare

Denominator: No. of health professionals

Period of measurement: Annually

Source: Training centres, administrative information systems, continuing education programmes, no. of graduates

Explanation: Determining the labour force in terms of quality of continuous training

15. **Density of health workers in rural areas**

Numerator: No. of health workers x 100

Denominator: Population of 1,000 inhabitants

Period of measurement: Annually

Source: Population census, administrative information systems

Explanation: Determining the availability of healthcare human resources in rural areas

16. **Density of health workers in urban areas**

Numerator: Total number of health workers in urban areas (active labour force) x 100

Denominator: Population of 1,000 inhabitants

Period of measurement: 1-2 years

Source: Administrative reporting system, population census, health establishments’ evaluations

Explanation: Determining the availability of healthcare human resources in urban areas.
**Outcome:**

17. Proportion of the population who have to travel for more than 1 hour to get to the primary level healthcare centre

Numerator: No. of households traveling for more than 1 hour to get to the nearest public health centre x 100

Denominator: Total number of households

Period of measurement: Annually

Source: Sanitary facilities database, geospatial modelling and analysis

Explanation: Determining physical access to health

18. Use of services

Numerator: Total number of visits to the outpatient clinics service per year

Denominator: Total population

Period of measurement: Annually

Source: Population-based surveys, systematic administrative information systems

Explanation: Determining the degree of access, availability and utilisation of outpatient clinics

19. Access to health services

Numerator: Number of facilities in the public and private sectors.

Denominator: Total population.

Period of measurement: Annually

Source: Administrative information systems, national surveys, sanitary facilities database, geospatial modelling and analysis

Explanation: Determination of geographical and social accessibility

20. SDG 3, sub-goal 8:

a. Fraction of the population protected from impoverishment due to out-of-pocket health expenditure
Numerator: Number of persons protected against impoverishment due to out-of-pocket health expenditure (where health expenditure does not prevent other expenses)

Denominator: Total population that incurs out-of-pocket health expenditure

Period of measurement: Annually

Source: Population-based health surveys, administrative information systems

Explanation: Fraction of the population protected against impoverishment resulting from direct health expenditure, made up of two types of households: families which, due to their consumption, are already below the poverty line and families that incur direct healthcare costs that plunge them even further into extreme poverty; families who, because of their direct health expenditures, are pushed into poverty.

b. Fraction of households protected against catastrophic expenses caused by out-of-pocket health expenditure

Numerator: Number of households protected against catastrophic expenses caused by out-of-pocket expenditure

Denominator: Total households that use out-of-pocket health expenditure

Period of measurement: Annually

Source: Population-based health surveys, administrative information systems

Explanation: Fraction of households protected against catastrophic expenses derived from direct health expenditure. A household with catastrophic health expenditure is defined as anyone household devoting more than 30% of its capacity to pay to the financing of the health of its members.

Impact:

21. Maternal and infant mortality rate

a. Maternal mortality rate

Numerator: No. of maternal deaths

Denominator: Live births.

Period of measurement: 1-5 years

Source: Civil records
Explanation: The annual number of deaths of women for any reason related to or aggravated by pregnancy or its management (excluding accidental or incidental causes) during pregnancy and childbirth, or within 42 days of the termination of pregnancy, irrespective of the duration and site of the pregnancy, expressed per 100,000 live births, for a specified period of time.

\[ b. \quad \text{Infant mortality rate} \]

Numerator: No. of deaths of children under one year of age
Denominator: 1,000 children less than a year old
Period of measurement: 1-5 years
Source: Civil records

Explanation: Determining the probability of dying during the first year of life in the living conditions during that year.

**22. Mortality rate due to chronic diseases**

Numerator: No. of deaths of people suffering from a chronic disease
Denominator: No. of years of exposure to the risk of death
Period of measurement: 1-5 years
Source: Civil records, health centre records

Explanation: Determining the probability of a person dying of a chronic disease

**23. Mortality rate from infectious diseases**

Numerator: No. of deaths of persons suffering from an infectious disease
Denominator: No. of years of exposure to the risk of death
Period of measurement: 1-5 years
Source: Civil records, health centre records

Explanation: Determining the probability that a person dies of an infectious disease

**24. GINI index\(^7\)**

Numerator: the area between the Lorenz distribution curve and the (perfect)

\(^7\) Possibly disaggregated by urban and rural population
uniform distribution line

Denominator: the area under the uniform distribution line

Period of measurement: Annually

Source: Administrative information systems, population-based surveys

Explanation: Determining how much income distribution deviates from the perfect uniform distribution.

25. **SDG 3: Life expectancy at birth**

Method: The life table method

Period of measurement: Annually

Source: Civil records

Explanation: The average number of years that a newborn child can expect to live if he or she were to go through life exposed to mortality rates by gender and age prevailing at the time of his or her birth, for a specific year, in a given country, territory, or geographic area.

**Primary health care: national level**

**Input:**

26. **Existence of human resources policies in PHC**

YES/NO

Period of measurement: Annually

Source: Administrative and legislative information system

Explanation: Determining the political effort in PHC resources in terms of human resources

27. **Existence of adequate distribution of human resources policies in PHC YES/NO**

Answer: YES/NO

Period of measurement: Annually

Source: Administrative and legislative information system
Explanation: Determining the political effort for a proper distribution of human resources in PHC

28. Spending on PHC infrastructure and human resources
Numerator: Budget exercised in PHC infrastructure and human resources x 100
Denominator: Current expenditure budget
Period of measurement: Annually
Source: Administrative information systems, national budget plan
Explanation: Determining the level of investment in PHC infrastructure and human resources

29. Percentage of the budget allocated to PHC
Numerator: Budget allocated to PHC x 100
Denominator: General public budget
Period of measurement: Annually
Source: Administrative information systems, national budget plan
Explanation: Determining the investment for PHC systems

30. Expenditure on continuing PHC training
Numerator: Budget for continuing PHC training programmes x 100
Denominator: Current expenditure budget
Period of measurement: Annually
Source: Administrative information systems, national budget plan
Explanation: Determining investment in continuous healthcare training

31. Percentage of total current health expenditure (% of GDP) intended for PHC
Numerator: Budget for PHC x 100
Denominator: Budget for total current health expenditure
Period of measurement: Annually
Source: Administrative information systems, national budget plan
Explanation: Determining investment in PHC systems
32. Percentage of PHC budget for health promotion

Numerator: PHC budget for health promotion x 100
Denominator: PHC budget
Period of measurement: Annually
Source: Administrative information systems, national budget plan
Explanation: Determining PHC investment for the promotion of health

Process:

33. Proper implementation\(^8\) of policies for the promotion of human resources in PHC

Numerator: Reports or evaluations of the financial needs arising from the implementation of the policy.
Breakdown: No. of policy documents relating to the promotion of human resource in PHC, no. of workplaces that have specialists and committees charged with the promotion of human resources in PHC, no. of reports or evaluations on the financial needs arising from the implementation of the policy, number of reports submitted and considered by the senior management on the effects of monitoring and evaluation of the policy for the promotion of human resources in PHC.
Denominator: N/A
Period of measurement: Annually
Source: Administrative information systems, national programmes, national health accounts
Explanation: Determining the effectiveness of policies for the promotion of human resources in PHC in terms of implementation.

34. Proper implementation\(^9\) of policies for the proper distribution of human resources in PHC

Numerator: No. of policies for the proper distribution of human resources in PHC that have been implemented by means of specific programmes
Denominator: No. of overall policies for the proper distribution of human resources in PHC

\(^8\) To be defined by UNASUR
\(^9\) To be defined by UNASUR
Period of measurement: Annually
Source: Administrative information systems, national programmes, national health accounts

Explanation: Determining the distribution of human resources in PHC in terms of policy implementation. Health workers are often concentrated in urban areas, while rural and remote environments lack basic healthcare.

35. Number of PHC training institutions

Numerator: No. of PHC training institutions
Denominator: Total no. of institutions

Period of measurement: Annually
Source: Administrative information systems, health department licenses

Explanation: Determining the labour force in terms of number of PHC training institutions

36. Number of continuing training PHC programmes

Numerator: No. of PHC training programmes
Denominator: Total no. of programmes

Period of measurement: Every two years
Source: Administrative information systems, information systems in healthcare training centres

37. Number of health promotion programmes

Numerator: No. of health promotion programmes
Denominator: Total no. of healthcare programmes

Period of measurement: Annually
Source: National and local administrative information systems, information systems at healthcare centres

Explanation: Investment in health promotion and awareness-raising

Output:
38. **Density of PHC health workers**

Numerator: Total no. in the active PHC workforce x 100

Denominator: Population of 1,000 inhabitants

Period of measurement: Annually

Source: Population census, administrative information systems

Explanation: Determining the availability of PHC human resources

39. **Density of PHC staff in rural areas (per 1000 inhabitants)**

Numerator: Total number of PHC staff in rural areas (active labour force) x 100

Denominator: Population of 1000

Period of measurement: 1-2 years

Source: Administrative reporting system, population census, health establishments’ evaluations

Explanation: Determining the availability of PHC staff in rural areas.

40. **Density of primary healthcare units**

Numerator: No. of primary care units

Denominator: 10,000 inhabitants

Period of measurement: Annually

Source: Administrative information systems, population census, evaluations of health facilities

Explanation: Determining access to family healthcare units

41. **Number of primary care units**

Numerator: No. of primary care units

Denominator: N/A

Period of measurement: Annually
Source: Administrative information systems, population census, evaluations of health facilities

Explanation: Determining the availability and existence of USF

42. Number of PHC graduates
Numerator: No. of PHC graduates
Denominator: N/A
Period of measurement: Annually
Source: Records from training centres and universities
Explanation: Determining the PHC labour force/Determining the social determinants

43. Distribution of PHC workers
Numerator: No. of PHC workers by region/province x 100
Denominator: Population of 10,000 people
Period of measurement: Annually
Source: Population census, administrative information systems
Explanation: Determining the availability of and access to PHC staff

44. Number of professionals that have completed continuous training programmes in PHC
Numerator: No. of professionals who have completed PHC training programmes
Denominator: No. of PHC professionals
Period of measurement: Annually
Source: Training centres, administrative information systems, continuing education programmes, no. of graduates
Explanation: Determining the labour force in terms of quality of continuous training

45. Percentage of children under age 5 who receive accompaniment (healthy children control, growth control)
Numerator: No. of children under 5 years receiving accompaniment (healthy children control, growth control) x 100

Denominator: Total children under 5 years’ old

Period of measurement: 1-5 years

Source: Administrative reporting system, evaluations of health facilities

Explanation: Determining the accompaniment of healthy children

46. Coverage of adult patients with diabetes/hypertension

Numerator: Number of people with diabetes/hypertension receiving public services

Denominator: Total number of people with diabetes/hypertension with a need for services

Period of measurement: Every 2 years

Source: Centre reporting system, household survey

Explanation: Percentage of people with diabetes/hypertension who use public services

47. Number of brochures, advertisements or other distributed media to promote healthy lifestyles

Numerator: No. of pamphlets distributed

Denominator: N/A

Period of measurement: Annually

Source: Reporting centres, local and national administrative information systems, health centre information systems

Explanation: Determining the effort in the promotion of healthy lifestyles

48. Coverage for the promotion of the health of people of all ages

Numerator: No. of consultations after a health promotion campaign

Denominator: No. of consultations a year before a health promotion campaign

Period of measurement: Annually

Source: Administrative information systems at health centres
Explanation: Measuring the effectiveness of actions of public promotion for all ages, assessing health promotion

49. **SDG 3, Sub-meta 8: Percentage of births attended by skilled health workers**

Numerator: No. of births attended by qualified health workers (doctors, nurses or midwives) trained in obstetrical care

Denominator: The total number of live births in the same period

Period of measurement: Every 2 years

Source: Survey of households, centre reporting systems

Explanation: Percentage of births attended by health workers during a specified period of time

Outcome:

50. **Percentage of homes whose members have to travel more than 1 hour to get to the nearest primary healthcare centre**

Numerator: No. of households traveling for more than 1 hour to get to the nearest PHC healthcare centre x 100

Denominator: Total number of households

Period of measurement: Annually

Source: Sanitary facilities database, geospatial modelling and analysis

Explanation: Determining physical access to health

51. **Percentage of first level PHC consultations**

Numerator: No. of first level PHC consultations x 100

Denominator: Total no. of consultations

Period of measurement: Annually

Source: Health centre reporting systems, administrative information system, evaluations of health centres, population-based health surveys

Explanation: Determining demand for PHC consultations
52. Immunisation coverage for each vaccine in the national schedule

Numerator: The number of individuals in the target group for each vaccine given the last dose recommended in the series. For vaccines in the infant immunisation schedule, this would be the number of children aged 12-23 months who have received vaccines specified for before their first birthday.

Denominator: The total number of individuals in the target group for each vaccine. For vaccines in the infant immunization schedule, this would be the total number of infants.

Period of measurement: Annually

Source: Centre reporting system, household survey

Explanation: Percentage of the desired population that has received the final recommended dose for each vaccine recommended in the national schedule of vaccines. This should include all vaccines within a country’s routine immunisation schedule.

53. Percentage of diabetics in the Hbc<6 control programme

Numerator: No. of diabetics in the Hbc<6 control programme x 100
Denominator: Total no. of diabetics

Period of measurement: Annually

Source: Population-based health surveys, health centre information systems, evaluation of health centres

Explanation: Determining the proportion of diabetics with low Hcb that are in a control program

54. Percentage of patients with hypertension in the diastolic <90 control programme

Numerator: No. of patients with hypertension in the diastolic <90 control programme x 100
Denominator: Total no. of patients with hypertension

Period of measurement: Annually

Source: Population-based health surveys, health centre information systems, evaluation of health centres

Explanation: Determining the percentage of assistance for people suffering from hypertension
55. SDG 3, Sub-meta 8

a. Coverage of antenatal care (+ 4 visits)

Numerator: Total no. of women who attended a NPC at least once x 100

Denominator: Total no. of births

Period of measurement: Every five years

Source: National survey of demography and health-ENDS, civil records

Explanation: Determining the proportion of pregnant women seen at least four times during pregnancy by skilled health workers for reasons related to the pregnancy.

b. Immunisation coverage (full or DTP3)

Numerator: No. of persons covered by the immunization

Denominator: Total population

Period of measurement: Annually

Source: National administrative information systems, health centre information systems, population census,

Explanation: Determining the immunization coverage to make it affordable

Impact:

56. Percentage of households with affordable primary healthcare coverage

Numerator: No. of households with PHC coverage x 100

Denominator: Total no. of households.

Period of measurement: Annually

Source: Population census, administrative information system, health centre information systems

Explanation: Determining the affordability and coverage of PHC

57. Prevalence of anaemia in children aged 6-59 months

Numerator: Number of children aged 6-59 months with a level of haemoglobin below 110 g/L, adjusted for altitude.
Denominator: Total number of children aged 6-59 months who had levels of haemoglobin obtained during the survey.

Period of measurement: Every 3-5 years

Source: Population-based health surveys

Explanation: Determining the nutritional status of the population

58. Percentage of children under 5 who are malnourished (moderate and severe)

Numerator: Number of children aged 0-59 months with malnutrition, x 100

Denominator: Total number of children aged 0-59 months.

Period of measurement: Every 3-5 years

Source: National nutrition surveys

Explanation: Measurement of nutrition and risk

Primary health care: regional level

Input:

59. Expenditure of UNASUR in responding to the PHC strategy for training

Numerator: UNASUR expenditure on training for the PHC strategy

Denominator: Total expenditure of UNASUR

Period of measurement: Annually

Source: Budgets and reports from UNASUR and ISAGS

Explanation: Determining the regional effort for PHC training and response to the PHC strategy

60. Expenditure in respect of PHC coordination and meetings

Numerator: UNASUR expenditure on meetings and coordination for the PHS strategy

Denominator: Total expenditure of UNASUR

Period of measurement: Annually
Source: Budgets and reports from UNASUR and ISAGS

Explanation: Determining the regional effort to achieve the objectives of the PHC strategy

**61. Number of resolutions/regional agreements to respond to PHC access**

Numerator: No. of resolutions/regional agreements in relation to access to PHC

Denominator: N/A

Period of measurement: Annually

Source: Administrative information systems of UNASUR and ISAGS

Explanation: Determining the regional political effort in the response of the PHC strategy

**62. Total expenditure of UNASUR in PHC**

Numerator: Total expenditure of UNASUR in PHC x 100

Denominator: Total health expenditure of UNASUR

Period of measurement: Annually

Source: Administrative information systems of UNASUR and ISAGS

Explanation: Determining regional investment in PHC. Promoting critical reflection and raising awareness of the importance of the economic dimension as a crucial component in decision-making related to the adoption of new health technologies.

**Process:**

**63. Number of training sessions to train PHC experts**

Numerator: No. of training sessions to train PHC experts

Denominator: N/A

Period of measurement: Annually

Source: Administrative information system of UNASUR and ISAGS

Explanation: Determining regional investment in strategic staff training.
64. **Number of experts leading UNASUR proposals in multilateral spaces**

Numerator: No. of experts leading UNASUR proposals in multilateral spaces

Denominator: N/A

Period of measurement: Annually

Source: Administrative information system of UNASUR and ISAGS, multilateral space meetings information system (CELAC, WHO, OAS, etc.)

Explanation: Determining the representation of UNASUR proposals in multilateral spaces

65. **Number of regional meetings/events to discuss actions to improve the PHC strategy**

Numerator: No. of meetings and regional events funded/organised by UNASUR in relation to the PHC strategy

Denominator: N/A

Period of measurement: Annually

Source: Administrative information system of UNASUR and ISAGS, national administrative information systems

Explanation: Determining the effort of coordinating the regional response to improving the PHC strategy. Dissemination of knowledge on good practices of the countries, reinforcing block health policies and increasing the number of bilateral cooperations between the countries. Establishing the commitment of member states to strengthen policies on access to medicines.

66. **Number of countries participating in coordination meetings on access to PHC**

Numerator: No. of countries participating in coordination meetings on access to PHC

Denominator: Total no. of UNASUR member countries

Period of measurement: Annually

Source: Administrative information system and reports of UNASUR and ISAGS

Explanation: Determining the level of commitment from the countries for regional PHC coordination.
67. **Proper implementation**\(^\text{10}\) of PHC policies from UNASUR agreements

Numerator: No. of countries that have implemented policies adequately from UNASUR agreements on PHC (documents and programmes, budgets for certain PHC, based on UNASUR agreements.

Denominator: Total number of UNASUR member countries

Period of measurement: Annually

Source: Administrative information system of UNASUR and ISAGS, NGO information system. Ministry of health information system and national administrative information system

Explanation: Determining the influence of the agreements made at UNASUR for PHC policies

68. **Number of regional working groups to discuss actions to improve access to PHC**

Numerator: No. of regional working groups funded/organised by UNASUR that discussed actions to improve access to PHC

Denominator: N/A

Period of measurement: Annually

Source: Administrative information system of UNASUR and ISAGS, national administrative information systems

Explanation: Determining the effort of coordinating the regional response to improving the PHC strategy. Dissemination of knowledge on good practices of the countries, reinforcing block health policies and increasing the number of bilateral cooperations between the countries. Establishing the commitment of Member Countries to strengthen policies on access to medicines.

69. **Number of acts, agreements from coordination meetings on access to PHC**

Numerator: No. of acts and agreements from coordination meetings funded/organised by UNASUR on access to PHC

Denominator: N/A

Period of measurement: Annually

Source: UNASUR and ISAGS reports and administrative information system

\(^\text{10}\) To be defined by UNASUR
Explanation: Determining the intensity of agreement production for PHC at regional level

70. Number of meetings with other regional bodies on the issue of access to PHC

Numerator: No. of meetings with other regional bodies, such as OAS, Mercosur, and CAN, on access to PHC

Denominator: N/A

Period of measurement: Annually

Source: Administrative information system of UNASUR, ISAGS, Mercosur, Alba, Andean Community, OEA, CELAC; National administrative information systems

Explanation: Determining the regional inter-organisational effort.

71. Number of projects with other regional bodies on the issue of access to PHC

Numerator: No. of projects with other agencies, such as OAS, Mercosur, CAN, PAHO, CRIES, on the issue of PHC

Denominator: Total number of projects on access to PHC

Period of measurement: Annually

Source: Administrative information system of UNASUR and ISAGS, information system of other organisations at global, regional, national and local level.

Explanation: Determining the level of coordination and integration between organisations at different levels on PHC

Output:

72. Number of proposals made to respond to the access to PHC at global level

Numerator: No. of proposals made to respond to the access to PHC at global level

Denominator: N/A

Period of measurement: Annually

Source: Administrative information system of UNASUR and ISAGS, WHO administrative information system

Explanation: Determining the effort of UNASUR in formulating proposals at global level
73. Number of trained experts that replicate the learning

Numerator: No. of experts trained and funded/organised by UNASUR that replicate PHC learning

Denominator: N/A

Period of measurement: Annually

Source: Administrative information system of UNASUR and ISAGS and the PHC courses from these organisations.

Explanation: Determining the renewal of PHC experts

74. Number of experts trained in the implementation of PHC

Numerator: No. of experts trained and funded/organised by UNASUR for the implementation of PHC

Denominator: N/A

Period of measurement: Annually

Source: Administrative information system of UNASUR and ISAGS

Explanation: Determining the workforce trained in PHC

75. Number of countries with the highest rate of distribution of PHC services

Numerator: No. of countries with the highest rate of distribution of PHC services

Denominator: Total no. of UNASUR member countries

Period of measurement: Annually

Source: Administrative information system of ISAGS, evaluations in the health sectors at national level

Explanation: Determining the countries with the highest rate of distribution of PHC services for detecting good practices

76. Number of countries with improved PHC strategies

Numerator: No. of countries with improved PHC strategies

Denominator: N/A
77. **Number of partnerships with other agencies on issues of access to PHC**

Numerator: No. of partnerships with other agencies on issues of access to PHC

Denominator: N/A

Period of measurement: Annually

Source: Administrative information system and reports from UNASUR and ISAGS, WHO information system, at national level, NGOs in PHC, etc.

Explanation: Determining the coordination effort among the agencies working in PHC

**Outcome:**

78. **Number of common positions on PHC from UNASUR in multilateral spaces**

Numerator: No. of common positions on PHC from UNASUR in multilateral spaces

Denominator: N/A

Period of measurement: Annually

Source: Information systems of UNASUR, ISAGS and multilateral spaces (WHO, PAHO, etc.)

Explanation: Determining the influence of the UNASUR proposal on the issue of PHS at multilateral level

79. **Average rate of access to PHC among member states**

Numerator: Total of national estimates of access to PHC

Denominator: No. of UNASUR member states (12)

Period of measurement: 1-5 years

Source: Information systems of ISAGS, national administrations, population-based surveys
Explanation: Determining the regional average for access to PHC

**Access to medicines: national level**

**Input:**

80. **Public investment in pharmaceutical education**

Numerator: Amount of public investment - spending power and capital of the budgets of the Government, foreign loans and grants (including contributions from international agencies and non-governmental organisations) – in pharmaceutical education in public institutions

Denominator: Amount of public investment in education

Period of measurement: Annually

Source: National information systems, accounts pharmaceutical training centres and universities

Explanation: Determining the public effort in pharmaceutical education

81. **Existence of human resources policies for pharmaceutical resources**

Answer: YES/NO

Period of measurement: Annually

Source: Administrative and legislative information system

Explanation: Determining the political effort in terms of human resources in pharmaceutical resources

82. **Existence of appropriate distribution policies of human resources in pharmaceutical resources**

Answer: YES/NO

Period of measurement: Annually

Source: Administrative and legislative information system

Explanation: Determining the political effort for proper distribution of human resources on access to medicines

83. **Existence of promotion rules for the use of generics**

Answer: YES/NO
Period of measurement: Annually

Source: Administrative and legislative information system

Explanation: Determining the political effort in promoting use of generics

84. Existence of national production promotion rules

Answer: YES/NO

Period of measurement: Annually

Source: Administrative and legislative information system

Explanation: Determining the political effort in the promotion of national production

85. Existence of a list of medications that are guaranteed by the Government:

Answer: YES/NO

Period of measurement: Annual

Source: Administrative information system

Explanation: Determining the extent of drug coverage

86. Is financing in the public system complete?

Answer: YES/NO

Period of measurement: Annually

Source: Budgets and administrative information system

Explanation: Determining the level of funding of the public system of medicines

87. Is financing in the private system complete?

Answer: YES/NO

Period of measurement: Annually

Source: Budgets and administrative information system

Explanation: Determining the level of funding of the public system of medicines
88. Current expenditure for imports of medicines in relation to total imports

Numerator: Current expenditure for imports of medicines
Denominator: Current expenditure in total imports
Period of measurement: Annually
Source: National accounts
Explanation: Determining dependence on pharmaceutical trade and spending on medicines imported in relation to other imports to see if the purchase cost is high.

89. Are the regional regulations (UNASUR/MERCOSUR) regarding joint purchases applied in the country?
Answer: YES/NO
Period of measurement: Annually
Source: National accounts, ISAGS information system
Explanation: Determining the scope of the regional law on joint purchases

Process:

90. Number of public and private pharmaceutical education institutions

Numerator: No. of public and private pharmaceutical education institutions
Denominator: N/A
Period of measurement: Annually
Source: Administrative information system
Explanation: Determining the possibilities of pharmaceutical education

91. Proper implementation\textsuperscript{11} of the policies for the promotion of total pharmaceutical human resources

Numerator: No. of policies adequately implemented for the promotion of total pharmaceutical human resources through specific programmes
Denominator: Total no. of policies implemented for the promotion of human resources

\textsuperscript{11} To be defined by UNASUR
Breakdown: Number and type of policy documents relating to promotion of pharmaceutical human resources, number of workplaces that have specialists and committees charged with the promotion of total pharmaceutical human resources, number of reports or evaluations on financial needs arising from the implementation of the policy, number of reports submitted and considered by the senior management for the purpose of the monitoring and evaluation of the policy to promote pharmaceutical human resources.

Period of measurement: Annually

Source: Administrative information systems, national programmes, national health accounts

Explanation: Determining the effectiveness of policies for the promotion of pharmaceutical human resources in terms of proper implementation.

92. Proper implementation\textsuperscript{12} of policies for the proper distribution of total pharmaceutical human resources

Numerator: No. of policies adequately implemented for the distribution of total pharmaceutical human resources through specific programmes

Denominator: Total no. of policies proposed for the distribution of human resources

Period of measurement: Annually

Source: Administrative information systems, national programmes, national health accounts

Explanation: Determining the distribution of pharmaceutical human resources in terms of policy implementation. Health workers are often concentrated in urban areas, while rural and remote environments lack basic healthcare.

93. Proper implementation\textsuperscript{13} of promotion rules for the use of generics

Numerator: No. of documents, evaluations, meetings, etc.

Denominator: N/A

Period of measurement: Annually

Source: Administrative information systems, national programmes, national health accounts

Explanation: Determining the implementation of promotion rules for the use of generic standards.

94. Existence of a public-private alliance to development different products

Answer: YES/NO

Period of measurement: Annually

Source: Administrative information systems, national programmes, programmes of

\textsuperscript{12} To be defined by UNASUR

\textsuperscript{13} To be defined by UNASUR
private institutions
Explanation: Determining the cooperation between the public sector and the private sector, exchange of good practices, exchange of projects and financing.

95. *Existence of periodic updating: is the list of specialised medications updated periodically?*

Numerator: No. of times a year the drug list is updated
Denominator: N/A
Period of measurement: Annually
Source: Administrative information systems, Ministry of health
Explanation: Determining the updating of the list of drugs in relation to

96. *Proper implementation*\(^{14}\) of policies from agreements made by UNASUR on access to medicines

Numerator: No. of countries that have implemented policies adequately from UNASUR agreements on access to medicines (documents and programmes, budgets for access to medicines, based on agreements with UNASUR)
Denominator: Total no. of member countries
Period of measurement: Annually
Source: Administrative information systems, national programmes, national health accounts
Explanation: Determining the impact and scope of UNASUR at national level in relation to the implementation of agreements made by UNASUR.

**Output:**

97. *Distribution of graduate pharmaceutical workers in the country (urban and rural areas)*

Numerator1: Total no. of graduate pharmaceutical workers working in urban areas
Numerator2: Total no. of graduate pharmaceutical workers working in rural areas
Denominator: Total no. of graduate pharmaceutical personnel
Period of measurement: Annually
Source: Records from universities, training centres, information systems and evaluations of health centres
Explanation: Determining the resumption of the pharmaceutical workforce

\(^{14}\) To be defined by UNASUR
98. **Density of pharmacists**

Numerator: Total number of active pharmaceutical workers \( \times 100 \)
Denominator: Population of 1000 inhabitants
Period of measurement: Annually
Source: Administrative reporting system, population census, health establishments’ evaluations
Explanation: Determining the availability of pharmacists.

99. **Total number of pharmacists in the country**

Numerator: Total number of pharmacists
Denominator: N/A
Period of measurement: Annually
Source: Administrative reporting system, population census, evaluations of health facilities
Explanation: Determining the actual level of pharmaceutical human resources

100. **Density of pharmaceutical workers in rural areas \( \times 1000 \) inhabitants**

Numerator: Total number of pharmacists in rural areas (active labour force) \( \times 100 \)
Denominator: Population of 1000
Period of measurement: Annually
Source: Administrative reporting system, population census, health establishments’ evaluations
Explanation: Determining the availability of pharmaceutical workers in rural areas.

101. **Percentage of national medication production**

Numerator: No. of medications produced in the national territory \( \times 100 \)
Denominator: No. of medications imported and produced in the national territory
Period of measurement: Annually
Source: National accounts and data from pharmaceutical industries
Explanation: Determining the national production of medications to assess dependence of the market, prices of medicines, weight of the national pharmaceutical industry

102. **Existence of good practices for the manufacture of medicines**

Answer: YES/NO

Period of measurement: Annually

Source: National legal system, national system regulating the national pharmaceutical industry

Explanation: Determining the existence of good practices in the manufacture of medications

103. **Existence of pharmacovigilance practices**

Answer: YES/NO

Period of measurement: Annually

Source: National legal system, national system regulating the national pharmaceutical industry

Explanation: Determining the existence of pharmacovigilance practices

104. **Percentage of medications produced in the country**

Numerator: No. of medications produced in the country x 100

Denominator: No. of imported medications

Period of measurement: Annually

Source: Administrative reporting system

Explanation: Determining the strength of the medications market at national level and the level of independence.

105. **How many joint purchases of medications took place with other countries?**

Numerator: Import value derived from joint purchases of medications with other countries

Denominator: Total value of imported medications

Period of measurement: Annually
Source: National accounts, regional and local administrative information systems, health centre administration systems

Explanation: Determining the proportion of cooperation for the import of medications

Outcome:

106. Annual variation of the (retail) market price index

Numerator: Market price index for the year preceding the year studied – market price index for the year studied x 100

Denominator: Price index for the previous year

Period of measurement: Annually

Source: Economic information systems, administration information systems

Explanation: Determining the rate of inflation

107. Amount of medicines out of stock in health establishments

Numerator: No. of health facilities that had a shortage of at least one medication from the national list of essential drugs in the past 12 months

Denominator: Total no. of medications on the essential drug list

Period of measurement: Annually

Source: Inventories from health centres, standard information systems

Explanation: Determining if medications and essential products are available in health facilities

108. Free coverage of HIV/AIDS medicines

Numerator: No. of countries with free coverage of HIV/AIDS medicines.

Denominator: Total no. of countries

Period of measurement: 1-5 years

Source: National administrative information system, Ministry of health

Explanation: Determining public policies in terms of coverage of HIV/AIDS medications
109. **Free basic and essential medication coverage**

Numerator: No. of countries with free basic and essential medication coverage according to the national essential medications list

Denominator: Total no. of countries

Period of measurement: 1-5 years

Source: National administrative information system, Ministry of health

Explanation: Determining public policies in the field of basic and essential medication coverage

110. **Relationship between domestic and international prices**

Numerator: Average price of specific national medications for a health area

Denominator: Average price of specific international medications for a health area

Period of measurement: Annually

Source: Administrative reporting system, prices database, national and international pharmaceutical companies

Explanation: Determining the difference between domestic and international prices to see if domestic prices are comparable to the international average.

111. **Percentage of import of medications**

Numerator: Import of medications x 100

Denominator: Drug consumption

Period of measurement: Annually

Source: National accounts

Explanation: Determining the national demand for medications produced in other countries.

112. **Percentage of export of medications**

Numerator: Export value of medications x 100

Denominator: Total value of exports

Period of measurement: Annually
Source: National accounts

Explanation: The value of the medications exported, including goods, transport, freight, insurance, royalties, license fees and other services.

113. SDG 3, sub-meta 8: universal health coverage including protection against financial risks, access to essential services and quality of health and access to safe, effective and affordable medications and vaccines for all

a. Percentage of people with health coverage including medications and vaccines

Numerator: No. of people with health coverage, including medications and vaccines x 100

Denominator: Total population

Period of measurement: 1-5 years

Source: Data from health facilities, population-based surveys

Explanation: Determining the progress towards 100% universal health coverage

b. Existence of subsidies for medications for low-income people

Numerator: No. of countries that have policies of subsidies for medications for low-income people

Denominator: Total no. of countries

Period of measurement: 1-5 years

Source: Health establishment data, Ministry of health

Explanation: Determining the progress towards 100% universal health coverage

114. SDG 3b: Research and production of vaccines and medicines and the supply of basic vaccines, in accordance with the Doha Declaration which establishes the right of the developing countries to make maximum use of the provisions of the TRIPS Agreement, the relationship to flexibility to protect public health and in general provide access to medications for all

a. Amount of compulsory licences granted

Numerator: No. of compulsory licences granted

Denominator: N/A

Period of measurement: Annually
Source: National legislative and administrative system
Explanation: Determining the scope of TRIPS flexibilities

b. **Amount of national pharmaceutical patents**

Numerator: No. of national pharmaceutical patents
Denominator: N/A
Period of measurement: Annually
Source: National patent administrative system
Explanation: Determining the level of national pharmaceutical patents

c. **Percentage of participation of the domestic industry in domestic sales of medications**

Numerator: No. of national industries participating in domestic sales of medications x 100
Denominator: Total no. of industries participating in domestic sales of medications
Period of measurement: 1-2 years
Source: Domestic sales of medications information system
Explanation: Determining the representation of national pharmaceutical industries in proportion to international representation

115. **SDG 3b: percentage of the population with access to basic medicines and out-of-pocket and sustainable supplies**

Numerator: Population breakdown (physical, social and financial) with access to affordable essential medications on a sustainable basis
Denominator: Total population breakdown by country/territory
Period of measurement: 1-5 years
Source: National health surveys
Explanation: Determining accessibility to essential medications

116. **SDG 3, Sub-meta 8**

a. **Tuberculosis treatment/coverage ratios**
b. **HIV/AIDS treatment/coverage ratios**
c. Diabetes treatment/coverage ratios
d. Hypertension treatment/coverage ratios

Numerator 1: No. of persons receiving treatment for Tuberculosis, HIV/AIDS, diabetes, hypertension

Numerator 2: No. of persons receiving care for Tuberculosis, HIV/AIDS, diabetes, hypertension

Denominator: No. of people affected by Tuberculosis, HIV/AIDS, diabetes, hypertension

Period of measurement: Annually

Source: Health centre information systems, administrative information systems, Health centre surveys

Explanation: Determining access to treatments and coverage for Tuberculosis, HIV/AIDS, diabetes, hypertension

117. SDG 3, sub-meta 8: percentage of minors with a full vaccination scheme

Numerator: No. of minors with a full vaccination scheme x 100

Denominator: Total no. of minors in the country/territory

Period of measurement: 1-5 years

Source: Population-based health surveys, routine information systems

Explanation: Determining the percentage of minors who have a full vaccination scheme

Access to medicines: regional level

Input:

118. Total UNASUR expenditure allocated for access to medicines

Numerator: Total UNASUR expenditure to respond to access to medications in terms of: meetings, workshops, documents and logistics, among others, x 100

Denominator: Total health expenditure of UNASUR

Period of measurement: Annually

Source: Budget for formation system of UNASUR and ISAGS

Explanation: Determining the effort of UNASUR concerning access to
medications

119. **Expenditure of UNASUR for training**

Numerator: Total expenditure of UNASUR for training experts x 100  
Denominator: Total health expenditure of UNASUR  
Period of measurement: Annually  
Source: Budget for formation system of UNASUR and ISAGS  
Explanation: Determining the financing and training effort to improve access to medications

120. **UNASUR expenditure in respect of meetings and coordination on access to medications**

Numerator: UNASUR expenditure in respect of meetings and coordination on access to medications  
Denominator: Total health expenditure of UNASUR  
Period of measurement: Annually  
Source: Budget for formation system of UNASUR and ISAGS  
Explanation: Determining financing efforts at the level of UNASUR to improve access to medications

121. **Number of regional resolutions/agreements to respond to access to medications**

Numerator: No. of regional resolutions/agreements funded/organised by UNASUR concerning access to medications  
Denominator: N/A  
Period of measurement: Annually  
Source: Information reporting system of UNASUR and ISAGS, press releases  
Explanation: Determining the political activity of UNASUR concerning access to medications, determining the activity of other regional bodies on the issue of access to medications

122. **Database of prices of medications: total cost of the project for the creation of a South American price database**

Numerator: Total cost of the project for the creation of a South American price databases [meetings, logistics, personnel, training]  
Denominator: Total health expenditure of UNASUR
Period of measurement: Annually
Source: Budget for formation system of UNASUR and ISAGS
Explanation: Determining financing efforts for the price database project

123. Joint purchase of medicines: subscription/signing of agreement for acquisition of medicines through the strategic PAHO/WHO fund

Numerator: No. of national subscriptions for the acquisition of medications purchased jointly (through the strategic PAHO/WHO fund)
Denominator: Total no. of member countries
Period of measurement: Annually
Source: Information system of the strategic PAHO, WHO fund, ISAGS, UNASUR
Explanation: Determining the evolution of subscriptions to the strategic fund for joint purchases of medications at regional level

Process:

124. Number of experts leading UNASUR proposals in multilateral spaces

Numerator: No. of experts on access to medications leading proposals from UNASUR in multilateral spaces
Denominator: Total no. of experts on access to medications
Period of measurement: Annually
Source: ISAGS/UNASUR information system and planning of multilateral space events (OPS, WHO, etc.)
Explanation: Determining the effort and reach of UNASUR in multilateral spaces

125. Number of regional meetings/events to discuss actions to improve access to medications.

Numerator: No. of meetings/regional events funded/organised by UNASUR to discuss actions to improve access to medications
Denominator: N/A
Period of measurement: Annually
Source: Reporting systems of UNASUR, ISAGS, Mercosur, Andean Community, OAS and other regional bodies
Explanation: Determining the level of coordination efforts at regional level to improve access to medications
126. **Number of countries that have participated in coordination meetings on access to medications**

Numerator: No. of countries that have participated in coordination meetings funded/organised by UNASUR on access to medications

Denominator: Total no. of countries

Period of measurement: Annually

Source: Information reporting system of UNASUR and ISAGS

Explanation: Determining the level of engagement of member countries in improving access to drugs at the level of UNASUR

127. **Appropriate regional implementation\(^{15}\) of policies based on agreements made by UNASUR on access to medications**

Numerator: No. of countries that have implemented policies based on UNASUR agreements on access to medications (documents and programmes, budgets for access to medications, based on agreements with UNASUR)

Denominator: Total no. of UNASUR countries

Period of measurement: Annually

Source: Administrative information system of UNASUR and ISAGS, NGO information system

Explanation: Determining the influence and scope of the agreements made by UNASUR on policies for access to medications

128. **Number of regional working groups to discuss actions to improve access to medications**

Numerator: No. of regional working groups funded/organised by UNASUR on the issue of access to medications

Denominator: N/A

Period of measurement: Annually

Source: Information reporting system of UNASUR and ISAGS

Explanation: Determining the regional consultation of working groups to improve access to medications

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\(^{15}\)To be defined by UNASUR
129. **Number of acts, agreements from coordination meetings on access to medications**

Numerator: No. of acts and agreements from coordination meetings financed and organised by UNASUR

Denominator: N/A

Period of measurement: Annually

Source: Information reporting system of UNASUR and ISAGS

Explanation: Determining the region’s political effort on the issue of access to medications

130. **Number of meetings of other regional bodies on access to medications in which UNASUR or other member countries participated.**

Numerator: No. of meetings of other bodies on the issue of access to medications in which UNASUR or other member countries participated.

Denominator: N/A

Period of measurement: Annually

Source: Information reporting system of UNASUR and ISAGS, information system of the ministries of health, information system of participants in events held by regional bodies, information system of participants in events held by multilateral bodies

Explanation: Determining the involvement of UNASUR and its member countries in meetings organised by third parties

131. **Number of partnerships with other regional agencies on issues of access to medications**

Numerator: No. of partnerships with other regional bodies on the issue of access to medications

Denominator: N/A

Period of measurement: Annually

Source: Information system of UNASUR, ISAGS and other agencies: PAHO, WHO, NGOs

Explanation: Determining the cooperative effort of various agencies to improve access to medications
132. Medication price database: Number of meetings between the countries for the review and implementation of the project

Numerator: No. of meetings among member countries for the review and implementation of the medication price database project
Denominator: N/A
Period of measurement: Annually
Source: Information event system of UNASUR and ISAGS
Explanation: Determining the improvement effort and the implementation of the medication price database project

133. Price database: Number of countries using the list from the medication price database

Numerator: No. of countries which use the price database list
Denominator: N/A
Period of measurement: Annually
Source: ISAGS/UNASUR information system
Explanation: Determining participation specifically in using the price database

134. Price database: proper implementation\textsuperscript{16} of the medication price database

Numerator: Implementation budgets, action programmes and reports for the medication price database
Denominator: Budget planned for the price database
Period of measurement: Annually
Source: UNASUR and ISAGS information system
Explanation: Determining the effectiveness in the implementation of the price database

135. Price database: number of countries that reported at least 40\% of the listed medications

Numerator: No. of countries that reported at least 40\% of the medications listed in the price database
Denominator: N/A

\textsuperscript{16}To be defined by UNASUR
Period of measurement: Annually
Source: Information reporting systems of ISAGS, national ministries of health
Explanation: Determining the extent of the use of the price database

136. **Joint purchase of medications: number of medications traded between the UNASUR member countries**

Numerator: No. of medications traded between UNASUR member countries on the issue of the joint purchase of medications
Denominator: N/A
Period of measurement: Annually
Source: Information system of the strategic fund of the PAHO, WHO, ISAGS, UNASUR
Explanation: Determining the specific implementation of the joint purchasing strategy in respect of negotiations of medications

137. **Joint purchase of medications: number of preparatory meetings**

Numerator: No. of preparatory meetings to implement the joint purchasing of medications
Denominator: N/A
Period of measurement: Annually
Source: Information system of the strategic fund of the PAHO, WHO, ISAGS, UNASUR
Explanation: Determining the training and cooperation efforts of regional agencies to implement joint purchasing

138. **Joint purchase of medications: Proper implementation\(^{17}\) in the joint purchase of medications in countries**

Numerator: No. of countries that buy medications jointly, within the strategic PAHO/WHO fund.
Denominator: N/A
Period of measurement: Annually
Source: Information system of the strategic PAHO, WHO fund, ISAGS, UNASUR, national import accounts
Explanation: Determining the implementation of the strategy for the joint purchase of medications

\(^{17}\)To be defined by UNASUR
139. Joint purchase of medications: number of subscribed countries

Numerator: No. of subscribed countries
Denominator: N/A
Period of measurement: Annually
Source: ISAGS/UNASUR information system
Explanation: Determining the commitment of countries to the joint purchasing of medications strategy

Output:

140. Number of proposals to respond to global access to medications

Numerator: No. of proposals made by UNASUR to respond to global access to medications
Denominator: Total No. of proposals from UNASUR
Period of measurement: Annually
Source: Information event systems of UNASUR and ISAGS, press releases and reports, information reporting systems and planning by global organisations
Explanation: Determining the scope of UNASUR in terms of global access to medications

141. Number of experts trained in the field of access to medications

Numerator: No. of experts trained and funded/organised by UNASUR on access to medications
Denominator: N/A
Period of measurement: Annually
Source: ISAGS personnel information system
Explanation: Determining the strategic workforce to improve access to medications

142. Number of draft resolutions on medications approved by the Board of Health or Chancellors

Numerator: No. of draft resolutions on medications approved by the Board of Health or Chancellors
Denominator: N/A

Period of measurement: Annually

Source: ISAGS/UNASUR information system

Explanation: Determining the level of commitment of other stakeholders within the UNASUR at regional level

143. **Number of projects with other agencies on access to medications for the region**

Numerator: No. of projects with other organisations, such as Mercosur, CAN and OAS, on the issue of access to medications

Denominator: N/A

Period of measurement: Annually

Source: Information system of ISAGS/UNASUR, NGOs, WHO, PAHO, regional bodies

Explanation: Determining the coordination of various levels in respect of projects to improve access to medications in the region

144. **Joint purchase of medications: medications purchased through the strategic PAHO/WHO fund**

Numerator: Amount of medications purchased jointly

Denominator: N/A

Period of measurement: Annually

Source: ISAGS/UNASUR information system

Explanation: Determining the implementation of the joint purchasing of medications project

145. **Joint purchase of medications: total volume of medications purchased through the strategic PAHO/WHO fund**

Numerator: Total no. of medications purchased jointly

Denominator: N/A

Period of measurement: Annually

Source: PAHO/WHO information systems, national accounts, national balance sheets

Explanation: Determining the level of commitment to the joint purchase of
medications

**Outcome:**

146. *Number of common positions of UNASUR on access to medications approved in multilateral spaces*

Numerator: No. of common positions of UNASUR on access to drugs approved in multilateral areas

Denominator: N/A

Period of measurement: Annually

Source: UNASUR/ISAGS, multilateral space information systems (WHO, PAHO, UN, etc.)

Explanation: Determining the scope of UNASUR at global and multilateral level

147. *Average rate of access to medications between member states*

Numerator: Total of national estimates of access to medications

Denominator: Total no. of UNASUR member states (12)

Period of measurement: 1-5 years

Source: Information systems of ISAGS, national administrations, population-based surveys

Explanation: Determining the regional average for access to medications

148. *Medication price database: percentage of products that experienced a reduction in price asymmetries between the UNASUR member states*

Numerator: No. of medications in the price database whose prices are below the average of the prices of the UNASUR member countries x 100

Denominator: No. of medications on the database list

Period of measurement: Annually

Source: Information systems of ministries of health, NGOs, national accounts, medication price database

Explanation: Determining if the price database has helped to reduce price asymmetries between countries
149. Joint purchase of medications: percentage of population with coverage from the medications purchased under this framework by disease

Numerator: No. of people suffering from disease x who have coverage from the medication needed in the joint purchase framework

Denominator: Population suffering from disease x

Period of measurement: Annually

Source: National administrative information, health centre and pharmacy information systems

Explanation:

150. Joint purchase of medications: regional decrease in purchase price of medications

Numerator: The difference between the index of medication prices in year X and year Y

Denominator: Price index in year X

Period of measurement: Annually, biannually

Source: Information systems of pharmaceutical companies

Explanation: Determining the evolution of medication prices after having implemented the price database and the joint purchasing strategy

151. Joint purchase of medications: reduction in the average price in comparison with the international average

Numerator: The international average price in year Y less the difference between the medication price index in year X and year Y at regional level

Denominator: Average price

Period of measurement: 1-5 years

Source: Information system of WHO, PAHO, ISAGS

Explanation: Determining the range of the price of medicines in the UNASUR region compared with international level and its evolution
## Annex 2. Health-related Sustainable Development Goals and subgoals

<table>
<thead>
<tr>
<th>SDGs</th>
<th>Goals</th>
<th>Targets</th>
<th>Indicators</th>
<th>In addition, the following Complementary National Indicators relate to health according to the document</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total: 17 goals, 169 targets and 100 indicators (more to be developed in the negotiations)</td>
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<tr>
<td>1</td>
<td>End poverty in all its forms everywhere</td>
<td>By 2030, reduce at least by half the proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions</td>
<td>a. Multidimensional Poverty Index</td>
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<td></td>
<td>By 2030 ensure that all men and women, particularly the poor and the vulnerable, have</td>
<td>a. Percentage of eligible population covered by national social protection programs</td>
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</tbody>
</table>
equal rights to economic resources, as well as access to basic services, ownership, and control over land and other forms of property, inheritance, natural resources, appropriate new technology, and financial services including microfinance.

| 2. | End hunger, achieve food security and improved nutrition and promote sustainable agriculture | By 2030 end hunger and ensure access by all people, in particular the poor and people in vulnerable situations including infants, to safe, nutritious food | a. Proportion of population below minimum level of dietary energy consumption (MDG Indicator)  
b. Percentage of women of reproductive age (15-49) with anemia  
c. Prevalence of stunting and wasting in children under 5 years of age  
d. Percentage of infants under 6 months who are exclusively breast fed | • Percentage of births attended by skilled health personnel (MDG Indicator)  
• Antenatal care coverage (at least one visit and at least four visits) (MDG Indicator)  
• Post-natal care coverage (one visit) (MDG Indicator) |
| and sufficient food all year round | e. Percentage of women (15-49) who consume at least 5 out of 10 defined food groups  

f. Percentage of population with shortfalls of: iron, zinc, iodine, vitamin A, folate, vitamin B12 [and vitamin D]  
g. Proportion of infants 6-23 months of age who receive a minimum acceptable diet  
h. Percentage children born with low birth weight |
|----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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 | a. Percentage of women of reproductive age (15-49) with anemia  
b. Prevalence of stunting and wasting in children under 5 years of age  
c. Percentage of infants under 6 months who are exclusively breast fed  
d. Percentage of population with shortfalls of: iron, zinc, iodine, vitamin A, folate, vitamin B12 [and vitamin D]  
e. Proportion of infants 6-23 months of age who receive a minimum acceptable diet |
| 3. | Ensure healthy lives and promote well-being for all at all ages | By 2030 reduce the global maternal mortality ratio to less than 70 per 100,000 live births | a. Maternal mortality ratio (MDG Indicator) and rate
b. Percentage of births attended by skilled health personnel (MDG Indicator)
c. Antenatal care coverage (at least one visit and at least four visits) (MDG Indicator)
d. Post-natal care coverage (one visit) (MDG Indicator)
e. Coverage of iron-folic acid supplements for pregnant women (%)
f. Percentage of health facilities meeting service specific readiness requirements | • Percentage of population with shortfalls of: iron, zinc, iodine, vitamin A, folate, vitamin B12, and vitamin D
• Percentage children born with low birth weight
• Proportion of infants 6–23 months of age who receive a minimum acceptable diet
• Percentage children born with low birth weight
• Percentage of births attended by skilled health personnel (MDG Indicator)
• Antenatal care coverage (at least one visit and at least four visits) (MDG Indicator)
• Post-natal care coverage (one visit) (MDG Indicator)
• Coverage of iron-folic acid supplements for pregnant women (%)
• Incidence rate of diarrheal disease in children under 5 years
• Percentage of 1 year-old children immunized against measles (MDG Indicator)
• Percent HIV+ pregnant women receiving PMTCT
• Condom use at last high-risk sex (MDG Indicator)
• Percentage of tuberculosis cases detected and
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<td>Cured under directly observed treatment short course (MDG Indicator)</td>
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<td>• Percentage of children under 5 with fever who are treated with appropriate anti-malarial drugs (MDG Indicator)</td>
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<td>• Percentage of people in malaria-endemic areas sleeping under insecticide-treated bed nets (modified MDG Indicator)</td>
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<td>• Percentage of pregnant women receiving malaria IPT (in endemic areas)</td>
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<td>• Neglected Tropical Disease (NTD) cure rate</td>
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<td>• Incidence and death rates associated with hepatitis</td>
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<td>• Percentage of women with cervical cancer screening</td>
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<td>• Percentage of adults with hypertension diagnosed &amp; receiving treatment</td>
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<td>• Harmful use of alcohol</td>
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<td>• Waiting time for elective surgery</td>
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<td>• Prevalence of insufficient physical activity</td>
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<td>• Fraction of calories from saturated fat and added sugar</td>
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<td></td>
<td>• Age-standardized mean population intake of salt (sodium chloride) per day in grams in</td>
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<td>persons aged 18+ years</td>
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<tr>
<td>• Prevalence of persons (aged 18+ years) consuming less than five total servings (400 grams) of fruit and vegetables per day</td>
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<tr>
<td>• Percentage change in per capita [red] meat consumption relative to a 2015 baseline</td>
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<tr>
<td>• Age-standardized (to world population age distribution) prevalence of diabetes (preferably based on HbA1c), hypertension, cardiovascular disease, and chronic respiratory disease.</td>
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<tr>
<td>• [Mortality from indoor air pollution] – to be developed</td>
<td></td>
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<tr>
<td>• Percentage of health facilities meeting service specific readiness requirements.</td>
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<tr>
<td>• Percentage of population with access to affordable essential drugs and commodities on a sustainable basis</td>
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<td>• Percentage of new health care facilities built in compliance with building codes and standards</td>
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<tr>
<td>• Public and private R&amp;D expenditure on health (% GNP)</td>
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<tr>
<td>• Ratio of health professionals to population (MDs, nurse midwives, nurses, community health workers, EmOC caregivers)</td>
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<tr>
<td>• Percentage of women and men aged 15–49 who report discriminatory attitudes towards people living with HIV</td>
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| By 2030 end preventable deaths of newborns and under-5 children | a. Percentage of infants under 6 months who are exclusively breast fed  
b. Neonatal, infant, and under-5 mortality rates (modified MDG Indicator)  
c. Percent of children receiving full immunization (as recommended by national vaccination schedules)  
d. Percentage of births attended by skilled health personnel (MDG Indicator)  
e. Antenatal care coverage (at least one visit and at least four visits) (MDG Indicator)  
f. Post-natal care coverage (one visit) (MDG Indicator)  
g. Incidence rate of diarrheal disease in children under 5 years  
h. Percentage of children under 5 with fever who are treated with appropriate anti-malarial drugs (MDG Indicator) |
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<tr>
<td><strong>By 2030 end the epidemics of AIDS, tuberculosis, and neglected tropical diseases and combat hepatitis, water-borne diseases, and other communicable diseases</strong></td>
<td>a. Percent of children receiving full immunization (as recommended by national vaccination schedules)</td>
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<tr>
<td></td>
<td>b. HIV incidence, treatment rate, and mortality (modified MDG Indicator)</td>
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<tr>
<td></td>
<td>c. Incidence, prevalence, and death rates associated with all forms of TB (MDG Indicator)</td>
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<td></td>
<td>d. Incidence and death rates associated with malaria (MDG Indicator)</td>
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<td>e. [Consultations with a licensed provider in a health facility or in the community per person, per year] – to be developed</td>
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<td>f. [Percentage of population without effective financial protection or health care, per year] – to be developed</td>
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<td></td>
<td>g. Incidence rate of diarrheal disease in children under 5 years</td>
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<td></td>
<td>h. Percentage of 1 year-old children immunized against measles (MDG Indicator)</td>
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<td></td>
<td>i. Percent HIV+ pregnant women receiving PMTCT</td>
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<td>j. Condom use at last high-risk sex (MDG Indicator)</td>
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<td>k.</td>
<td>Percentage of tuberculosis cases detected and cured under directly observed treatment short course (MDG Indicator)</td>
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<td>l.</td>
<td>Percentage of children under 5 with fever who are treated with appropriate anti-malarial drugs (MDG Indicator).</td>
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<td>m.</td>
<td>Percentage of people in malaria-endemic areas sleeping under insecticide-treated bed nets (modified MDG Indicator).</td>
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<td>Percentage of confirmed malaria cases that receive first-line antimalarial therapy according to national policy.</td>
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<td>r.</td>
<td>Incidence and death rate associated with hepatitis</td>
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<tr>
<td>s.</td>
<td>Percentage of women and men aged 15-49 who report discriminatory attitudes towards people living with HIV</td>
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</tbody>
</table>
| **By 2030 reduce by one-third premature mortality from non-communicable diseases (NCDs) through prevention and treatment, and promote mental health and wellbeing** | **a. Probability of dying between exact ages 30 and 70 from any of cardiovascular disease, cancer, diabetes, chronic respiratory disease, [or suicide]**

b. Percent of population overweight and obese, including children under 5
c. [Consultations with a licensed provider in a health facility or in the community per person, per year] – to be developed
d. Proportion of persons with a severe mental disorder (psychosis, bipolar affective disorder, or moderate-severe depression) who are using services
e. Current use of any tobacco product (age-standardized rate)
f. Percentage of women with cervical cancer screening
g. Percentage with hypertension diagnosed & receiving treatment
h. Waiting time for elective surgery
i. Prevalence of insufficient physical activity
j. Fraction of calories from saturated fat and added sugar
k. Age-standardized mean population intake of salt (sodium chloride) per day in grams in persons aged 18+ |
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<td>l.</td>
<td>Prevalence of persons (aged 18+ years) consuming less than five total servings (400 grams) of fruit and vegetables per day</td>
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<td>Percentage change in per capita [red] meat consumption relative to a 2015 baseline</td>
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<tr>
<td>n.</td>
<td>Age-standardized (to world population age distribution) prevalence of diabetes (preferably based on HbA1c), hypertension, cardiovascular disease, and chronic respiratory disease.</td>
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<td></td>
<td>Strengthen prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol</td>
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<tr>
<td>a.</td>
<td>Current use of any tobacco product (age-standardized rate)</td>
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<tr>
<td>b.</td>
<td>Harmful use of alcohol</td>
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<td></td>
<td>By 2030 halve global deaths from road traffic accidents</td>
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<td>a.</td>
<td>Road traffic deaths per 100,000 population</td>
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By 2030 ensure universal access to sexual and reproductive health care services, including for family planning, information and education, and the integration of reproductive health into national strategies and programs

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<tbody>
<tr>
<td></td>
<td>a. Total fertility rate</td>
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<td>b. Contraceptive prevalence rate (MDG Indicator)</td>
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<td></td>
<td>c. Met demand for family planning (modified MDG Indicator)</td>
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<td>d. Adolescent birth rate (MDG Indicator)</td>
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<td></td>
<td>e. Percentage of young people receiving comprehensive sexuality education</td>
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</table>
| Achieve universal health coverage (UHC), including financial risk protection, access to quality essential health care services, and access to safe, effective, quality, and affordable essential medicines and vaccines for all | a. Percent of children receiving full immunization (as recommended by national vaccination schedules)  
b. [Consultations with a licensed provider in a health facility or in the community per person, per year] – to be developed  
c. [Percentage of population without effective financial protection or health care, per year] – to be developed  
d. Healthy life expectancy at birth  
ed. Waiting time for elective surgery  
e. Percentage of health facilities meeting service specific readiness requirements  
f. Percentage of population with access to affordable essential drugs and commodities on a sustainable basis  
g. Percentage of new health care facilities built in compliance with building codes and standards  
h. Ratio of health professionals to population (MDs, nurse midwives, nurses, community health workers, EmOC caregivers) |
| By 2030 substantially reduce the number of deaths and illnesses | a. Mean urban air pollution of particulate matter (PM10 and PM2.5)  
b. [Mortality from indoor air pollution] – to be developed |
<table>
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<tr>
<th>Description</th>
<th>Indicators</th>
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<tr>
<td>from hazardous chemicals and air, water, and soil pollution and contamination</td>
<td>c. [Indicator on chemical pollution] – to be developed</td>
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<tr>
<td>A strengthen implementation of the Framework Convention on Tobacco Control in all countries as appropriate</td>
<td>a. Current use of any tobacco product (age-standardized rate)</td>
</tr>
<tr>
<td>Support research and development of vaccines and medicines for the communicable and non-communicable diseases that primarily affect developing countries, provide access to affordable essential medicines and vaccines, in accordance with the Doha</td>
<td>a. Percentage of population with access to affordable essential drugs and commodities on a sustainable basis</td>
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<tr>
<td></td>
<td>b. Public and private R&amp;D expenditure on health (% GNP)</td>
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<td></td>
<td>c. [Indicator on technology sharing and diffusion] – to be developed</td>
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<tr>
<td>Declaration which affirms the right of developing countries to use to the full the provisions in the TRIPS agreement regarding flexibilities to protect public health and, in particular, provide access to medicines for all</td>
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<td>Increase substantially health financing and the recruitment, development and training and retention of the health workforce in developing countries, especially in LDCs and SIDS</td>
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<td></td>
<td>a. Official development assistance and net private grants as percent of GNI</td>
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<td></td>
<td>b. Domestic revenues allocated to sustainable development as percent of GNI, by sector</td>
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<tr>
<td></td>
<td>c. Public and private R&amp;D expenditure on health (% GNP)</td>
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<tr>
<td></td>
<td>d. Ratio of health professionals to population (MDs, nurse midwives, nurses, community health workers, EmOC caregivers)</td>
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<tr>
<td></td>
<td>Achieve gender equality and empower all women and girls</td>
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</table>
| 5 | Strengthen the capacity of all countries particularly developing countries, for early warning risk reduction, and management of national and global health risks | a. Official development assistance and net private grants as percent of GNI  
   b. Domestic revenues allocated to sustainable development as percent of GNI, by sector  
   c. Public and private R&D expenditure on health (% GNP)  
   d. Ratio of health professionals |   |
|   | Eliminate all harmful practices, such as child, early and forced marriage and female genital | a. Prevalence of girls and women 15-49 who have experienced  
   b. Percentage of girls and women aged 15-49 years who have undergone FGM/C |   |
| mutilations | Ensure universal access to sexual and reproductive health and reproductive rights as agreed in accordance with the Programme of Action of the ICPD and the Beijing Platform for Action and the outcome documents of their review conferences | a. Met demand for family planning (modified MDG Indicator) |
| 6. | Ensure availability and sustainable management of water and sanitation for all | By 2030, achieve universal and equitable access to safe and affordable drinking water for all | a. Percentage of population using safely managed water services, by urban/rural (modified MDG Indicator)  
b. Percentage of wastewater flows treated to national standards [and reused] – to be developed  
c. Proportion of total water resources used (MDG Indicator)  
d. Percentage of population with basic hand washing facilities with soap and water at home  
e. Percentage of pupils enrolled in primary schools and secondary schools providing basic drinking water, adequate sanitation, and adequate hygiene services.  
d. Percentage of beneficiaries using hospitals, health centers and clinics providing basic drinking water, adequate sanitation, and adequate hygiene | *Percentage of young people receiving comprehensive sexuality education*  
*Percentage of population practicing open defecation*  
*Percentage of population with basic hand washing facilities with soap and water at home*  
*Proportion of the population connected to collective sewers or with on-site storage of all domestic wastewaters*  
*Percentage of pupils enrolled in primary schools and secondary schools providing basic drinking water, adequate sanitation, and adequate hygiene services.*  
*Percentage of beneficiaries using hospitals, health centers and clinics providing basic drinking water, adequate sanitation, and adequate hygiene* |
by 2030, achieve access to adequate and equitable sanitation and hygiene for all, and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations

| 7 | Ensure access to affordable, reliable, sustainable and modern energy for all by 2030 ensure universal access to affordable, reliable, and modern energy services | a. Percentage of population using safely managed sanitation services, by urban/rural (modified MDG Indicator)  

b. Percentage of population practicing open defecation  
c. Percentage of population with basic hand washing facilities with soap and water at home  
d. Proportion of the population connected to collective sewers or with on-site storage of all domestic wastewaters  
e. Percentage of pupils enrolled in primary schools and secondary schools providing basic drinking water, adequate sanitation, and adequate hygiene services.  
f. Percentage of beneficiaries using hospitals, health centers and clinics providing basic drinking water, adequate sanitation, and adequate hygiene services.  

|  | a. Share of the population using modern cooking solutions, by urban/rural  
b. Share of the population using reliable electricity, by urban/rural |
| 9 | Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation | Develop quality, reliable, sustainable and, resilient infrastructure, including regional and trans-border infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all | a. Percentage of population using safely managed water services, by urban/rural (modified MDG Indicator)  
b. Percentage of population using basic sanitation services, by urban/rural (modified MDG Indicator)  
c. Share of the population using modern cooking solutions, by urban/rural  
d. Share of the population using reliable electricity, by urban/rural  
e. Access to all-weather road (% access within [x] km distance to road)  
f. Mobile broadband subscriptions per 100 inhabitants, by urban/rural  
g. Index on ICT maturity  
h. Percentage of households with Internet, by type of service by urban/rural areas |
| 11 | Make cities and human settlements inclusive, safe, resilient and sustainable by 2030, ensure access for all to adequate, safe and affordable housing and basic services, and upgrade slums | a. Percentage of eligible population covered by national social protection programs  
b. [Consultations with a licensed provider in a health facility or the community per person, per year] – to be developed  
c. Percentage of population using safely managed water services, by urban/rural (modified MDG Indicator)  
d. Percentage of population using basic sanitation services, by urban/rural (modified MDG Indicator)  
e. Share of the population using modern cooking solutions, by urban/rural  
f. Share of the population using reliable electricity, by urban/rural  
g. Percentage of urban population living in slums or informal settlements (MDG Indicator) |
| 16 | Promote peaceful and inclusive societies for Significantly reduce all forms of violence and related death | a. Violent injuries and deaths per 100,000 population  
b. Number of refugees |
<table>
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<tr>
<th>sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels</th>
<th>rates everywhere</th>
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<tr>
<td>By 2030 provide legal identity for all including free birth registrations</td>
<td>a. Percentage of children under age 5 whose birth is registered with a civil authority</td>
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<tr>
<td>17 Strengthen the means of implementation and revitalize the global partnership for sustainable development</td>
<td>by 2030, build on existing initiatives to develop measurements of progress on sustainable development that complement GDP, and support statistical capacity building in developing countries</td>
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Annex 3. Workshop participants

<table>
<thead>
<tr>
<th>Workshop</th>
<th>Name</th>
<th>Country</th>
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<tbody>
<tr>
<td><strong>First workshop: ISAGS. Rio de Janeiro, Brazil</strong></td>
<td>1. Cesar Cabral</td>
<td>Paraguay</td>
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<tr>
<td></td>
<td>2. Andrés Coitiño</td>
<td>Uruguay</td>
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<tr>
<td></td>
<td>3. Mariana Faria</td>
<td>Brazil</td>
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<tr>
<td></td>
<td>4. Henri Jouval</td>
<td>Brazil</td>
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<tr>
<td></td>
<td>5. Tomás Pippo</td>
<td>Argentina</td>
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<tr>
<td></td>
<td>6. Marcelo Rojas</td>
<td>Bolivia</td>
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<tr>
<td></td>
<td>7. Delia Sánchez</td>
<td>Uruguay</td>
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<td></td>
<td>8. Katherine Tobar</td>
<td>Ecuador</td>
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<td></td>
<td>9. José Ueleres</td>
<td>Brazil</td>
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<tr>
<td><strong>Second Workshop: UNASUR. Ciudad Mitad del Mundo, Ecuador</strong></td>
<td>1. Elena Clavell</td>
<td>Uruguay</td>
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<tr>
<td></td>
<td>2. Mariana Faria</td>
<td>Brazil</td>
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<td></td>
<td>3. Gustavo Giler</td>
<td>Ecuador</td>
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<td></td>
<td>4. Jaqueline Lozano</td>
<td>Ecuador</td>
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<td></td>
<td>5. Santiago López</td>
<td>Ecuador</td>
</tr>
<tr>
<td></td>
<td>6. Cristina Luna</td>
<td>Ecuador</td>
</tr>
<tr>
<td></td>
<td>7. Tomás Pippo</td>
<td>Argentina</td>
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<tr>
<td></td>
<td>8. Marcelo Rojas</td>
<td>Bolivia</td>
</tr>
<tr>
<td><strong>Third workshop: FLACSO-Argentina. Buenos Aires, Argentina</strong></td>
<td>1. Elena Clavell</td>
<td>Uruguay</td>
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<tr>
<td></td>
<td>2. Mariana Faria</td>
<td>Brazil</td>
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<td>4. Cecilia Irazusta</td>
<td>Paraguay</td>
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<td></td>
<td>7. José Ueleres</td>
<td>Brazil</td>
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