The objective of this article is to present the overview of the sexual and reproductive health (SRH) indicators that have been used to monitor changes during the last 20 years in this domain.

Definitions of SRH – understanding what we are trying to measure and monitor

For the last 20 years, the definition of reproductive health (RH) has been formulated on the definition that was published in the Programme of Action of the International Conference on Population and Development (ICPD) in Cairo, 1994.

Within the framework of the World Health Organization’s (WHO) definition of health as a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity, RH addresses the reproductive processes, functions and systems at all stages of life. RH implies that people are able to have a responsible, satisfying and safe sex life and that they have the capability to reproduce and the freedom to decide if, when and how often to do so. Implicit in this are the right of men and women to be informed of and to have access to safe, effective, affordable and acceptable methods of fertility regulation of their choice and to appropriate health care services that will enable women to go safely through pregnancy and childbirth and provide couples with the best chance of having a healthy infant.

According to the WHO working definition sexual health is “a state of physical, emotional, mental and social well-being in relation to sexuality; it is not merely the absence of disease, dysfunction or infirmity. Sexual health requires a positive and respectful approach to sexuality and sexual relationships, as well as the possibility of having pleasurable and safe sexual experiences, free of coercion, discrimination and violence. For sexual health to be attained and maintained, the sexual rights of all persons must be respected, protected and fulfilled” (WHO, 2006).

SRH indicators – an evolving landscape

The Programme of Action of ICPD set targets and some of them included indicators. Since the ICPD in Cairo, inter-agency groups, led by the WHO, have been working on the development of indicators to monitor SRH in countries and globally.

In 1997 the Report of an interagency technical meeting “Reproductive Health Indicators for Global Monitoring” was published. It included 17 “working” minimal list of RH indicators (see Text Box 1).

Three years later, the Second interagency meeting on RH indicators for global monitoring was organized. Their mandate was to review the existing common set of RH indicators for global monitoring. Following the review the interagency group recommended the addition of HIV/AIDS indicators. The resulting 17 RH indicators published in the report of the Second Interagency meeting included detailed explanation including justification for selection (see Text Box 2).

These indicators were used in the WHO European Sexual and Reproductive Health Strategy of 2001 which was used as a framework in the development of many national SRH policy documents (3). However, collection of the SRH health information has been a challenge in many countries. As several indicators can be monitored only using regular surveys, often some data, for example – contraceptive prevalence, are missing. Since then there have been several attempts to prioritize indicators and to improve the methodology of their collection.

The Millennium Development Goal (MDG) 5 targets and indicators have also been used by countries to monitor their achievements (see Text Box 3). However this has also proved challenging as the definition of “skilled health personnel” and “universal access to health care” has not always been clear or easy to specify.

The European Commission has also supported the process of the development and collection of perinatal and reproductive health information through their PERISTAT and REPROSTAT projects. The EURO-PERISTAT indicators are collected in 4 groups (5):

1. Fetal, neonatal and child health that includes data on fetal, neonatal and infant mortality, birth weight, etc.
2. Maternal health includes data on maternal mortality and morbidity.
3. Population characteristics/risk factors – from maternal age to information on education, body mass index before pregnancy, smoking during pregnancy and other indicators.

Text Box 1. “Working” minimal list of RH indicators 1997 (1).

1. Total fertility rate
2. Fertility rate of women 15-19 years old
3. Contraceptive prevalence rate (modern contraception)
4. Maternal Mortality Ratio
5. Proportion of women attended at least once during pregnancy for reasons related to pregnancy
6. Proportion of births attended by trained health personnel (excluding trained and untrained traditional birth attendants)
7. Number of health centres per 500 000 population with functioning basic essential obstetric care (basic EOC)
8. Number of hospitals per 500 000 population with functioning comprehensive essential obstetric care (comprehensive EOC)
9. Proportion of babies under four months old who are exclusively breast fed
10. Perinatal mortality rate
11. Proportion of live births of low birth weight
12. Positive syphilis serology prevalence in pregnant women
13. Proportion of pregnant women routinely screened for hemorrhoglobin levels who are anaemic
14. Facility-based fatality rates for post-abortion complications
15. Estimated prevalence of women who have been genitaly mutilated
16. Proportion of service delivery points offering PAP smear tests
17. Proportion of women aged 20-44 years who are sexually active, are not using contraception or lactating, who want a pregnancy and have not become pregnant during the last two years
Text Box 2. The 17 RH Indicators 2001 (2).

<table>
<thead>
<tr>
<th>Area</th>
<th>Core indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sexually transmitted infections/</td>
<td>HIV prevalence (pregnant women)</td>
</tr>
<tr>
<td>Sexual behaviour</td>
<td></td>
</tr>
<tr>
<td>Contraception</td>
<td>Contraceptive Prevalence</td>
</tr>
<tr>
<td>Youth</td>
<td>Median age at first intercourse</td>
</tr>
<tr>
<td></td>
<td>Contraceptive use at first intercourse</td>
</tr>
<tr>
<td></td>
<td>Teenage birth rate</td>
</tr>
<tr>
<td>Contraception</td>
<td></td>
</tr>
<tr>
<td>Fertility and reproduction</td>
<td>Maternal age at 1st childbirth</td>
</tr>
<tr>
<td></td>
<td>Total fertility rate</td>
</tr>
<tr>
<td></td>
<td>% trying to get pregnant</td>
</tr>
<tr>
<td>Abortion</td>
<td>Induced abortions</td>
</tr>
<tr>
<td>Emergency areas</td>
<td>Hysterectomy rate</td>
</tr>
</tbody>
</table>

4. Health care services – additional information on subfertility, antenatal care, delivery and neonatal intensive care.

The REPROSTAT project, supported by the European Commission, developed and produced the document “Reproductive Health Indicators in the European Union” (6) to aid with monitoring RH. It included 13 core indicators as well as one recommended indicator and a number of indicators for future development (see Table 1).

The WHO’s first global strategy on RH was adopted by the 57th World Health Assembly in 2004. It was followed by the publication of “Accelerating progress towards the attainment of international reproductive health goals: a framework for implementing the WHO Global Reproductive Health Strategy” in 2006. This document for the first time included input, process and output indicators as well as the outcome and impact indicators (7).

In 2007 the WHO and UNFPA organized a technical consultation on RH indicators and RH indicators were grouped as follows (8):

- Indicators of policy and social determinants;
- Indicators of access;
- Indicators of service use; and
- Outcome/impact indicators.

The indicators recommended by this consultation were designed to complement and expand upon the 17 RH indicators (2).

While RH indicators have been analyzed and revised by the WHO, UNFPA and other agencies on a regular basis the same is not true for sexual health (SH). One of the first documents “Measuring sexual health: conceptual and practical considerations and related indicators” focusing specifically on measuring SH was published in 2010 (9). The source of information for more than 50 proposed indicators was outlined in this document. Interestingly, for 11 of the indicators the recommended data source is law/policy reviews, for 7 – facility surveys and for 15 – national surveys. The challenge with national surveys is that they require time and funding and as a result the number of countries who are carrying out such representative studies in the WHO European Region is limited. In countries of eastern Europe and central Asia – European Region is limited. In countries of eastern Europe and central Asia –

The recently approved SDGs have several targets related to SRH and within this context the principles for setting SDG indicators are well defined (10). Indicators must be:

1. Limited in number and globally harmonized;
2. Simple, single-variable indicators, with straightforward policy implications;
3. Allow for high frequency monitoring;
4. Consensus based, in line with international standards and system-based information;
5. Constructed from well-established data sources;
6. Disaggregated;

Table 1. REPROSTAT list of indicators (6).
7. Universal;
8. Mainly outcome-focused;
9. Science-based and forward-looking; and
10. A proxy for broader issues or conditions.

The suggested SDG indicators confirm that SRH and rights is linked with almost all the SDGs, for example (10):

**Goal 1.** End poverty in all its forms everywhere includes “Total fertility rate” as an indicator;

**Goal 2.** End hunger, achieve food security and improved nutrition and promote sustainable agriculture - includes the following SRH indicator “Percentage of infants under 6 months who are exclusively breast fed;”

**Goal 3.** Ensure healthy lives and promote well-being for all at all ages incorporates the following 4 SRH indicators:
- “Maternal mortality ratio (MDG Indicator) and rate,”
- “Neonatal, infant, and under-5 mortality rates,”
- “HIV incidence, treatment rate, and mortality,”
- “Contraceptive prevalence rate;” and

**Goals 5.** Achieve gender equality and empower all women and girls includes the following indicators relevant to SRH:
- “Prevalence of girls and women 15-49 who have experienced physical or sexual violence [by an intimate partner] in the last 12 months;”
- “Percentage of referred cases of sexual and gender-based violence against women and children that are investigated and sentenced;”
- “Percentage of girls and women aged 15-49 years who have undergone Female Genital Mutilation/Cutting” and
- “Met demand for family planning.”

Several indicators are still under development. For monitoring the progress of countries in achieving SDGs comprehensive national indicators are also suggested. Many of them cover SRH and rights areas.

SRH is also one of the implementation packages through the life course in the renewed UN Strategy on Women’s, Children’s and Adolescents Health 2016-2030. “Improved monitoring, evaluation and accountability” is one of the principles of the renewed UN Strategy. The Strategy includes the list of evidence-based health interventions that may be used as basis for the data collection and monitoring (see Text Box 4).

### Text Box 3. MDG 5 Targets and Indicators (4).

<table>
<thead>
<tr>
<th>Target 5A: Reduce by three-quarters, between 1990 and 2015, the maternal mortality ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.1 Maternal mortality ratio</td>
</tr>
<tr>
<td>5.2 Proportion of births attended by skilled health personnel</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Target 5B: Achieve, by 2015, universal access to reproductive health</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.3 Contraceptive prevalence rate</td>
</tr>
<tr>
<td>5.4 Adolescent birth rate</td>
</tr>
<tr>
<td>5.5 Antenatal care coverage (at least one visit and at least four visits)</td>
</tr>
<tr>
<td>5.6 Unmet need for family planning</td>
</tr>
</tbody>
</table>

### Text Box 4. Examples of interventions focusing on WOMEN (including pre-pregnancy interventions) (11).

- Information, counselling and services for comprehensive SRH including contraception;
- Prevention, detection and treatment of communicable and noncommunicable diseases and sexually transmitted and reproductive tract infections including HIV, TB and syphilis;
- Iron/folic acid supplementation (pre-pregnancy);
- Screening for and management of cervical and breast cancer;
- Safe abortion (wherever legal) and post-abortion care;
- Prevention of and response to sexual and other forms of gender-based violence; and
- Pre-pregnancy detection and management of risk factors (nutrition, obesity, tobacco, alcohol, mental health, environmental toxins) and genetic conditions.

### Text Box 5. Criteria and principles agreed at the expert meetings used to select the final list of indicators for Health 2020.

- As far as possible, the proposed indicators should be selected on the basis of their routine availability for most countries.
- The final number of indicators should be kept to a minimum.
- While the importance of indicators and targets already the subject of other collections (such as the Millennium Development Goals or Parma Declaration) was recognized, they should not be repeated, in order to keep the list short.
- Some indicators will serve several targets.
- Because of availability and comparability issues (including, for example, mental health, healthy ageing and health system performance), the list of indicators is not able to reflect all relevant policy areas in a balanced way.
- Even if rates at the national level for certain indicators are already favourable, indicators should be used for monitoring (and accountability) where possible.
- Basic demographic information, including age distribution of populations, should be included in addition to the indicator set.
- All rates reported by indicators should be age-standardized.
- Where possible and available, indicator data should be reported disaggregated by age, sex and ethnicity and by socioeconomic, vulnerable and subnational groups; this will be subject to data availability and may vary according to the specific indicator.
- There is a need for a set of core (level 1) indicators that all Member States should be monitoring but Member States should also consider additional (level 2) indicators. The core data would be a basic minimum to facilitate regional assessments. Voluntary reporting on the additional indicators should be encouraged as they are useful for informing national target area evaluations. Core indicators need to be comparable across the WHO European Region as they will be used for regional target monitoring. Other indicators used at the national level require only “internal” comparability.

**Health 2020 targets and indicators – process and monitoring framework**

**Health 2020** is the health policy of the WHO Regional Office for Europe. **Health 2020** aims to support actions across government and society to significantly improve the health and well-being of
populations, reduce health inequalities, strengthen public health and ensure people-centred health systems that are universal, equitable, sustainable and of high quality. It was adopted by the Regional Committee in the year 2012.

In 2011, one year before the adoption of Health 2020, it was agreed at the Regional Committee that a monitoring framework should be developed and that the targets should be SMART: Specific, Measurable, Achievable, Reliable and Timely. The 6 overarching targets were agreed, namely:

1. Reduce premature mortality in Europe by 2020,  
2. Increase life expectancy in Europe, 
3. Reduce inequities in Europe (social determinants target), 
4. Enhance the well-being of the European population, 
5. Universal coverage and the “right to health” and 

In addition to the conceptual considerations for each of the six overarching targets/areas, attention should also be given to the attributes of the overall package of European targets, balancing for example process and outcomes targets.

Thereafter, two working groups were established, one on development of well-being indicators and one on the indicator development. Criteria and principles used for the selection of indicators agreed in the expert group meetings are given in Box 5.

The establishment of working group on well-being measurement and indicators was necessary because it was felt that a significant amount of basic work on defining and measuring well-being was necessary. Therefore, the group met several times and has adopted the definition of well-being and has agreed on methods to measure different dimensions of well-being in the European context (12, 13).

Among the adopted Health 2020 indicators, Maternal Mortality Ratio and to some extent life satisfaction is related to SRH. The adopted Health 2020 monitoring framework is described in detail in the WHO recent publication on Health 2020 targets and indicators (14).

It is recommended that any potential new monitoring framework for SRH in Europe considers best practices and principles used for the development of Health 2020 monitoring framework in order to minimize the reporting burden on Member States and ensures the availability and comparability of data.

**Conclusion**

The focus of SRH information may have changed during the last 20 years globally, as well as in the WHO European Region, however, much more should be done to ensure that each country has at least basic information on the SRH and rights of the people. Without it – it will be difficult to make further strategic actions and improve health and well-being for all.

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