



Method Paper

The Pharma Sustainability Challenge for Women's Health Care

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Introduction

Increasing gender equality is a decisive factor for future economic and social development worldwide. Today however, gender inequality is still high and teenage pregnancy and maternal death are serious health concerns, especially in low- and middle-income countries (LMICs). Lack of access to modern family planning options deprives women of having the choice to pursue an education and decent work. Contraception is an essential component of family planning. This is not only central to women's health but also gives them greater autonomy over their lives which can have a positive ripple effect on families and communities. With still more than 200 million women having an unmet need for modern contraception in LMICs, according to data from the United Nations, the need to provide reproductive supplies and services will further increase.

As part of Bayer's Commitment to Sustainability, the Pharma Division's Sustainability Challenge is to provide 100 million women in low- and middle-income countries with access to family planning by 2030. Our progress is monitored with a Key Performance Indicator (KPI), measuring the **number of women in low- and middle-income countries (LMICs) who have their need for modern contraception satisfied due to interventions supported by Bayer.**

For this KPI we apply measuring methods which are close to the models used by USAID, an independent agency of the United States federal government that is primarily responsible for administering civilian foreign aid and development assistance. We defined a methodology based on available and reliable data and conservative assumptions.

This document aims to provide a general description of the methodology applied to calculate the respective KPI, as well as the different data sources used.

Definitions

In the following table, important terms are defined.

Key term	Definition
Satisfied need for modern contraception	Women are considered to have their need for modern contraception satisfied, if they desire either to have no (additional) children or to postpone the next child and are currently using a modern contraceptive method (WHO').
Modern contraceptive methods	Modern methods of contraception include female and male sterilization, intrauterine devices, implants, injectables, oral contraceptive pills, male and female condoms, vaginal barrier methods, lactational amenorrhea method, emergency contraception and other modern methods not reported separately.
Low- and middle-income countries (LMICs)	All countries included in the World Bank list ⁱⁱ of countries with low-income, lower middle-income, and upper middle-income economies as per 1 July 2019.

Interventions supported by Bayer	<p>Interventions supported by Bayer can be products supplied or partnerships</p> <ul style="list-style-type: none"> ○ Products supplied: all modern contraceptives supplied by Bayer in LMICs either by local sales or by direct sales or donations from PH Headquarters into global reproductive health programs. ○ Partnerships that lead to increased access to FP in LMICs by strengthening self-reliance and resilience of the local health systems and / or of the key players towards FP
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Methodology

For this challenge, the Pharma Women's Healthcare business unit and its products as well as countries classified as LMICs by the World Bank have been taken into scope.

The interventions from Bayer to satisfy women's need for modern contraception can be categorized into two channels:

- product supply with
 - local country contributions, which provide women with Bayer contraceptive products via local commercial channels in a country;
 - global headquarters contributions, which provide women with Bayer contraceptive products via global reproductive health programs, national governmental tender or multi-national distribution contracts with social marketing organizations as direct sales from Pharma Headquarters;
- Partnership channel, which refers to counts in women in LMIC using modern contraception as a result of family planning campaigns supported by Bayer via partnerships.

In the KPI derivation of 2019 and 2020, we have only considered data from the local country contributions and the global headquarters contributions (Product Supply). In 2021, Bayer established the Partnership channel and its contribution to the target is incorporated into the calculation of the PH Lead KPI.

Reach of Product supply

In the following, two process steps are described to calculate the number of women in LMICs who have their need for modern contraception satisfied due to interventions supported by Bayer in the local country contributions and the global headquarters contributions.



Step 1: Relevant sales data extraction and data cleaning

Purpose	To extract relevant sales data for the KPI and perform data cleaning.
Input	Sales data as number of products sold.
Assumption	Some of the receiving organizations for the contraceptive products sold via the global headquarters, have intermediary-warehouses in high-income countries. Although sales appear in these countries, the end destination of those products are LMICs. Therefore, distribution keys are used in the calculation of product distribution to LMICs.
Process	<p>Sales volumes of contraceptive products are extracted and classified as short-acting methods or long-acting methods for later calculation. Short-acting methods provided by Bayer are oral contraceptives and injections, while long-acting methods are intrauterine devices and implants.</p> <p>The sales are multiplied with the number of product units contained in one package to obtain the sales volumes in units per product category and country.</p> <p>After that, an LMICs filter is applied to the sales data to obtain sales in LMICs. Specially calculated distribution keys are used to obtain the LMICs reach for sales volumes of products distributed via global headquarters, due to the abovementioned assumption. The distribution keys are different for each contraceptive method and are calculated based on available shipment data received by the partners with warehouses in high-income countries. The distribution key will be updated each year to include more data and thus be more precise.</p>
Output	Product units (e.g., injections, pills for one cycle, implants) provided to women in LMICs.

Step 2: Determine women reached

Purpose	To determine the number of women reached.
Assumption	<p>Continuation rates: The long-acting contraceptive products applied before the reporting year still hold protection in the reporting year with a certain probability.</p> <p>Double Counting: Women use only one of the contraceptive methods at a time.</p>

Process	<p>As the offered protection time period of modern contraceptives may differ, they are classified into short- and long-acting methods and the following calculation of woman reached differs in these classes.</p> <p>For short-acting methods,</p> <ul style="list-style-type: none"> the number of women reached is obtained by dividing the number of provided units from step 1 by the corresponding CYP (Couple Years of Protection) conversion factors from USAID data. CYP conversion factors are calculated based on how a method is used, failure rates, wastage, and how many units of the method are typically needed to provide one year of contraceptive protection. <p>For long-acting methods,</p> <ul style="list-style-type: none"> the number of provided units of the reporting year and the previous years are multiplied with product-specific continuation rates extracted from Avenir Health, which indicate the probability that the product still holds protection in the reporting year. The number of women protected by the long-acting method in the reporting year is the weighted sum of women which have applied the method in the last years and in the reporting years.
Output	Number of women in LMIC who have their need for modern contraception satisfied due to Bayer's products.

Reach by Partnerships supported by Bayer



Our non-commercial partners must fulfill criteria of inclusion set by Bayer in order to be considered in the 100 million challenges. These include that the partner follows the same KPI definitions, and a due diligence process has been in place. All partners agree to provide Bayer full insights into the data trail, calculation rules and all control processes.

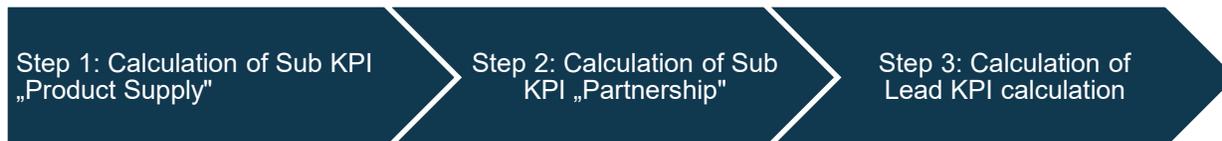
We now also reach women through digital campaigns. As part of this, we follow different measurement methods based on surveys and the application of conversion rates, which we derive from studies conducted.

In a first step the partner provides data of its reach. Thereafter, in a second step it is analyzed if normalizations are necessary such as an adjustment to mitigate overlaps between the channels.

From 2025 onwards, we also count women reached through the sales of Bayer Active Pharmaceutical Ingredient (API) used in modern contraception sold by other pharmaceutical companies in the target countries. Based on partner-submitted data on the number of

contraceptive units produced per product, the number of users reached is calculated. In parallel, a theoretical user reach is calculated from the quantity of API sold during the reporting period adjusted by a production-loss (yield) factor. For reporting purposes, the lower of these two values is adopted as a conservative estimate.

Total Lead KPI calculation



In order to determine the number of women in LMICs whose need for modern contraception is satisfied due to interventions supported by Bayer the Reach of Product Supply and the Reach by Partnerships are summed. The lead KPI calculation is done in a manner that mitigates the risk of overlap between Commercial and Partnership KPIs, in a way that people benefiting from both approaches are counted only once.

Data Sources

The following sources are used in our calculation process.

Source	Description
SAP	SAP is the Enterprise Resource Process System used by Bayer. Data is extracted for sales volumes in step 1.
World Bank	A list of low-income, middle-income and high-income countries as per 1 July 2019 is obtained from this international financial institution, which is applied in the filter in step 1.
United States Agency for International Development (USAID)	United States Agency for International Development is an independent agency of the United States federal government that is primarily responsible for administering civilian foreign aid and development assistance. Couple Years of Protection (CYP) factors in step 2 are extracted from this source.
Avenir Health *	Avenir Health is a global health organization. Continuation rates in step 2 are extracted from this source.

* Nonpublic data

ⁱ <https://www.who.int/data/gho/indicator-metadata-registry/imr-details/4988>

ⁱⁱ <https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups>