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# Enabling timely inclusion of pregnant and lactating women in trials

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## Sustainable strong continuous national clinical research ecosystems



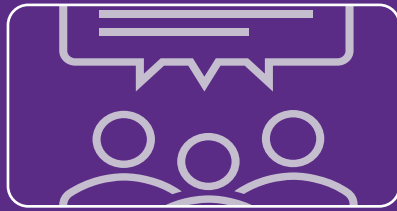
Continuous strengthening through monitoring, evaluation and learning

Source: Moorthy V, Abubakar I, Qadri F, Ogutu B, Zhang W, Reeder J, et al. The future of the global clinical trial ecosystem: a vision from the first WHO Global Clinical Trials Forum. *The Lancet*. 2024 Jan 13;403(10422):124–6 ([https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(23\)02798-8/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(23)02798-8/fulltext)).

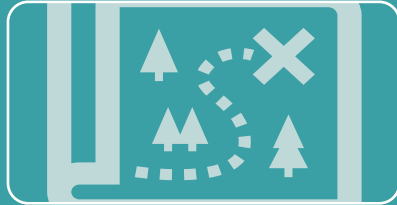


World Health  
Organization

# Policy Guidance for Better Inclusion of Underrepresented Populations in Clinical Trials and Research



Scoping review & Root Cause Analysis to (i) identify underrepresented populations across intervention types (vaccines, therapeutics, diagnostics) and (ii) analyze systemic, structural, and operational barriers, including regulatory, ethical, and logistical constraints.



Policy Mapping & Gap Analysis of existing national and international policies, guidance documents, and toolkits, to identify gaps and inconsistencies and develop principles and criteria for equitable access.



Drafting of policy guidance & implementation tools

**Objective:** identify barriers, assess policy frameworks, and deliver actionable tools to promote equity in research participation



# Driving this global shift demands coordinated action from multiple stakeholders

## Vaccination before and during pregnancy

### What you need to know

Some diseases are especially dangerous for you and your baby during pregnancy – when the immune system is generally weakened – or for your baby in its first weeks of life. Timely vaccination either before or during pregnancy is a safe and effective way to protect against the severe outcomes of several of these diseases.

**Vaccination before pregnancy**  
Measles, mumps and rubella

## MALARIA IN PREGNANCY

### Guidelines for measuring key monitoring and evaluation indicators

## Antiretrovirals in pregnancy research toolkit

Guidance and resources to accelerate the inclusion of pregnant and breastfeeding populations in research on treatment and prevention of HIV, viral hepatitis and STIs

This open access toolkit was developed by the WHO HIV, Hepatitis and STI Pregnancy and Breastfeeding Therapeutics Working Group (WHO PTWG)

## Tuberculosis & Pregnancy

### Building consensus on inclusion in research

MMV Medicines for Malaria Venture

## Roadmap for research on maternal and perinatal health in the context of epidemic threats

## Final Concept Paper

### E21: Inclusion of Pregnant and Breast-feeding Individuals in Clinical Trials

Dated 26 May 2023  
Endorsed by the Management Committee on 11 June 2023

- Type of harmonisation action proposed**  
A new Efficacy guideline to provide a globally accepted framework and best practices to enable inclusion and/or retention of pregnant and breast-feeding individuals in clinical trials (CTs).
- Background to the proposal and statement of the problem**  
There is an increasing acknowledgement of the need to generate data for medicinal products in pregnant and breast-feeding individuals. Whilst it is recognized that CTs will usually not be large enough to detect increased risks of rare adverse pregnancy outcomes, it is also recognized that limited clinical information could burden the Health Care Professionals (HCPs) with the task of evaluating the unknown risk and/or benefit of medicinal product use during pregnancy. Inclusion of pregnant and breast-feeding individuals in CTs with appropriate safeguards and informed consent can help to identify pregnancy related changes in pharmacokinetics and/or efficacy needed to provide an appropriate benefit-risk evaluation.

Pregnant individuals are frequently excluded from CTs due to potential safety concerns, and those who become pregnant during a CT are often discontinued from further participation, although they and their child may be followed for safety data. Therapies frequently taken during pregnancy include, amongst others, antimicrobials, anti-hypertensives, antidepressants, anticonvulsants, migraine, diabetes and respiratory medicines, and vaccines<sup>1</sup>. Medicinal product use during pregnancy and breast-feeding may be necessary for disease prevention, and for the treatment of both acute and chronic disorders. This may include their use before pregnancy is known, and prophylaxis or treatments for conditions that can be pregnancy-specific, worsened by pregnancy, or require continued treatment during pregnancy or breast-feeding. However, lack of data on use of medicinal products during pregnancy can lead to a choice of no treatment or treatment discontinuation for pregnant individuals even when the medication may otherwise be indicated. As a result, risk of morbidity and mortality from the

## Antimalarial drugs for pregnant women

Problem statement

- In 2022, 11.12 million people in high-burden countries in the WHO African Region (1.6 million (14%) pregnant women) were affected by malaria.
- Pregnant women are among the most at-risk of adverse malaria complications, as their immune system is compromised and they are often unable to seek timely and effective treatment.
- Historically, pregnant women have been systematically excluded from drug development programmes, meaning that at least 10% of women currently receive treatments instead they often receive older drugs.

Let major update October 2024

Real MMV's no-death burden on preventing malaria in pregnancy

## MEDICINES FOR PREGNANCY-SPECIFIC CONDITIONS

RESEARCH, DEVELOPMENT AND MARKET ANALYSIS



# Launch of the WHO Task Force for the Timely Inclusion of Pregnant and Lactating Women in Clinical Trials

**Task Force Facilitators:** Martina Penazzato (SCI/RFH) and Mariana Widmer (SCI/HRP)

**Task Force Members:**

**RFH:** LITTLER, Katherine; SATHIYAMOORTHY, Vaseeharan

**HRP:** CHOU, Doris

**GTB:** MIRZAYEV, Fuad; VERKUIJL, Sabine; RUSEN, Ira David ;

**HHS:** RENAUD, Françoise; TOWNSEND, Claire;

**IVB:** MEHRING-LE DOARE, Kirsty Elaine Kay; BENASSI, Virginia;

**MCA:** DE COSTA, Ayesha; GOGA, Ameena; PORTELA, Anayda Gerarda;

**REG:** AZATYAN, Samvel; LAUMONIER, Marion; LAMPRIANOU, Smaragda;

**AMR:** GIGANTE, Valeria;

**NTD:** SOLOMON, Anthony;

**Malaria:** OLUMESE, Peter Ehizibue;

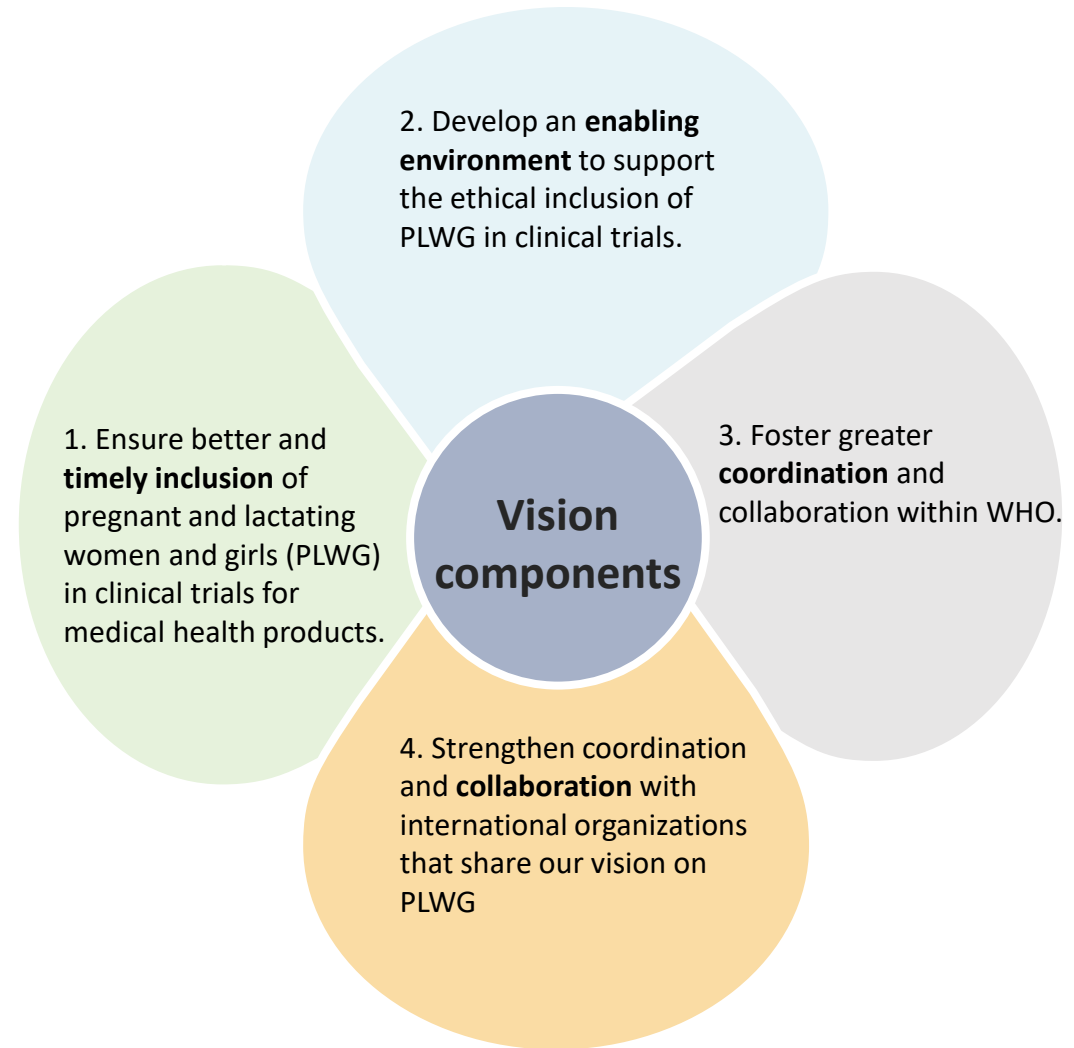
**Brain Health:** CATALDI, Rodrigo;

**RO:** Saenz, Dr. Carla (PAHO); REINAP, Marge (EURO)



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**Our Vision:** *To achieve by 2030 timely and ethical inclusion of pregnant and lactating women and girls in clinical trials for medical health products, by creating an enabling environment and fostering collaboration with international partners.*





# Priority activities for 2025

What is the problem?

Call to action

Toolkit

Language harmonization



# 1. What is the problem? Size and implications

- Leveraging ICTRP and R&D Observatory with current filters
- Develop an interface to become a tool for tracking and accountability
- Publication of overall snapshot
- Gather relevant systematic reviews and papers on the topic



*Technical advocacy:  
reflections on the  
implications of routine  
exclusion of PLWG in  
clinical trials*

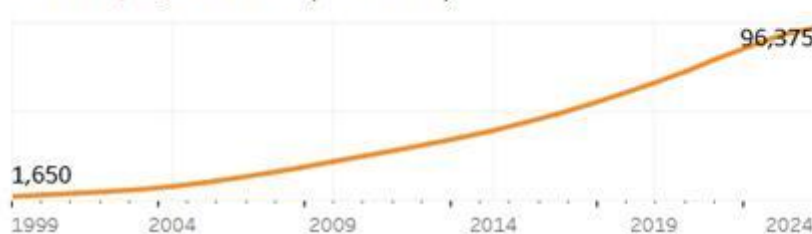
Interventional vs observational trials - untick (All) then tick desired box to select

- (All)
- CLI
- OBS
- OTH or UNK

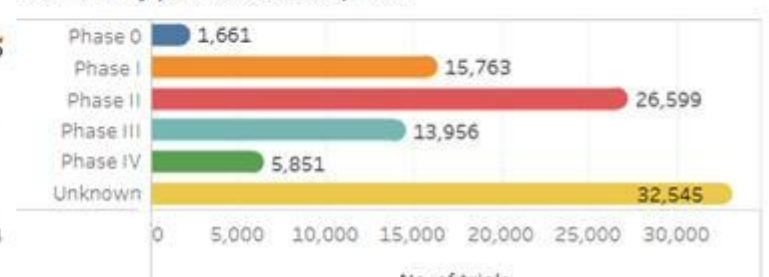
Filter trials in these categories

- All
- Neglected tropical diseases
- R&D Blueprint pathogens
- Trials including pregnant women or pregnancy-related trials

A. Trials per year- World (1999-2024)



B. Trials by phase of development



# 3. Generic research toolkit initial draft proposal

Guidance and resources to accelerate the inclusion of pregnant and breastfeeding populations in research.

- Design the structure
- Review HIV toolkit and select what to retain as generic content
- Discuss with Web-developer
- Signpost existing disease specific toolkits (i.e. HIV, TB, IVB)
- Initiate thematic specific modules (i.e. Malaria, antibiotics, maternal products, NTD, NCD, etc.)

## Toolkit sections

Ethical considerations
Community engagement and communication
Pharmacokinetics and dosing
Clinical trials and observational studies
Surveillance studies and registries
Outcome measures
Key background references
Regulatory

## Introduction

Pregnant and breastfeeding women have traditionally been excluded from clinical trials of new drugs, including antiretrovirals for HIV treatment and prevention and medicines for treating hepatitis and sexually transmitted infections (STIs). This has led to a lack of safety data and long delays in access to medicines for use in these populations.

Over the past few years multiple stakeholder groups have expressed concern about the exclusion of these populations from clinical studies and have voiced support for an inclusive and equitable approach. The key issues are discussed in detail in a [HIV research review](#) and approaches to enhance and accelerate investigation of new HIV drugs in pregnancy.

Building on the work of the [United States Task Force on Research Specific to Pregnant Women and Lactating Women \(PRLM\)](#) and the [Pregnancy and HIV/AIDS: Making Equitable Study \(PHASES\)](#) project, WHO and IMPACT convened 2 workshops in 2020 and 2021. These resulted in the publication of a [guidance document](#) and development of specific guidance on the timing and design of studies of new drugs for treating and preventing HIV and other infections in pregnant women. A new framework [accelerates the inclusion of pregnant and breastfeeding women in pre-licensure clinical trials](#) was developed with the goal of having pharmacokinetic (PK) and preliminary safety data on all new HIV agents in pregnancy available at the time of drug approval.

To facilitate a shift in practice, several strategic approaches have been put forward, including the idea of a toolkit for research in pregnancy and lactation. The purpose of this living toolkit is to support researchers, programme implementers and other stakeholders by providing an inventory of materials to enable consistent collection of data on pregnant and breastfeeding women within clinical studies and other research settings.

In this toolkit, although the terms 'woman' and 'mother' are used, we recognise that some people who experience pregnancy do not identify as women or mothers. This toolkit is meant to be inclusive of all who experience pregnancy, regardless of their gender identity.

While most documents provided here come from the HIV prevention and treatment fields, many will have value for those engaged in research in other disease areas. The intention is to expand the toolkit to encompass additional study materials and resources from the STI and viral hepatitis fields. New materials will be added as they become available.

HIV & STI

TB

Malaria

Maternal products

Antibiotics

NCD

IVB

NTD

The background of the slide is a watercolor-style wash. It features a gradient of blue colors, ranging from a deep, dark blue on the left to a very light, almost white blue on the right. The edges of the colors are soft and blended, creating a textured, artistic effect.

# **Research toolkit for use of vaccines in pregnant and lactating women**

Kirsty Le Doare

# Purpose of the toolkit

- Responds to the global call for equitable inclusion of pregnant & lactating women in vaccine R&D (WHA77, 2024).
- Addresses historical exclusion specifically from vaccine trials → data gaps, delayed access.
- Supports ethical, safe, and timely evaluation of vaccines in pregnancy & lactation.
- Aligns with WHO, PREVENT, CIOMS, and SPEAC frameworks
- Highlights key areas that are distinct from therapeutic research



Exclusion

Gaps

Toolkit

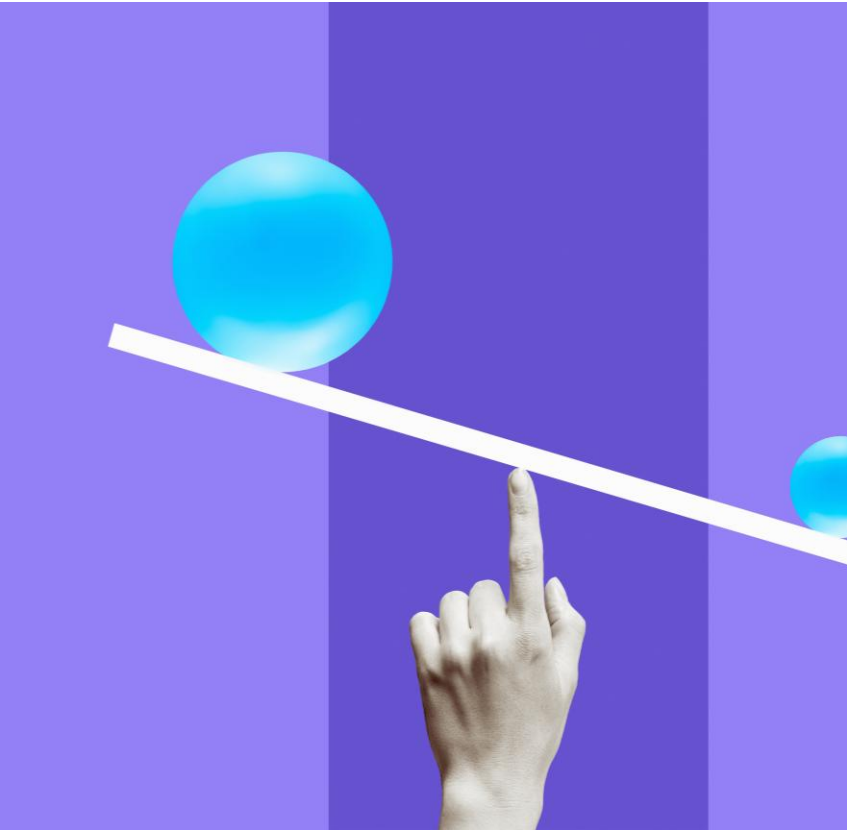
Equity

# Objectives

Provide rationale & ethics for inclusion in research.

Repository of tools for safe and systematic trial design – including key guidance documents for vaccines in pipeline development

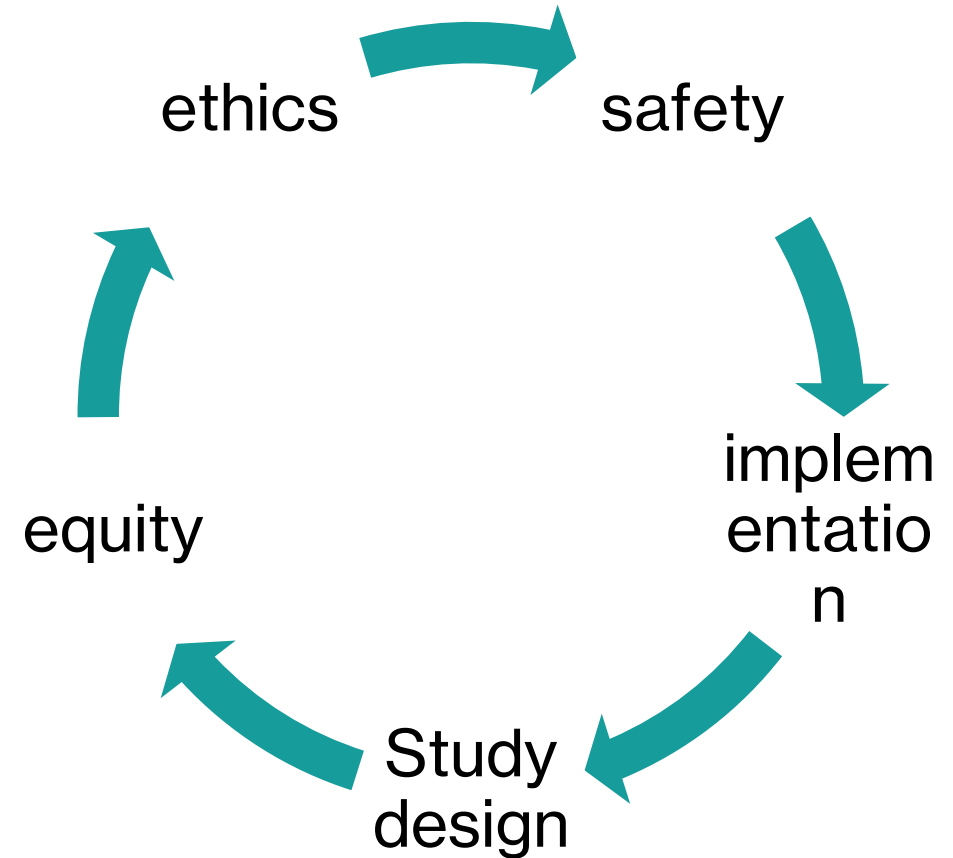
Enable **standardised data collection** on pregnancy & lactation exposures and outcomes.



# Key Content

Toolkit covers:

- Ethical considerations → higher risk threshold in pregnancy.
- Pathogen impact (e.g., malaria, TB).
- Vaccine platform safety (protein subunit, mRNA, vectors, etc.).
- Implementation research → integration into antenatal care, pharmacovigilance.
- Study design → adaptive trials, incidental pregnancy management, informed consent.
- Separation of pregnancy and lactation



# Impact and Use

- Helps **sponsors, regulators, clinicians, policymakers** include pregnant & lactating women in vaccine trials.
- Accelerates access to maternal & infant protection, especially in LMICs.
- Living document: updated as new evidence emerges.



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# In conclusion....

We have a window of opportunity



Many seeds have already been planted



Time to join forces and take concrete steps



.....To move from theory to action

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# Thank you

Mariana Widmer  
Vasee Moorthy  
Katherine Littler  
Kirsty Mehring-Le Doare  
Francoise Renaud  
Lampriamou Smaragda

# Guidance for best practices for clinical trials

Document link:

