

Trends in CS rates: How do we ensure appropriate use?

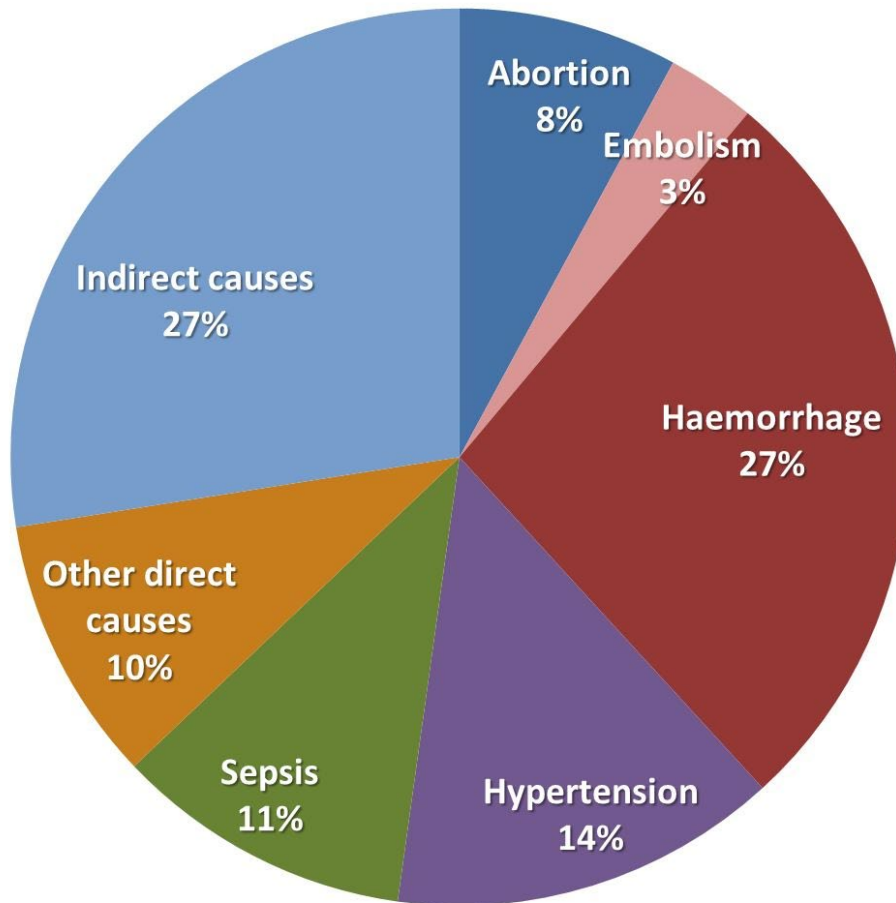
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Global causes of maternal death – 2003-2009



Global causes of maternal death: a WHO systematic analysis, 2014.



Source: Say L et al. Global causes of maternal death: a WHO systematic analysis. Lancet Glob Health. 2014 Jun;2(6):e323-33.

Monitoring global and regional caesarean rate WHO estimates

WHO develops global and regional caesarean rate estimates to monitor improvements and changes towards global health targets

1990-2018



1990-2014



1990-2005



Sources:

- Betrán AP et al. Rates of caesarean section: analysis of global, regional and national estimates. Paediatr Perinat Epidemiol. 2007 Mar;21(2):98-113.
- Betrán AP et al. The Increasing Trend in Caesarean Section Rates: Global, Regional and National Estimates: 1990-2014. PLoS One. 2016 Feb 5;11(2):e0148343.
- Betrán AP et al. Trends and projections of caesarean section rates: global and regional estimates. BMJ Glob Health. 2021 Jun;6(6):e005671.

Caesarean section in 2018

lowest and highest rates

The five countries with the lowest CS rate

Chad (1.4%)

Niger (1.4%)

Ethiopia (1.9%)

Madagascar (2%)

Cameroon (2.4%)

The five countries with the highest CS rate

Dominican Republic (58.1%)

Brazil (55.7%)

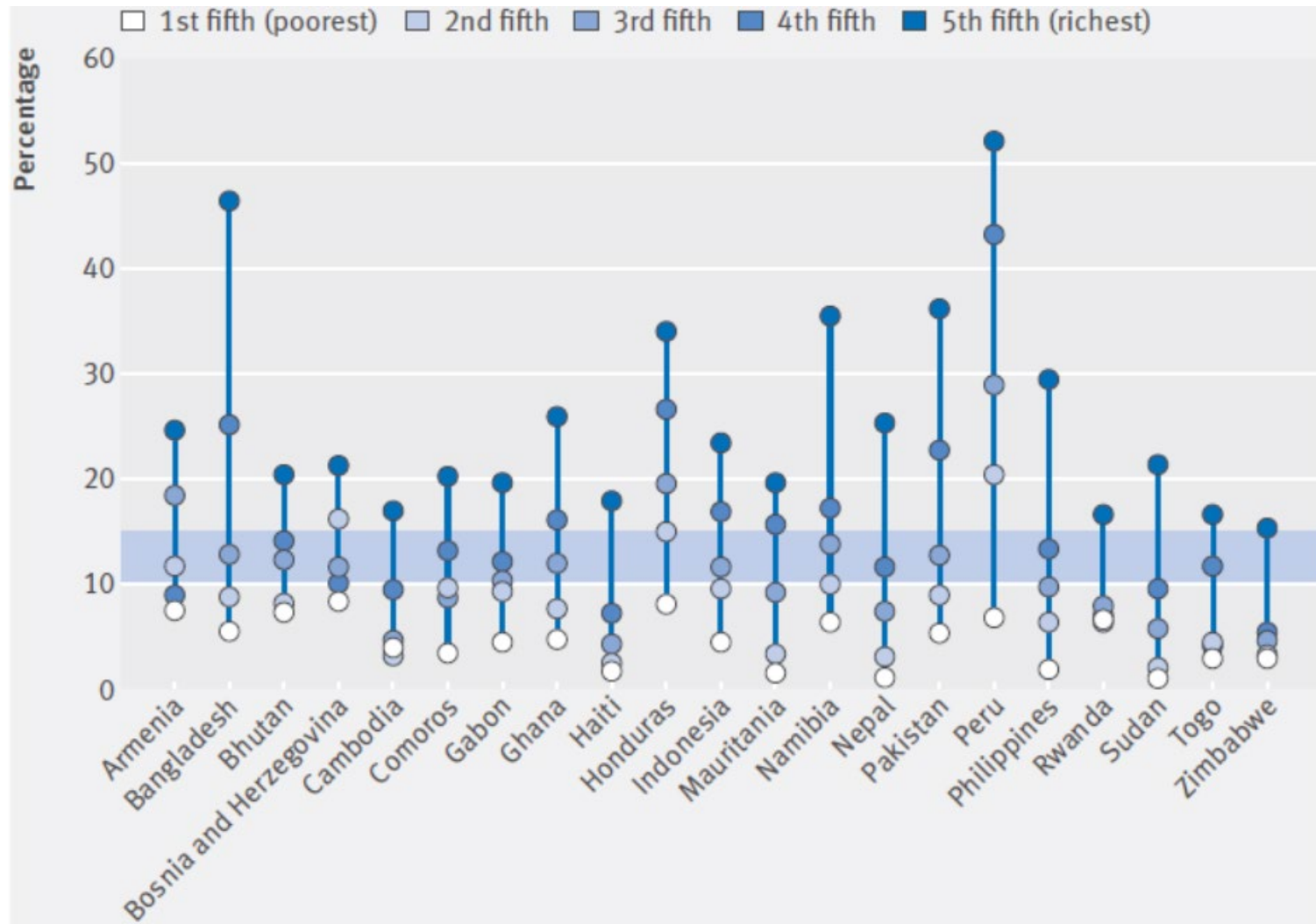
Cyprus (55.3%)

Egypt (51.8%)

Turkey (50.8%)

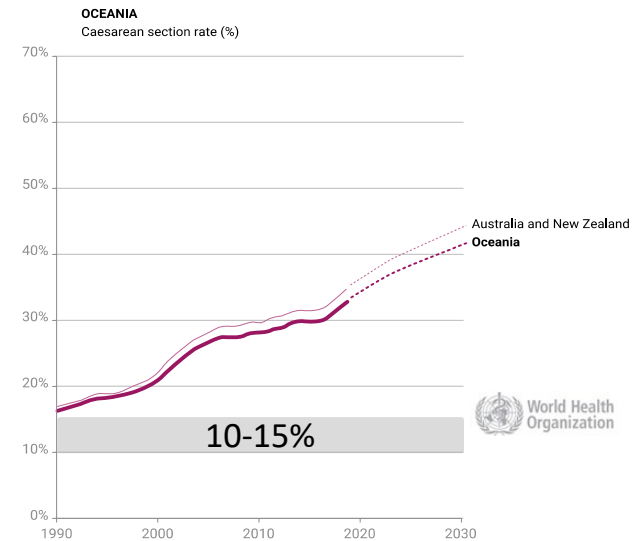
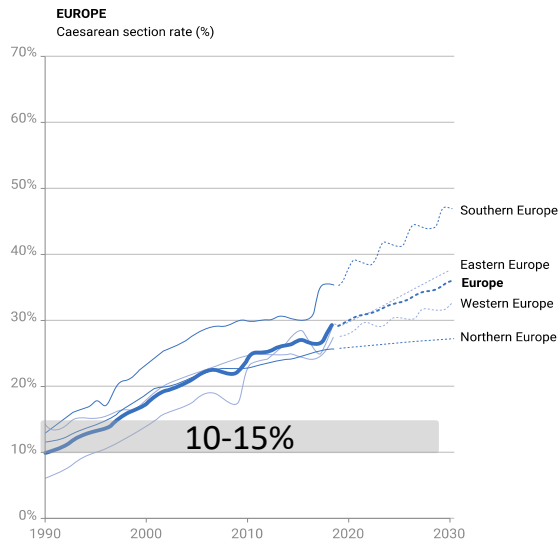
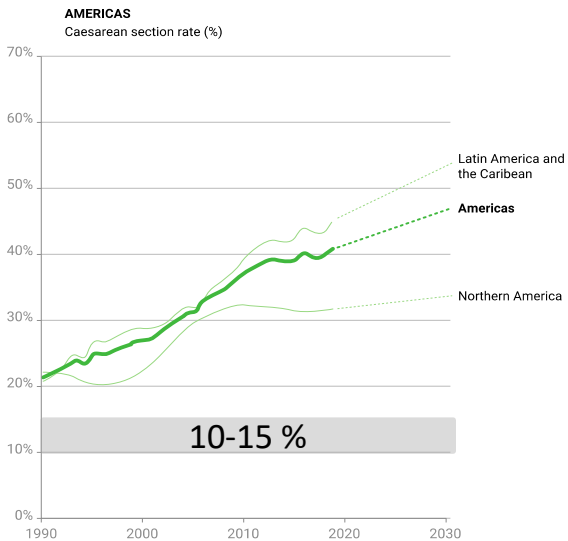
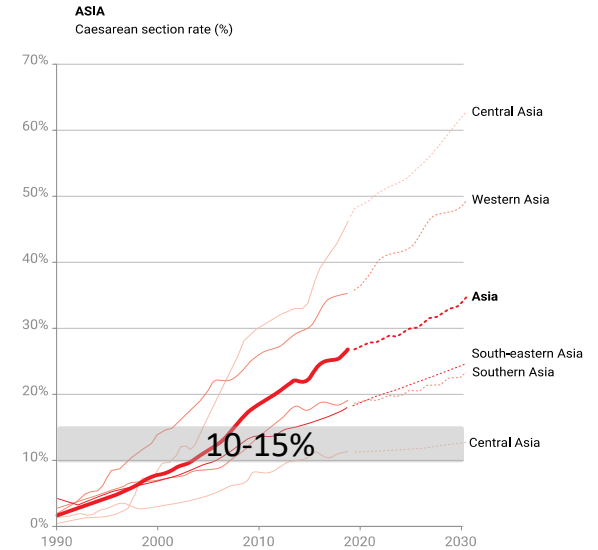
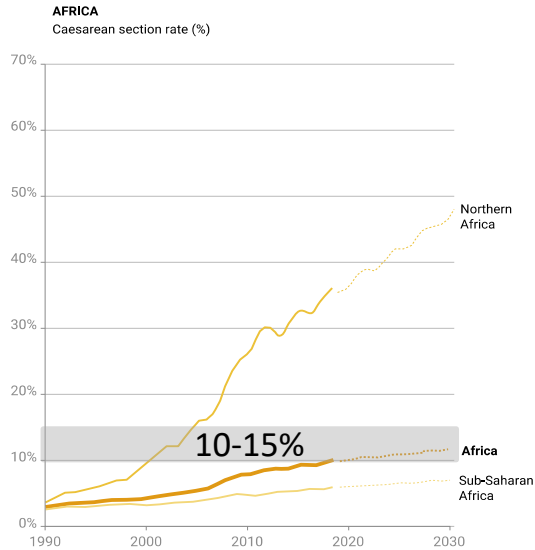
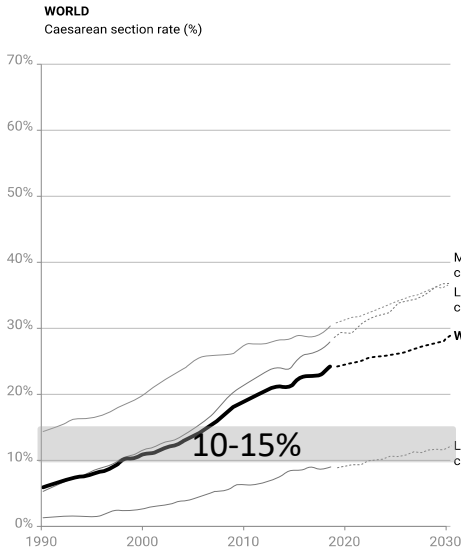
Source: Betrán et al. Trends and projections of caesarean section rates: global and regional estimates. BMJ Glob Health. 2021.

Caesarean section rates by economic status



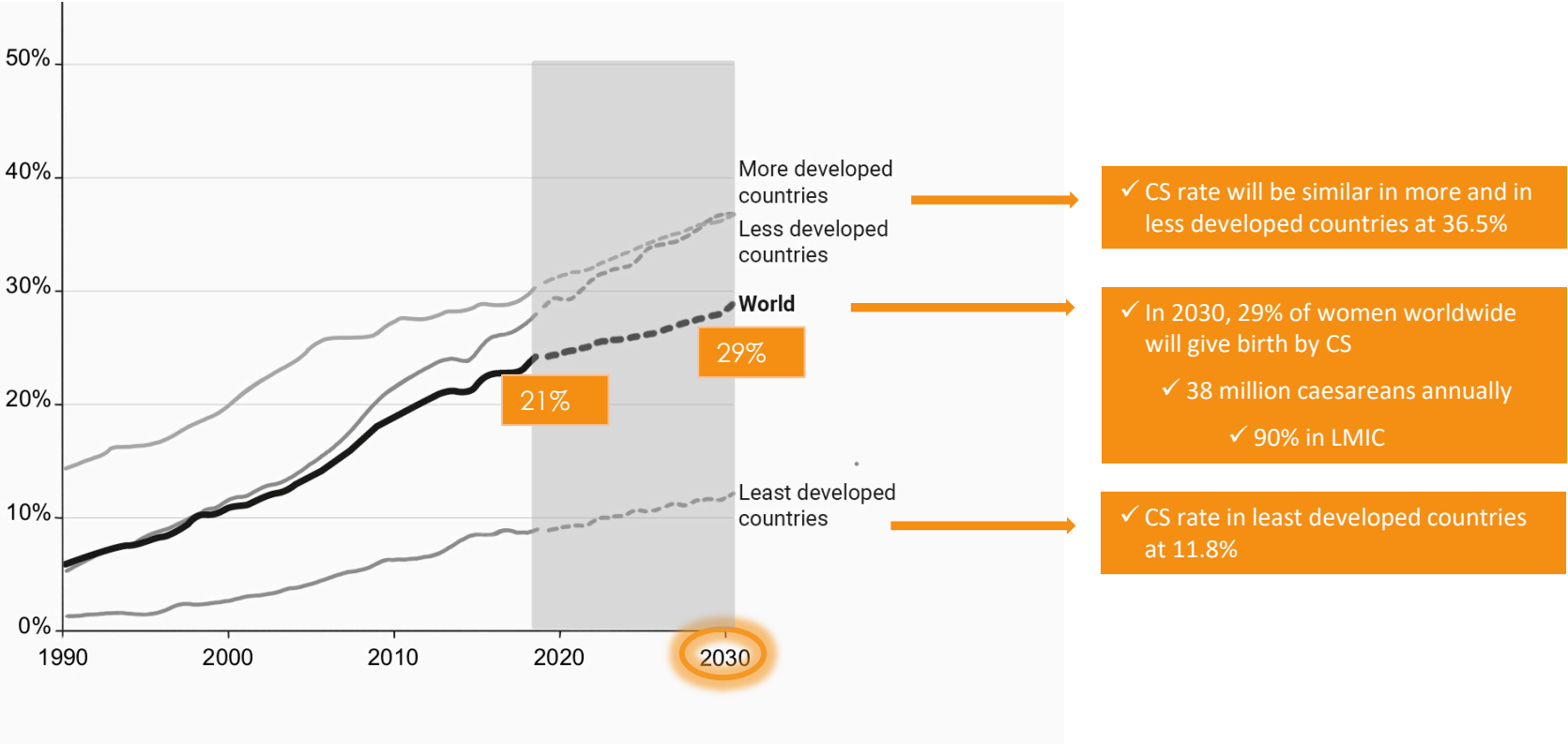
Source:Boatin AA et al. Within country inequalities in caesarean section rates: observational study of 72 low and middle-income countries. BMJ. 2018 Jan 24;360:k55.

Trends from 1990-2018 and projections to 2030 in caesarean rates

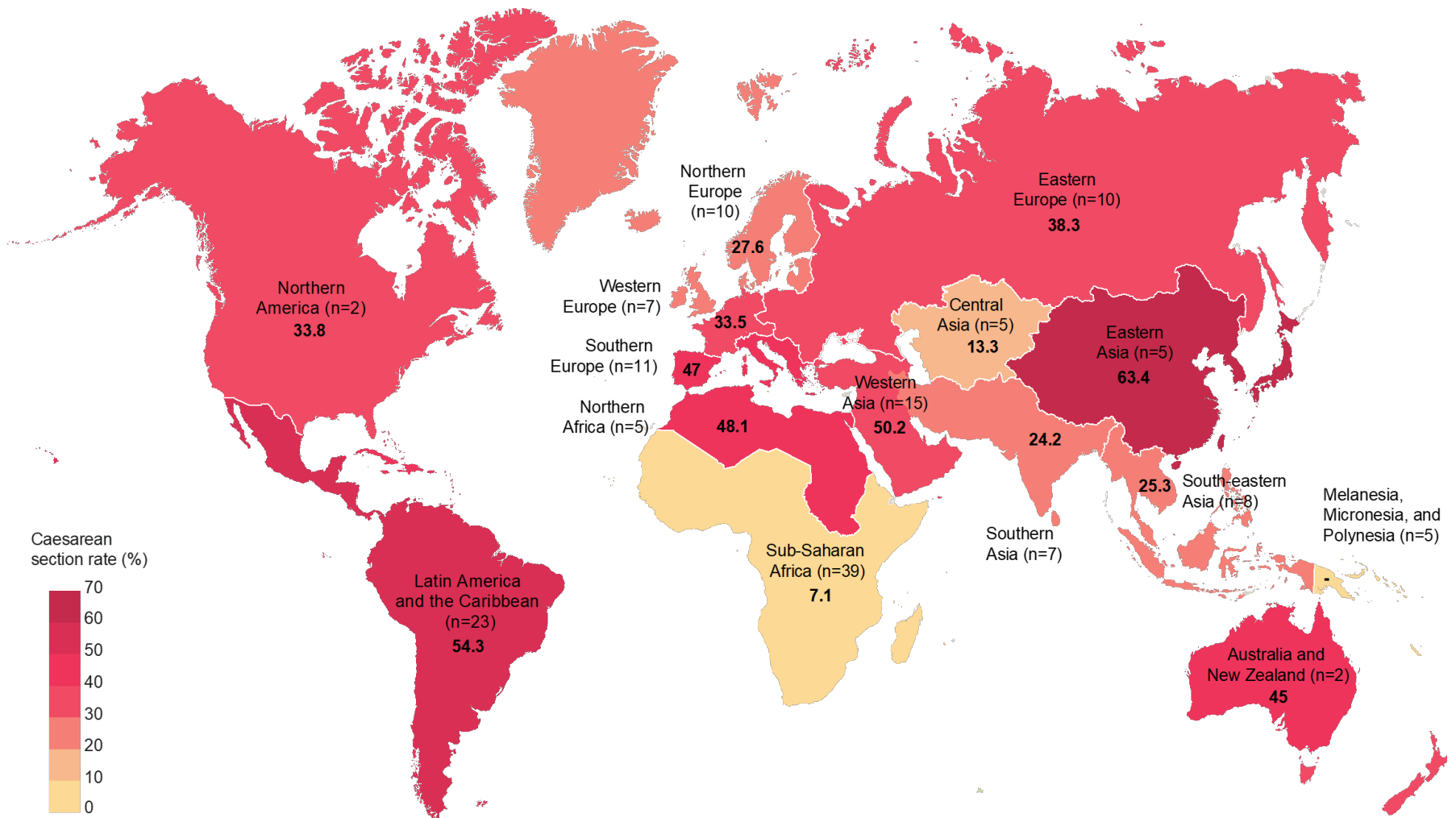


Global caesarean rates in 2030 - projections

WORLD
Caesarean section rate (%)

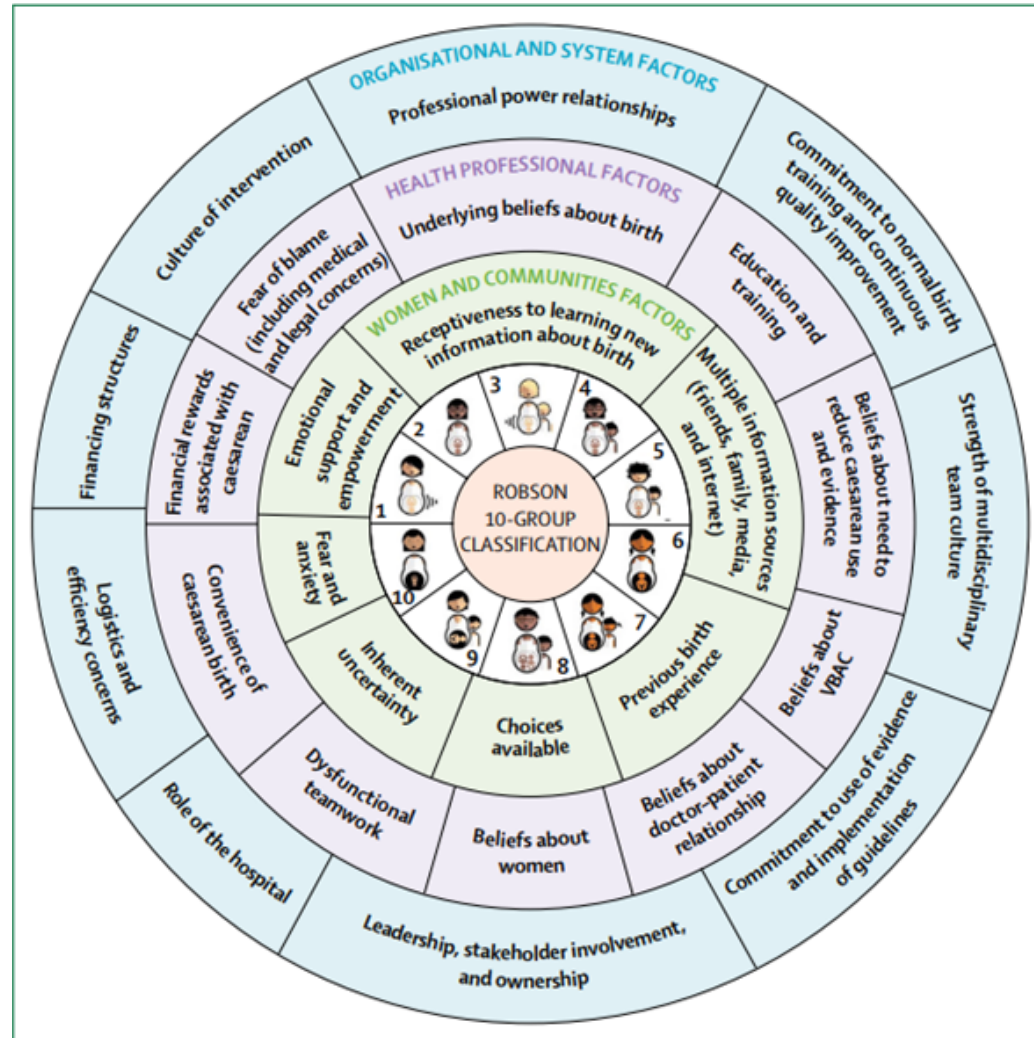


Projected caesarean section rates in 2030



Source: Betrán et al. Trends and projections of caesarean section rates: global and regional estimates. BMJ Glob Health. 2021.

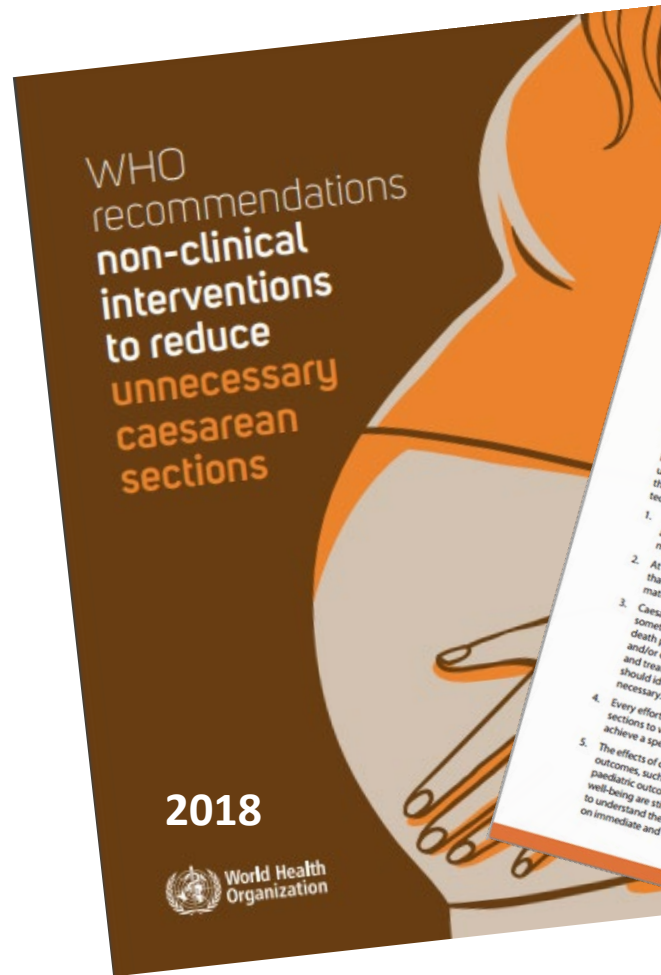
What affects the frequency of CS?



Source: Betrán AP et al. Interventions to reduce unnecessary caesarean sections in healthy women and babies. Lancet. 2018 Oct 13;392(10155):1358-1368.

What is the “optimal” rate of caesarean section at population level?

- ✓ **WHO** does not promote any specific rate to be achieved at population level → provide CS to all women in need rather than striving to achieve a specific rate.
- ✓ **WHO** recommends the Robson classification system



Sources:

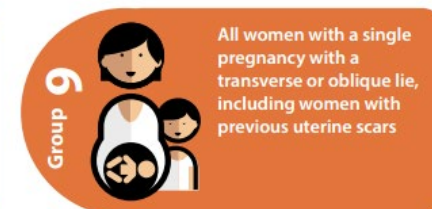
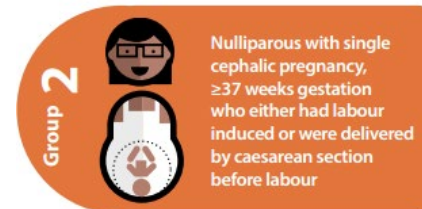
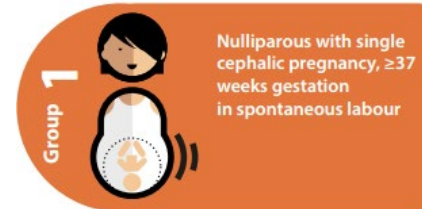
WHO recommendations non-clinical interventions to reduce unnecessary caesarean sections. Geneva: World Health Organization; 2018.

WHO Statement on Caesarean Section Rates. WHO/RHR/15.02. World Health Organization; 2015.

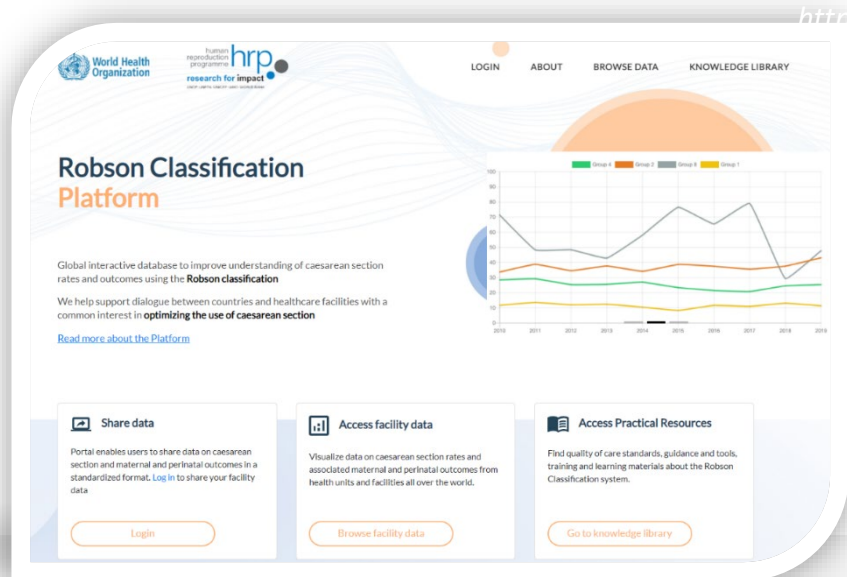
Robson classification system

The use of the Robson Classification will help health care facilities to:

- Identify and analyze the groups of women which contribute most and least to overall CS rates.
- Compare practice in these groups of women with other units who have more desirable results and consider changes in practice.
- Assess the effectiveness of strategies or interventions targeted at optimizing the use of CS.
- Assess the quality of care and of clinical management practices by analyzing outcomes by groups of women.
- Assess the quality of the data collected and raise staff awareness about the importance of this data, interpretation and use.



WHO Interactive Robson Classification Platform



The mission

Promote quality of care during childbirth by improving understanding of the use of caesarean section

The vision

- ✓ Facilitate **global sharing** of obstetric and perinatal data according to the Robson classification,
- ✓ Help shared-learning and promote **data-driven clinical practice** discussions between health providers across the world,
- ✓ Foster **understanding of CS rates**, and CS rates related outcomes and processes.

<https://robson-classification-platform.srhr.org/>

Appropriate use of caesarean through quality decision-making by women and providers: QUALI-DEC (2020-2025)



- ✓ **Objective:** design and evaluate a strategy to implement non-clinical interventions to reduce unnecessary caesareans, improve decision-making, empowerment and satisfaction
- ✓ **Countries:** Argentina, Burkina Faso, Thailand and Viet Nam
- ✓ **Study design:** A pragmatic hybrid effectiveness-implementation Type III mixed method
- ✓ **Progress:**
 - ✓ Baseline data collection
 - ✓ Intervention designed and tailored
 - ✓ Training for intervention conducted

Reducing unnecessary caesarean sections: scoping review of financial and regulatory interventions

Objectives:

- Identify and map available evidence on financial and legislative interventions intended to reduce unnecessary CS
- Synthesize the effectiveness and safety of financial and legislative interventions intended to reduce unnecessary CS
- Summarize evidence on lessons learnt to inform policy decisions and future research

Review
conducted
in 2020



Source: Opiyo N et al. Young C. Reducing unnecessary caesarean sections: scoping review of financial and regulatory interventions. Reprod Health. 2020 Aug 31;17(1):133.

Implications of findings

- Future research on insurance schemes should include details regarding maternal health benefit package such as co-payments
 - Aid comparison of different schemes
 - Make it possible to compare whether benefit package influences CS use
- Most studies involved evaluations were conducted a few years after introduction of insurance schemes
 - Longer-term evaluations beneficial, given concerns regarding sustainability of schemes

Implications of findings

- Review identified inconsistencies in the way that studies measured and reported caesarean sections
 - A unified system for classifying and reporting CSs would be useful to aid synthesis and comparison of findings across studies
- Robust health information system for routine data collection needed to monitor the impact of financial and legislative interventions on CSs

Implication of findings

- Overall, evidence on effects of financial and legislative interventions on CS inconclusive
 - Small number of studies
 - Study limitations
 - Conflicting findings among studies
- Further primary studies needed on financial and legislative interventions
 - Opportunities should be sought to use larger sample-sizes (e.g. cross-country analyses using pooled DHS data)

Key take away messages

- ✓ **PPH is the leading maternal cause of death**
- ✓ **It is projected that in 2030 29% of women will delivery via CS**
- ✓ **Frequency of CS is multidimensional:**
 - Women and communities
 - Health care providers
 - Health care organization
- ✓ **Tools are available to determine if a woman need a CS**
- ✓ **Research is on-going to better understand how to avert unnecessary CSs**

A previous CS is a significant risk factor for PPH and other complications thus preventing the first CS is an important step in reducing CS rates and PPH related to CS

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