

Quality of medicines for life-threatening pregnancy complications

in low- and middle-income countries: A systematic review

An estimated

295,000 women

die every year due to complications of pregnancy and childbirth



Most of these deaths occur in low- and middle-income countries (LMIC)

The main causes of maternal death are

27% Postpartum haemorrhage (PPH) Postpartum

14% Pre-eclampsia/ eclampsia (PE/E)

11% Sepsis due to direct maternal infections cause

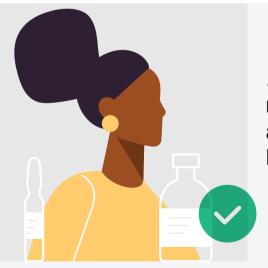






It is estimated that 1 in 10 medicines in LMIC are substandard and falsified medicines

Adequate and timely use of good quality, safe, effective, and affordable medicines is essential to ...



...reduce maternal mortality and to achieve universal health coverage



Objective:

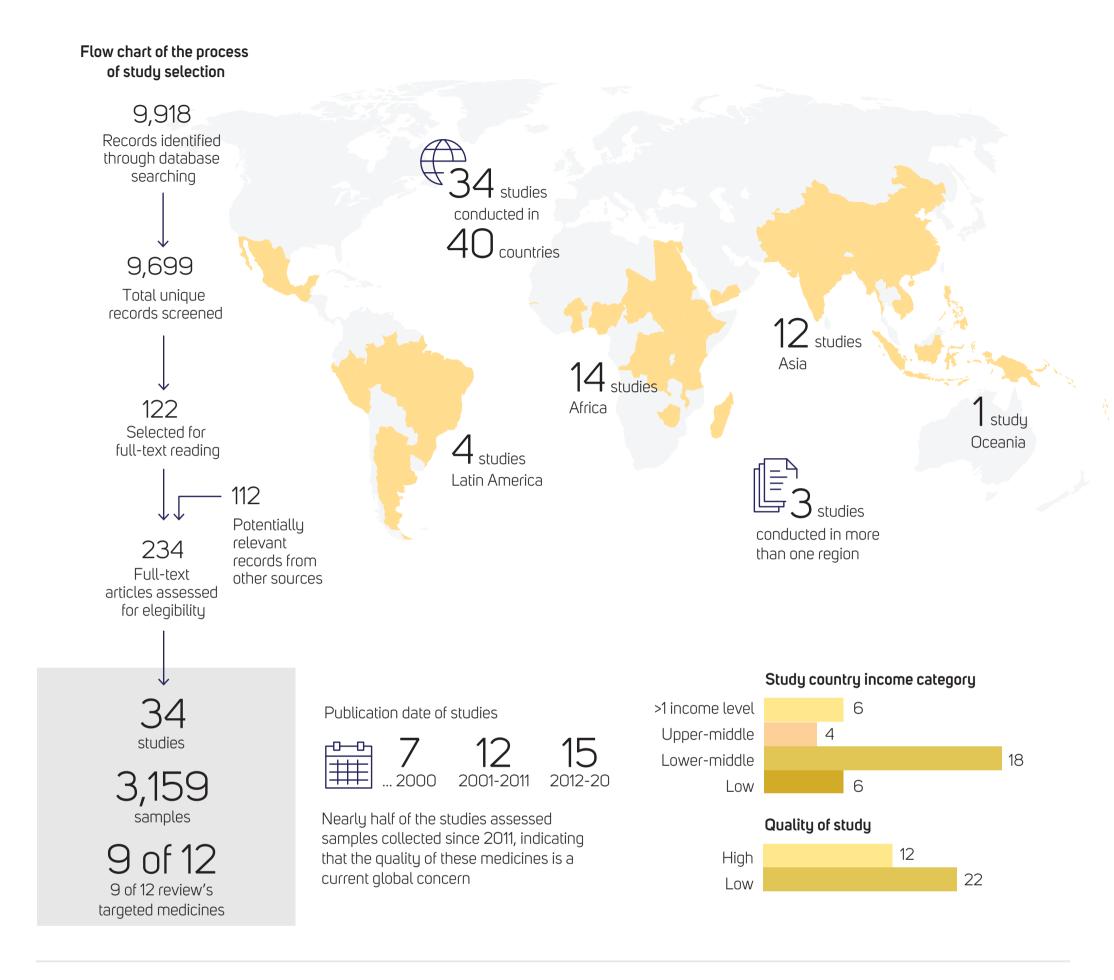
to identify, critically appraise and synthesize findings of studies on quality of selected medicines (uterotonics, tranexamic acid, magnesium sulfate, and injectable antibiotics) available in LMIC.

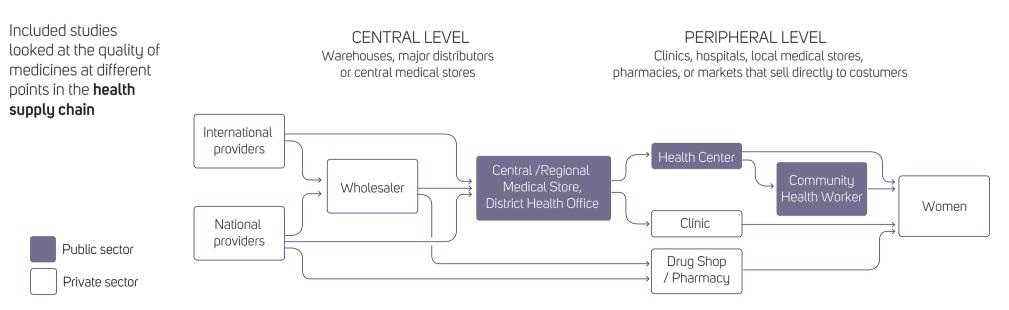




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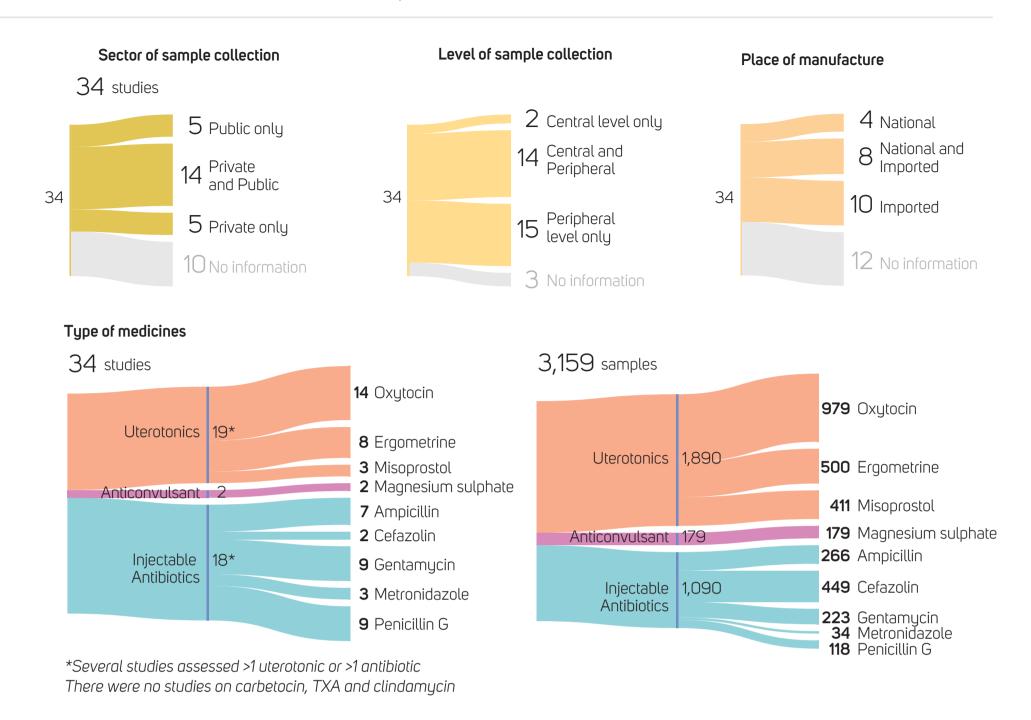
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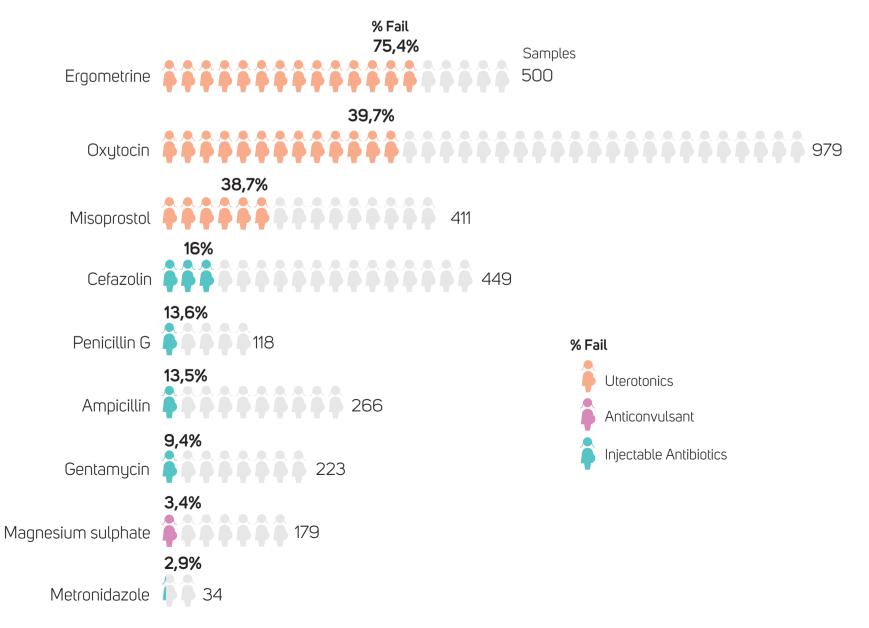


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Prevalence of samples that failed quality tests



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Prevalence of samples that failed quality tests

Central vs. peripheral level Public vs. private sector Oxytocin Uterotonics Oxytocin Uterotonics 45% Public 34.3% 21.9% Public Central 33.9% Central 54.3% 48.7% 43.8% Private Private Peripheral 52.7% Peripheral Ergometrine Ergometrine Public 70.9% 64.7% Central 73.6% 76.1% Private Peripheral Misoprostol Misoprostol Public 38.2% 18.2% Central Private Peripheral Magnesium sulphate Magnesium sulphate Anticonvulsant* Anticonvulsant* Public 8.3% Central 6.7% Public 8.3% Central 6.7% Private 0.8% Private 0.8% Peripheral 2.7% Peripheral 2.7% * the only anticonvulsant included was MgSo4 Injectable antibiotics Ampicillin Injectable antibiotics Ampicillin 8.8% 8.1% Public 11.9% Public 16.7% Central Central 20.3% Private 21.5% 14.7% 17.7% Private Peripheral Peripheral Gentamycin Gentamycin 14.3% Public 19.4% Central Private 17.9% 5.6% Peripheral Penicillin G Penicillin G Public 2.3% Central 0% Private 20% 20.6% Peripheral Oxytocin was the drug • **Ergometrine** was the Misoprostol is a drug Anticonvulsants had All antibiotics showed with the largest number uterotonic with the stable at room tempeone of the lowest similar prevalence of of studies and samples highest prevalence of rature. Nevertheless, a prevalence of failed failed samples, except failed samples high number of samsamples for metronidazole ples were found to be

of low quality



Conclusion:

There is a widespread problem with the quality of medicines used in LMIC to manage postpartum haemorrhage, pre-eclampsia/eclampsia and infections. This could be a contributing factor to the persistence of severe maternal morbidity and mortality in these settings despite affordable and effective treatments.



