Questioning the indicators of need for obstetric care

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Abstract The difficulties in measuring maternal mortality have led to a shift in emphasis from indicators of health to indicators of use of health care services. Furthermore, the recognition that some women need specialist obstetric care to prevent maternal death has led to the search for indicators measuring the met need for obstetric care. Although intuitively appealing, the conceptualization and definition of the need for obstetric care is far from straightforward, and there is relatively little experience so far in the use and interpretation of indicators of service use or need for obstetric care. In this paper we review indicators of service use and need for obstetric care, and briefly discuss data collection issues.

Keywords Health care surveys; Maternal health services/statistics; Health services needs and demand/statistics; Health services/utilization; Data collection/methods (*source: MeSH, NLM*).

Mots clés Enquête système de santé; Service santé maternelle/statistique; Besoins et demande services santé/statistique; Services santé/utilisation; Collecte données/méthodes (*source: MeSH, INSERM*).

Palabras clave Encuestas de atención de la salud; Servicios de salud materna/estadística; Necesidades y demanda de servicios de salud/estadística; Servicios de salud/utilización; Recolección de datos/métodos (*fuente: DeCS, BIREME*).

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Introduction

The realization that maternal mortality is costly to measure and does not yield the information needed to plan and monitor safe motherhood activities has led to a search for appropriate process indicators. Ideally, these indicators should measure access to and use of those services most likely to reduce maternal mortality.

Indicators of use of safe motherhood services include the proportion of births attended by skilled health personnel, and the proportion of births that are by caesarean section (*1*). The recognition that some women need specialist obstetric care to prevent maternal death has led to the development of indicators of the met need for obstetric care (*2*–*7*). Such indicators aim to identify the users of obstetric services among the pregnant women thought to require such services by virtue of their having a maternal complication. This assumes their needs can be met by the stated obstetric service. Although intuitively appealing, conceptualizing and defining the need for obstetric care is far from straightforward, and there is relatively little experience so far in the use and interpretation of indicators of service use or need for obstetric care. This paper reviews indicators of service use and need for obstetric care, and discusses data collection issues.

Review of indicators

Table 1 lists some indicators of use of delivery-care services (*1*–*18*). We distinguish between indicators measuring service use for all women and those measuring service use in a subgroup of women with specific needs (i.e. met need), and discuss these in the context of national-level monitoring and evaluation. We do not discuss indicators measuring the provision or the quality of obstetric services, although they are clearly an integral part of any evaluation of national safe motherhood programmes (*3*, *19*).

Indicators measuring service use

Proportion of births attended by skilled health personnel

The assumption that all women require access to skilled care has led to an indicator that measures the proportion of births attended by skilled health personnel (*1*). The term "skilled health personnel" refers to persons with midwifery skills who can manage normal deliveries and diagnose and treat, or refer, obstetric complications, excluding trained and untrained traditional birth attendants (*1*).

While this indicator is a useful reflection of international trends in access to delivery care, it fails to inform health planners at national or subnational level as to which particular components of their health system need strengthening. It is uncertain whether relatively small changes in this indicator are sensitive markers for changes in maternal mortality. If delivery care is broken down by the provider and place of delivery, on the other hand, a much clearer understanding of the configuration of delivery services can be obtained (*8*, *19*). In Indonesia, for example, a dramatic increase in skilled attendance at home birth, without a concomitant rise in health facility births, has confirmed the success of the home-based

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Table 1. Indicators measuring the use of and need for safe motherhood services

	Numerator	Denominator	Reference level	Source
Indicators of service use				
Proportion of births attended by skilled health personnel	Births attended by skilled health personnel	All births in target population	100%	*1, 2*
Proportion of births attended, by type of skilled health personnel and place	Births attended by different types of skilled health personnel and place	All births in target population	–	*8, 9*
Caesarean sections as a proportion of all births	Caesarean sections in health facilities	All births in target population	5–15%	*2, 3, 10, 11, 12, 13, 14, 15, 16, 17, 18*
Proportion of births in EOC facilities	Births in EOC facilities	All births in target population	15%	*3, 13, 17, 18*
Indicators of met need for obstetric care				
Proportion of all women with complications treated in EOC facilities	Women with complications treated in basic or comprehensive EOC facilities	15% of all live births in target population	Minimum 100%	*3, 13, 17, 18*
Major obstetric interventions for specific maternal indications as a proportion of all births	Major obstetric interventions for specific maternal indications in health facilities	All births in target population	1–1.9% or local reference rate	*4, 6, 7, 11, 12, 14, 16*
Observed versus expected obstetric complications	Selected obstetric complications (twin pregnancy, breech, placenta praevia and abruptio placentae) admitted in EOC facility	Expected incidence of selected obstetric complications in target population	Reference incidence in population of same ethnic origin, or local reference	*5*

EOC = essential obstetric care.

midwifery programme, while highlighting the need for strengthening the referral chain to higher levels of care (Fig. 1) (*20*). However, interpreting this indicator would require countries to decide where they expect births to take place; this is rarely done (*9, 21*).

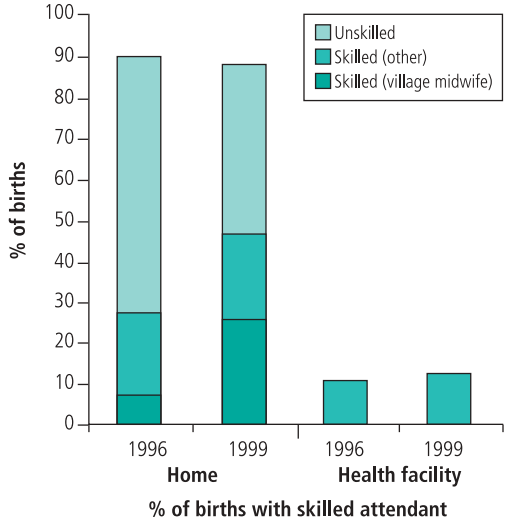
Caesarean section rates

Population-based estimates of the caesarean section rate may reflect, at least partially, the extent to which pregnant women access life-saving obstetric care. This indicator can be expanded to add other major obstetric interventions (MOIs), such as laparotomy for uterine rupture, hysterectomy for unremitting haemorrhage, and symphysiotomy or craniotomy for cephalo-pelvic disproportion (CPD) (*12, 15, 16, 22, 23*). In settings where access to surgical facilities is very low, the majority of caesarean sections may well be carried out to save the life of the mother, and caesarean rates may be accurate tracers of use of essential obstetric care (EOC) services. In Guinea, for example, implementation of a refugee-assistance programme led to a fourfold increase in the caesarean section rate from 0.03% to 0.12%, reflecting clear progress towards meeting the need for obstetric care (*15*).

As caesarean section rates rise, however, the assumption that the majority are done for maternal reasons is no longer valid. As coverage of services increases there is a broadening of the indications to include fetal problems and, possibly, unnecessary caesarean sections (*24, 25*). Even where caesarean rates are extremely low, a substantial proportion may not have maternal indications. In Senegal, for example, the population-based caesarean section rate in 1992 did not exceed 1.2% for any of the regions, yet there was large variability in the proportions of sections performed for maternal indications (Fig. 2) (*12*).

Nevertheless, WHO, UNICEF and UNFPA promote a minimum caesarean section rate of 5% without specifying the reasons for the procedure (*1–3*). However, all-cause caesarean section rates much lower than 5% may be sufficient to achieve low maternal mortality. The Netherlands and England and Wales had maternal mortality ratios as low as 20 and 60 per 100 000 respectively with caesarean section rates not exceeding 2% (*6*). In Harare, Zimbabwe, a maternal mortality ratio of 71 per 100 000 was reported with an emergency caesarean section rate of 2.7% (*26*) and in St Louis, Senegal, maternal mortality was 148 per 100 000 with a caesarean section rate of 2.4% (*27*). These data suggest that setting an arbitrary minimum caesarean section rate of 5% may enhance an over-interventionist culture, and cause more harm than good. Rises in caesarean section rates cannot be assumed to infer progress in reducing maternal mortality.

Fig. 1. **Attendance at home and facility-based births in three districts in South Kalimantan, Indonesia (1996–99)**



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Proportion of births in essential obstetric care facilities

A joint UNICEF/WHO/UNFPA report suggested that at least 15% of all women should deliver in basic and comprehensive EOC facilities (*3*). As a subset of the indicator "who delivers the woman, and where the birth takes place", this indicator is valuable in understanding the configuration of delivery services, particularly when public and private facilities are separated. In Bangladesh, for example, institutional deliveries rose from 2.2% in 1994 to 8.3% in 1999, with more than one-third of the latter in private facilities, suggesting an increasing role of the private sector (*18*). However, as with caesarean section rates, the numerator may include women for whom such admission was not medically indicated, and caution is required in inferring from rising trends that the need for services is being met. In addition, the assumption that 15% of pregnant women require interventions provided in EOC facilities is not supported by empirical evidence (see below), and setting such targets may encourage a policy of hospital deliveries, despite repeated reassurances that they are not recommended (*3*).

Indicators measuring met need for obstetric care

Proportion of all women with complications who are treated in essential obstetric care facilities

The proportion of all women with complications who are treated in EOC facilities has been widely promoted as an indicator of "met need for essential obstetric care" (*2*, *3*). This assumes that the proportion of pregnant women having a complication requiring life-saving obstetric care is relatively stable across populations at 15%, enabling need for life-saving obstetric care to be easily quantified (*2*, *3*). While this indicator is at first sight appealing, caution in its interpretation is warranted.

First, it is necessary to define conditions that are included as complications. Although it seems desirable to include the main direct causes of maternal death, there is no consensus as to what constitutes these complications. UNICEF/WHO/UNFPA included haemorrhage (antepartum or postpartum), prolonged/obstructed labour, postpartum sepsis, complications of abortion, pre-eclampsia/eclampsia, ectopic pregnancy, and ruptured uterus under the working definition of a complicated case (*3*). The Prevention of Maternal Mortality (PMM) network and the MotherCare group used similar definitions, but the latter added severe anaemia, twins and embolism (*28–30*). Nirupam & Yuster, on the other hand, incorporated interventions and included any obstetric case during or following pregnancy that requires operative intervention (excluding routine episiotomy), transfusion, antibiotics or management of hypertension, severe anaemia, unusual bleeding, obstructed labour or unusual presentation (including breech) (*13*).

Secondly, imprecise and unreliable case definitions introduce considerable heterogeneity in severity, so that many women classified as having a complication may not require life-saving interventions. The equivocal definitions of "dystocia" and "prolonged labour" are well known (*31, 32*). Prolonged labour, for example, comprises prolonged second stage which is unlikely to put the mother's life at risk, and transverse lie which will almost certainly require a surgical intervention to save the mother's life. If the indicator is intended to measure progress towards improved services, then more specific definitions are needed.

Fig. 2. **Caesarean section rates by region in Senegal, 1992**

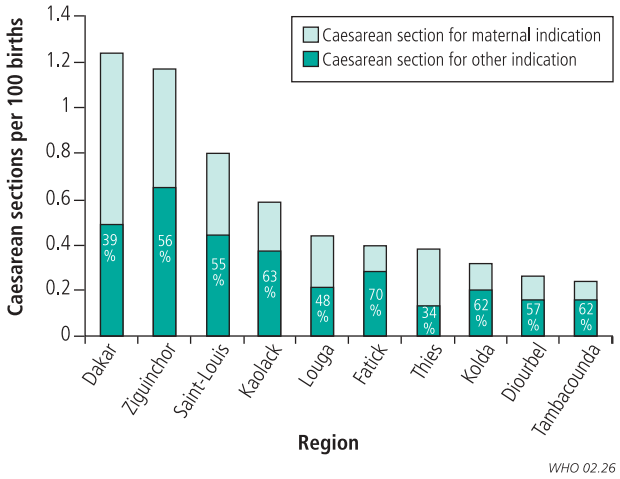
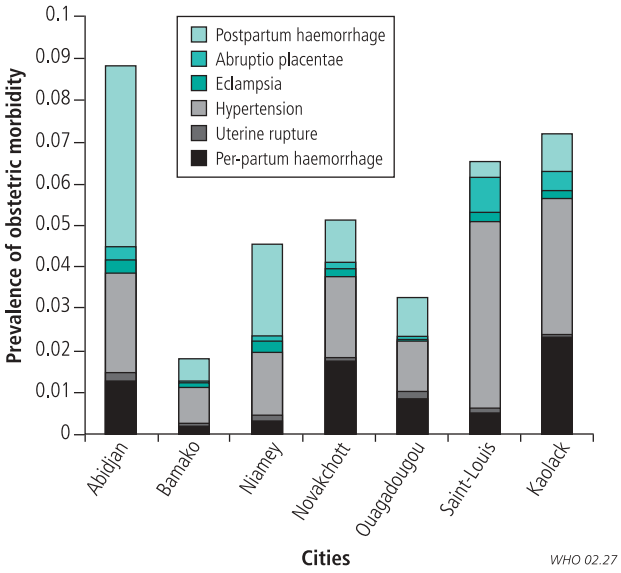


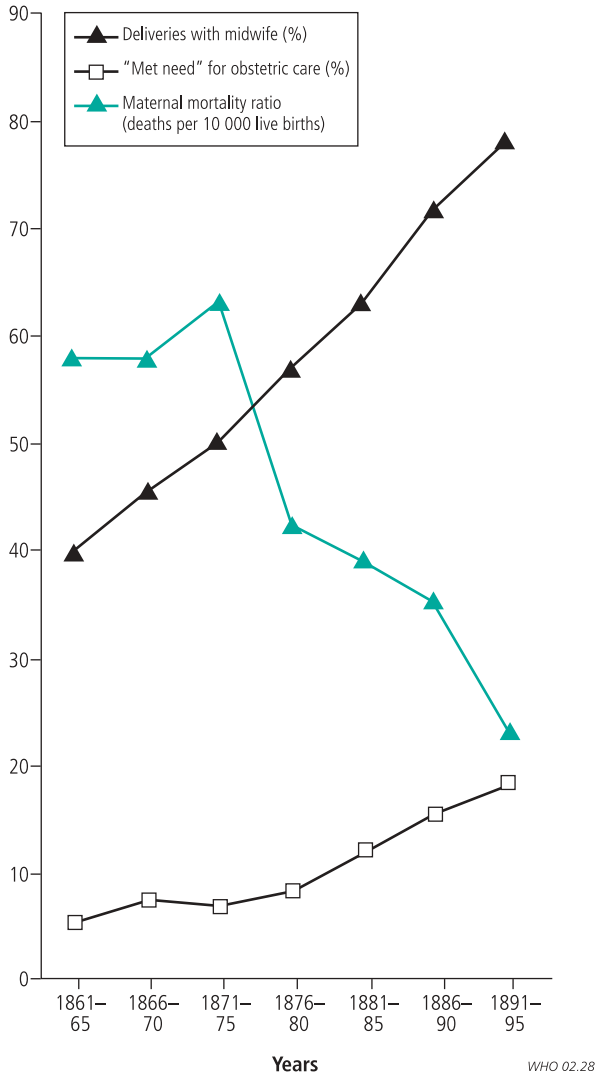
Fig. 3. **Prevalence and causes of obstetric morbidity in seven West African cities, 1994–96** (adapted from (*27*))



Thirdly, while abortion and ectopic pregnancy may be important causes of maternal death, they are not necessarily appropriate indicators of the need for obstetric care. The factors that influence whether or not women with abortions or ectopic pregnancies present at health facilities may relate more to the legal status of abortion, access to family planning and the prevalence of sexually transmitted diseases than to the organization of delivery care. Excluding abortion may reduce the "met need" indicator by half (*17*). Documenting the prevalence of abortion and ectopic pregnancies in health facilities is important but including them as a pointer to the need for delivery care is confusing.

Fourthly, it has never been empirically verified that at least 15% of all births are "complicated", nor is there any reason to believe that the incidence of obstetric complications is constant across population groups. In a prospective study in seven cities in West Africa, for example, the incidence of morbidity during labour and delivery varied from 2.8% to 8.4% with enormous variability in the types of complications reported (Fig. 3) (*27*). In rural Bangladesh, on the other hand,

Fig. 4. **Trends in maternal mortality, deliveries by midwives and "met need" for obstetric care in Sweden, 1861–95**



26.2% of women experienced a labour or delivery complication (*33*). The question remains whether these differences are real or are due to varying case definitions, access to care, quality of care, or reporting.

Finally, a limitation of this indicator is the assumption that obstetric care for the broad range of complications specified can only be delivered in health facilities. Historical data refute this assumption. Between 1861 and 1895, Sweden reduced maternal mortality from 580 to 230 per 100 000 with only a moderate increase in facility-based births from 1% to 3% (*34*). The key factor enhancing the decline in mortality appears to have been the sharp rise in professional attendance at home births (from 40% to 78%). Even if all of the facility births had been complicated, "met need for essential obstetric care" would have risen from 5% to 18% (Fig. 4).[a] If the Swedish policy-makers in 1861 had taken this to imply that access to hospital care was greatly deficient, they may never have arrived at their highly effective policy of professionalizing midwifery. In settings where qualified midwives perform life-saving actions, the indicator proposed by UNICEF/WHO/UNFPA may grossly underestimate the extent to which need for obstetric care is met.

Major obstetric interventions for maternal indications

The proportion of MOIs for "absolute maternal indications" (AMIs) among all births is another indicator for estimating met need for obstetric care. By specifying the indication for the MOI, and selecting only those performed for maternal indications, this indicator addresses the concerns raised about caesarean section rates (*6*, *11, 12, 16, 22*). De Brouwere & Van Lerberghe term this indicator "unmet obstetric need" (*6*).[b]

There is no general consensus on what constitutes an AMI. Van den Broek et al., for example, include placenta praevia, antepartum haemorrhage and dystocia (*11*). "Dystocia", however, may include a large proportion of fetal indications (*31*). Bouillin and colleagues include CPD, placenta praevia, fetal malpresentation and uterine rupture (*12*). De Brouwere and colleagues and Criel et al. include severe antepartum haemorrhage due to placenta praevia or abruptio placentae, unremitting postpartum haemorrhage, major CPD (due to a small pelvis or hydrocephalus; including uterine pre-rupture and rupture), transverse lie and brow presentation (*4*, *6*, *16*). The inclusion of eclampsia as an AMI is a matter of debate (*14*). The condition is a major cause of death, but many women survive without medical intervention and the risks relate to the degree of hypertension rather than the eclamptic fits themselves (*35*). High blood pressure rather than the occurrence of convulsions could be included as an AMI, but this would complicate data collection since blood pressure values are rarely available from delivery ward registers.

Some of the diagnoses listed as AMIs may depend on subjective "physician" factors. CPD in particular is notoriously difficult to measure (*36*). In the 1980s, the United States of America had six times more caesarean sections for CPD than Ireland among comparable women, for "cultural" rather than epidemiological reasons (*37*) .

De Brouwere and colleagues suggest that 1–2% of pregnant women are expected to need a major intervention to save their lives (*4*, *6*). This figure, based on historical data from England and Wales, is consistent with current estimates from urban areas in developing countries with good access to care (0.93% for Morocco, 1.14% for Guinea and 1.2% for Indonesia) (*7*, *14*, *15*). Although the incidence of life-threatening complications requiring MOI may be more constant than complications as defined by UNICEF/WHO/UNFPA, it may vary by levels and age-patterns of fertility, nutritional deficiencies and infectious diseases. For example,

[a] In Sweden, the proportion of all births occurring in hospitals increased from 0.8% in 1861–65 to 2.7% in 1891–96 (*34*). Assuming that all deliveries in the hospital at that time were complicated, and that 15% of all births in the population are expected to be complicated, the proportion of births with complications taking place in hospitals (essential obstetric care facilities) was 5.3% and 18.0% in 1861–65 and 1891–95 respectively. As it is possible that not all births in hospital were complicated, we may have overestimated the proportion of complicated births taking place in hospital.

[b] Although the indicator presented here refers to the met need for obstetric care, the authors tend to report the reverse, i.e. the difference between the met need and a reference rate, or the unmet need. The reference rate, or the proportion of women that are expected to need a life-saving intervention, is based on rates reported in the literature or on a local reference from an area with good access to obstetric care. The indicator is often presented in absolute numbers, i.e. the absolute number of additional MOI required to meet the need for obstetric care.

underlying anaemia may determine the life-threatening nature of obstetric haemorrhage, and shorter height and skeletal tuberculosis may lead to higher rates of CPD (*38, 39*).

In the absence of universal reference rates, the use of a local reference may be relevant (*6*). In Morocco, for example, the investigators looked at the deficit in rural areas, where the median rate of MOIs for AMIs was 0.3%, in comparison with urban areas where the rate was 0.9% (*4*). Similar discrepancies were observed in South Kalimantan, Indonesia, where the rate in the most urban district was 1.2%, compared with rates of 0.4% and 0.7% in more remote districts (*14*).

One drawback to this indicator may be the lack of statistical robustness for monitoring changes over relatively short periods of time. In Indonesia, the proportion of complications in EOC facilities, MOI, and rate of MOIs for AMIs showed similar patterns of inequality between three districts, but the difference between the districts failed to reach statistical significance for the rate of MOIs for AMIs (*14*). In Zaire, data had to be pooled over five years to ensure sufficient statistical power (*16*). Indeed, measurement of a 50% increase in met need from, say, 0.70% to 1.05% would require 11 678 births each year (with 80% power and 95% significance). With crude birth rates ranging between 20 and 30 per 1000, this would require populations of 400 000–600 000.

Observed versus expected complications

Pittrof provides a simple approach for assessing the need for obstetric care (*5*). The indicator "observed versus expected ratio" (OVER) measures the ratio of the number of specific obstetric complications presenting at an EOC facility to the number expected in the target population. The expected complication rates are obtained from published data on populations with a similar ethnic background. Breech at delivery, multiple pregnancy, abruptio placentae and placenta praevia were selected because their correct management requires admission to an EOC facility; their incidence may be stable across populations; and they are highly specific and can be measured reliably. For example, in Zimbabwe, the expected frequency for breech delivery was 32 per 1000 deliveries, multiple pregnancy 28 per 1000, abruptio placentae 10 per 1000 and placenta praevia 3 per 1000 (*5*). The OVERs, calculated for each complication separately, ranged from 6% for abruptio placentae to 55% for twin pregnancy.

The major strength of this indicator is that breech and multiple pregnancy rates are largely determined by genetic (as opposed to environmental) factors, and can therefore be assumed to be constant within groups of similar ethnic origins. Even if the absolute values of the reference rates are not entirely accurate, the stable incidence allows valid comparisons over time. As with MOIs for AMIs, local reference data from urban populations with good access to EOC may be used.

The practical simplicity of OVER makes it attractive as an indicator of unmet need for obstetric care. The complications are clear-cut and less prone to misclassification (versus for example CPD). A drawback of this method is that some of the complications included are relatively rare.

Multiple indicators of use of delivery services

Few studies have assessed the capacity of various indicators to capture the need for obstetric care (*14*). Using MotherCare data from three districts in Indonesia, Ronsmans et al. compared the proportion of complications admitted in EOC facilities (*3*), MOI rates, MOI for AMI rates (*6*), and OVER for breech and twin deliveries (*5*) (Fig. 5) (*14*). The relative pattern of inequalities was remarkably consistent across districts and indicators and showed that one district (Barito Kuala) was deficient in meeting the need for obstetric care. Studies conducted in India and Nepal also found consistent patterns in the proportion of births at EOC facilities, the proportion of obstetric cases treated at EOC facilities and caesarean section rates, with some notable exceptions in India (Fig. 6) (*13, 17*). For example, while caesarean section rates were similar in Saran and Nagpur (5%), the proportions of expected complications managed at the health facilities were strikingly different (2% and 31% respectively).

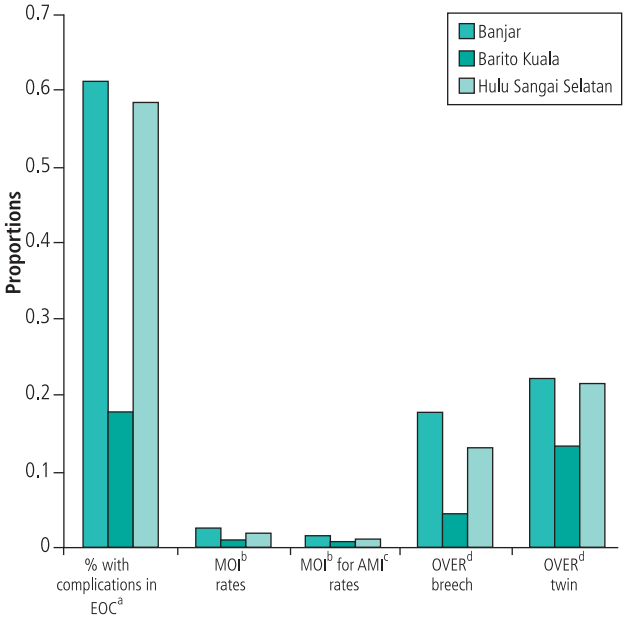
Data collection

Data for the proportion of births attended by skilled health personnel or caesarean section rates can be obtained from population-based surveys. Indicators incorporating obstetric complications require health facility records because women's recall is inaccurate (*40–42*). Using facility-based registers is not straightforward since information can be incomplete, facilities have multiple registers, and all health facilities (including those in the private sector) should be included, avoiding double-counting of women.

Data often need to be collected from a variety of records: admission, delivery, discharge, referral or surgical registers (*17, 43*). Many of these lack clear patient identification so tracing is not easy.

There is very little experience of involving private providers in such efforts and it is often assumed that they provide limited obstetric care (*7*, *14*). Bangladesh and Indonesia show this is not the case (*18, 44*). The private sector is clearly expanding and ways of obtaining its cooperation need to be explored.

Fig. 5. **Indicators measuring the use of and need for obstetric care in three districts in South Kalimantan, Indonesian, December 1996–November 1997**



[a]EOC = essential obstetric care.
[b]MOI = major obstetric interventions.
[c]AMI = absolute maternal indicators.
[d]OVER = observed versus expected ratio.

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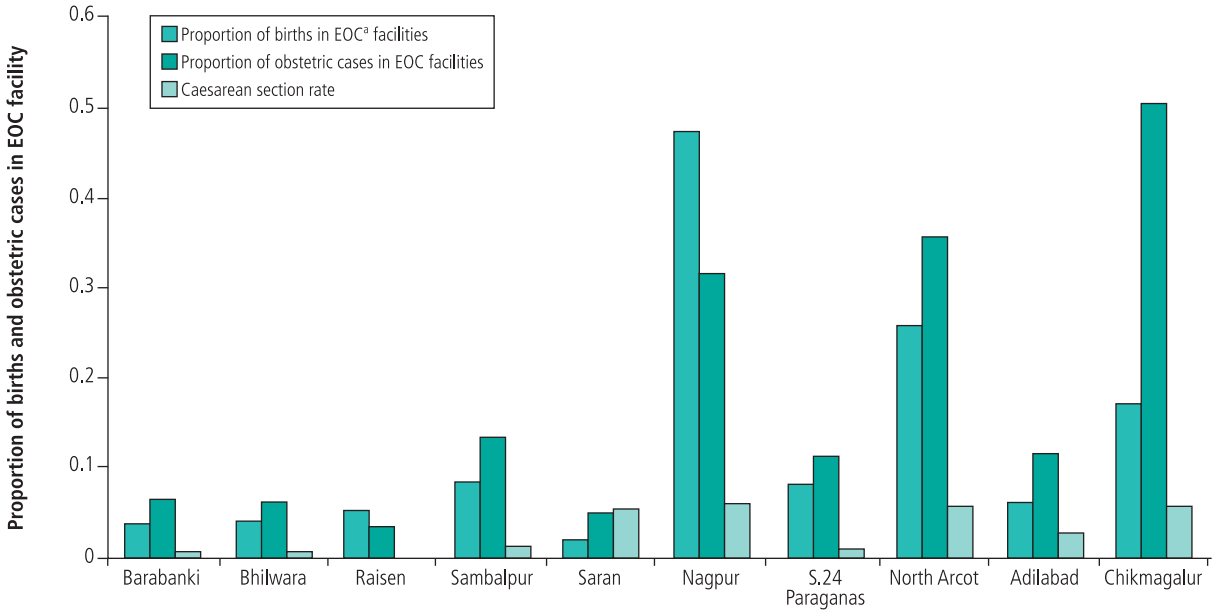
Fig. 6. **Indicators measuring the use of and need for obstetric care in 10 districts in India, September 1992–May 1993** (adapted from (*13*))



[a]See footnote a, Table 5.

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Double-counting occurs either when women use different levels of the health system and admissions at all health facilities are tallied separately, or when women are admitted repeatedly during pregnancy. This is difficult to avoid except for MOIs or MOIs for AMIs that are only recorded in one facility.

Existing registers often need modification to supply the required data. Most record the type of delivery and obstetric interventions, but many do not specify the indications for the interventions (*7, 13, 43*). In Morocco, for example, there was no record of indication for 28% of MOIs (*7*). Information is more likely to be missing for emergency admissions, which are likely to be more serious.

Estimation of obstetric need by geographical area requires a record of women's addresses. The assumption that all women admitted to a hospital come from its catchment area may be inaccurate as some women seek treatment across geographical boundaries. This was shown very clearly in South Kalimantan, Indonesia (Table 2). For two of the three districts (Banjar and Hulu Sangai Selatan), nearly all women sought care in facilities within their district of residence. For the district of Barito Kuala, on the other hand, 38% of women sought care elsewhere, mostly in the provincial capital hospital. Careful recording of addresses is indispensable to avoid over- or underestimating service use for a given geographical area (*30*).

Most indicators of use of obstetric need or care require an estimate of the number of births in the same geographical area. This can be hard to obtain, and there remains some ambiguity as to whether to include all births or only live births (*1*, *2*). Usually, the numbers of births are estimated by applying crude birth rates to the estimated population. Population statistics are collected through ten-yearly censuses, which are then adjusted for population growth. These may be reliable on a national level, but are less so in areas that experience migration, which affects the comparison of relatively small population groups or urban and rural areas.

Table 2. Distribution of obstetric complications by location of health facility and district of residence for women using health care for obstetric complications in three districts in South Kalimantan, Indonesia, December 1996–November 1997[a]

District where care is sought	District of residence		
	Banjar *n* (%)	Barito Kuala *n* (%)	Hulu Sangai Selatan *n* (%)
Banjar	1098 (99.9)	71 (37.6)	15 (3.6)
Barito Kuala	0 (–)	118 (62.4)	1 (0.2)
Hulu Sangai Selatan	1 (–)	0 (–)	397 (96.1)
All	1099 (100.0)	189 (100.0)	413 (100.0)

[a]Adapted from Ronsmans et al. 1999 (*38*).

Discussion

This review shows that defining, measuring and interpreting indicators of obstetric use or need is not straightforward. While it is easy to define the place or type of delivery (i.e. caesarean section), conceptual uncertainties remain as to what effective delivery care consists of, and who requires it. The concept of "met need" is attractive, but the equivocal nature of the definitions of some obstetric complications, the absence of universally accepted indications for potentially life-saving interventions, and the lack of universal targets preclude the forthright interpretation of indicators of obstetric need. For these reasons, and because no single indicator points to the actions required for improving access to obstetric care, the assessment of met need for obstetric care must be drawn from a variety of indicators.

The extensive list of indicators suggested by UNICEF/WHO/UNFPA should be supplemented by adding indicators with more precise, clear-cut, and well-defined diagnostic categories of severe complications (such as those proposed in

the MOI for AMI rates or OVER). Data collection can take place entirely through health facilities, thus considerably simplifying the task of generating indicators. Health professionals should be involved in determining the definitions, in taking responsibility for the accuracy and completeness of the data, and in interpreting the results. This will ensure more valid and reliable measures and facilitate their use by professionals for decision-making and as instruments for change. ■

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Conflicts of interest: none declared.

Résumé

Remise en question des indicateurs des besoins en soins obstétricaux

Les difficultés de la mesure de la mortalité maternelle ont conduit à réorienter les efforts sur les indicateurs de l'utilisation des services de soins de santé plutôt que sur les indicateurs sanitaires eux-mêmes. De plus, sachant que des soins obstétricaux spécialisés sont nécessaires chez certaines femmes pour éviter un décès maternel, on a recherché des indicateurs mesurant les besoins en soins obstétricaux qui ont été satisfaits. Si l'idée paraît séduisante a priori, la conceptualisation et la définition des besoins en soins obstétricaux sont loin d'être simples et on n'a encore qu'une expérience relativement limitée de l'utilisation et de l'interprétation d'indicateurs portant sur le recours aux services de soins obstétricaux ou le besoin de tels soins. Dans le présent article, nous examinons ce type d'indicateurs et exposons brièvement quelques questions concernant le recueil de données.

Resumen

Cuestionamiento de los indicadores de las necesidades de atención obstétrica

Las dificultades de medición de la mortalidad materna han llevado a poner menos énfasis en los indicadores de salud y más en los indicadores del uso de los servicios de atención sanitaria. Además, el reconocimiento de que algunas mujeres necesitan atención obstétrica especializada para prevenir las defunciones maternas ha llevado a buscar indicadores que midan el grado de satisfacción de esa necesidad de atención obstétrica. Aunque atractiva a primera vista, la conceptualización y definición de la necesidad de atención obstétrica dista mucho de ser algo sencillo, y la experiencia acumulada hasta ahora en cuanto al empleo e interpretación de los indicadores de uso de los servicios o de necesidad de atención obstétrica es relativamente escasa. En este artículo revisamos diversos indicadores del uso de los servicios y de las necesidades de atención obstétrica y examinamos brevemente algunos aspectos relacionados con el acopio de datos.

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