Expert meeting on the definition and measurement of unsafe abortion Meeting Report

Dates of meeting: January 9th and 10th, 2014

Location: Montague Hotel, Bloomsbury, London, United Kingdom

List of participants

- Akin Bankole (Guttmacher Institute)
- Andrea Pembe (Muhimbili University)
- Bela Ganatra (WHO)
- Carine Ronsmans (LSHTM)
- Clementine Rossier (University of Geneva)
- Gilda Sedgh (Guttmacher Institute)
- Heidi Bart Johnston (WHO)
- Ian Askew (Population Council)
- Isaac Adewole (University of Ibadan)
- Janie Benson (Ipas)

- Jenny Cresswell (LSHTM)
- Kate Reiss (Marie Stopes International)
- Kazuyo Machiyama (LSHTM)
- Oona Campbell (LSHTM)
- Sandra MacDonagh (DFID)
- Susheela Singh (Guttmacher Institute)
- Timothy Powell-Jackson (LSHTM)
- Thoai Ngo (Marie Stopes International)
- Veronique Filippi (LSHTM)
- Vinoj Manning (Ipas)

Rapporteur: Onikepe Owolabi

Introduction

Against the backdrop of major shifts in the availability and means of delivery of abortion services across much of the world, an expert group meeting on the definition and measurement of unsafe abortion was held on the 9th and 10th January, 2014. The two-day meeting combined chaired panel presentations followed by plenary discussions on the first day, with group discussions on the second day around specific topics. The objectives of this meeting were:

1. To identify the strengths and limitations of the prevailing definitions of unsafe abortion in the current legal, policy and service delivery context;
2. To discuss the implications of existing estimates of unsafe abortion using current definitions and measures;
3. To develop a plan for revising the definition and measurement of unsafe abortion to better reflect current realities.

Outline of the report

This report is in three sections. Section one summarizes the presentations at the meetings under their session themes; section two presents the key discussion points as they relate to the objectives of the meeting; and section three highlights priorities for future directions proposed by participants.

Section 1: Summary of individual presentations

Definition and measurement derived from conditions under which abortions are undertaken

Bela Ganatra discussed the history of the WHO definition of unsafe abortion and ongoing efforts and future plans to clarify the concepts underlying the definition, improve its operationalization and ensure it is updated according to current evidence. She emphasized that the original 1992 definition[1,2], which has been paraphrased into the present wording, was not developed to count, measure or report the incidence of unsafe abortion but was developed within the context of WHO guidelines for providing safe abortion services. The process and skills outlined in this definition should therefore be interpreted in line with current WHO evidence-based service delivery guidelines. It is not possible for the definition to spell out standards for the providers, procedures and environment as these guidelines are constantly evolving to accommodate new practices, such as medical abortion (MA) and appropriate providers and delivery environment for MA provision. It is therefore better to add to the definition a link or explanatory footnote to the appropriate evidence based guidelines on standards of care.

WHO proposed that safety be conceptualized along a continuum of risk rather than the current binary "safe"/"unsafe" categorisation. As mortality from unsafe abortion decreases- possibly due to better treatment for complications, the growing use of medical abortion, utilizing morbidity as a measure is more important. The proximal determinants of an unsafe abortion are- the duration of pregnancy, the method used for termination, access to the heath system. Distal determinants affecting this spectrum are- legal context, human resources, socioeconomic status, cost of the abortion and social vulnerability. Furthermore, unsafe

---

[1] *WHO definition of an unsafe abortion: "The termination of an unintended pregnancy either by persons lacking the necessary skills or in an environment lacking the minimum medical standards or both."*

[2] *World Health Organization. The prevention and management of unsafe abortion. Report of a Technical Working Group. Geneva, World Health Organization, 1992 (WHO/MSM/92.5).Cited in WHO 2011, ibid.*

abortions should not be equated with abortions outside the legal framework, either conceptually or in the operationalization of the definition for measurement.[3] Ganatra also discussed utilizing morbidity as a measure of unsafe abortion because mortality from unsafe abortion is decreasing due to improved treatment for complications and the rapidly growing use of medical abortion, which is generally a safer procedure during first trimester abortions.

Andrea Pembe gave an overview of how abortions have been performed over time. Thereafter he discussed the multiple types of providers and methods of "unsafe abortion", the factors affecting women's choices of providers and methods, and the implications of currently used methods for clinical safety. He concluded by questioning the practicality of using the concepts of technical skills and appropriate environment as outlined in WHO's current definition of unsafe abortion.

Possible parameters of a new definition of unsafe abortion

In operationalizing the current definition of unsafe abortion, "unsafe" has often included all illegal abortions in countries with restrictive laws as well as those not meeting medical requirements in countries where it is legal. **Gilda Sedgh's** presentation explored what an "unsafe" abortion means in different situations. Currently, "unsafe" can mean: an abortion by a trained provider in an optimal environment but which does not conform to legal restrictions; an untrained provider in an unhygienic environment providing an abortion that has no complications; an incomplete medical abortion that requires MVA to complete the procedure; and a medical abortion with follow-up clinical procedures which might not have have been necessary.

Sedgh proposed a 5-tier gradient for classifying abortions, ranging from very unsafe (results in severe complication or deaths) to safe (with trained provider, hygienic settings, legal, without stigma). She then went on to raise several issues when defining safety on a spectrum, including:
1) What evidence do we need to make distinctions between the different levels of the spectrum?
2) What would be the parameters for defining unsafe abortions?
✓ *Are these parameters measurable?*
✓ *Is there data to measure them with?*
✓ *Can one definition of unsafe abortion fit all purposes?*
3) What are the policy and programmatic implications of these definitions?

Data to inform improved measures of degree of safety

Clementine Rossier presented her experience working with survey data on abortion. She described methods for eliciting information on abortion experiences from women directly and indirectly through questionnaire surveys and how to improve reporting in surveys. While collecting data on the circumstances surrounding an abortion and the characteristics of women seeking abortions is possible through population-based surveys, underreporting of abortion procedures is common in all contexts. The degree of underreporting varies with the legal and social milieu. Rossier's recent analysis of data from France and Switzerland suggests that women of different ages, marital status and education underreport abortion to the same extent in surveys. Rossier also discussed the utility of an indirect method for quantifying population-level abortion incidence as an alternative to face-to-face surveys if self-reporting is

---

[3] *Ganatra, B., Tuncalp, O., Johnston, H. B., Johnson Jr, B. R., Gulmezoglu, A. M., & Temmerman, M. (2014). From concept to measurement: operationalizing WHO's definition of unsafe abortion. Bulletin of the World Health Organization, 92(3), 155-155.*

very low and abortion highly stigmatized. Called the anonymous third party reporting (ATPR) method, or the "confidants' method"[4], experience from studies using this method in India[5] and Burkina Faso[6] suggest that it may yield more accurate measures where access to abortion is challenging and women have to consult their social networks to procure an abortion. The confidant's method has subsequently been repeated in another study comparing it with the abortion incidence complications method (AICM) to estimate the incidence of abortion.

Akin Bankole presented the Guttmacher Institute's methodology (the abortion incidence complications method (AICM))[7],which uses a Health Professional Survey (HPS)to generate a multiplier that can be applied to hospital-based data on the number of abortion procedures to estimate the overall incidence of induced abortion in a population. This survey interviews local experts from diverse backgrounds to elicit information on the circumstances surrounding abortion and abortion-related morbidity in a country. The multiplier takes into account two main factors: the safety of the procedure; and accessibility to medical care. The survey also accounts for differences in these factors by residence (urban/rural) and economic status (poor/non-poor) in generating the multiplier. The multiplier is then applied to data on admissions for post abortion care collected from surveys of health facilities to generate the incidence of abortion. The questions used to generate the multiplier are currently being revised to account for the increased access to and possible use of misoprostol outside of medical facilities.

Carine Ronsmans discussed the findings of a published systematic review examining morbidity from unsafe abortion (Adler et al IJOG)[8,9]. The review examined how abortion complications and their severity are defined in published studies. Reviewed papers were from all regions which WHO classifies as having more than a negligible incidence of complications and death from unsafe abortion. However only papers in published in English were included. The review showed that there were few population-representative studies, no standardized way of distinguishing between complications of spontaneous and induced abortions, and no standardized criteria for defining and classifying these complications, making the interpretation of findings difficult. It is therefore crucial that case definitions are standardised.

Susheela Singh presented an overview of how data on complications and other morbidities in health facilities have been collected and the type of information and indicators that can be derived from health facility data on complications. There are three main sources for data: National Health Service statistics, health facility surveys (HFS) and prospective morbidity surveys (PMS). These sources can be used to derive the incidence of induced abortion and

---

[4] Rossier, Clémentine, et al. "Estimating clandestine abortion with the confidants method—results from Ouagadougou, Burkina Faso." Social Science & Medicine 62.1 (2006): 254-266.

[5] Elul Batya. Anonymous third party reporting of induced abortion: An experiment in Rajasthan, India. Unpublished report.(http://demoscope.ru/weekly/knigi/tours_2005/papers/iussp2005s50057.pdf). Retrieved 15th March 2013.

[6] Sedgh, Gilda, et al. "Estimating abortion incidence in Burkina Faso using two methodologies." Studies in Family Planning 42.3 (2011): 147-154.

[7] Singh, S., Remez, L., & Tartaglione, A. E. (2010). Methodologies for Estimating Abortion Incidence and Abortion-Related Morbidity : A Review. (S. Singh, L. Remez, & A. Tartaglione, Eds.)Population English Edition. Guttmacher Institute. Retrieved from http://www.guttmacher.org/pubs/compilations/IUSSP/abortion-methodologies.pdf, 12th December 2012.

[8] Adler, A. J., Filippi, V., Thomas, S. L., & Ronsmans, C. (2012). Quantifying the global burden of morbidity due to unsafe abortion: Magnitude in hospital-based studies and methodological issues. International Journal of Gynaecology and Obstetrics: The Official Organ of the International Federation of Gynaecology and Obstetrics, 118 Suppl, S65–77. doi:10.1016/S0020-7292(12)60003-4

[9] Adler, a J., Filippi, V., Thomas, S. L., & Ronsmans, C. (2012). Incidence of severe acute maternal morbidity associated with abortion: a systematic review. Tropical Medicine & International Health : TM & IH, 17(2), 177–90. doi:10.1111/j.1365-3156.2011.02896.x

unwanted pregnancy, rates or proportions of severe morbidity events and quality of care indicators. She outlined the limitations of each source and listed countries where the HFS and PMS have been conducted. All three sources produce estimates with varying margins of error and do not distinguish between spontaneous and induced abortions at all or do so inadequately.

Thoai Ngo and **Janie Benson** discussed how abortion service statistics from programs and services supported by MSI and Ipas are collected and used, with a focus on how they define and quantify safety in service provision. Different sources of data such as hospital log books; client interviews and sales data were described. Benson discussed the limitations encountered in using such data collection tools, particularly underreporting of cases, procedures, and quality of care.

Vinoj Manning gave an overview of sales data for medical abortion products available in India, the difficulty of accessing such data, defining the sample from which the data is drawn and the challenges with the quality of information available.

Tim Powell-Jackson discussed experiences from a recent mapping and questionnaire survey of drug sellers and a mystery client study to assess the market for medical abortion in India. . Medical abortion is widely available in India, however there are large discrepancies in the information on availability of medical abortion between drug seller interviews and mystery client data.

Section 2: Key themes from presentations

Strengths and limitations of the prevailing definitions of unsafe abortion in the current policy and medical context

a. Policy implications of the current WHO definition

In crafting a definition of unsafe abortion that better describes the ways in which it is currently provided, there are great benefits in keeping it simple from a policy perspective, while measurement issues are addressed. It has become important to measure the impact of increased availability of misoprostol/mifepristone products on access to abortion services. There are two sides to presenting potentially reduced unsafe abortion rates based on a revised methodology of measurement that takes into account the use of medical abortions and the diminishing number of severe adverse events. Organizations working on safe abortion want their work recognized through improved estimates. However reduced rates may suggest to some people that "unsafe abortions are not happening".

b. Conceptualizing, defining and measuring safety

The current conceptualization of safety in abortion care is inclined to consider safe procedures as provider-conducted abortions in appropriate medical environment. As medical abortion becomes more prevalent there is likely to be an increase in procedures "performed" at home with provider guidance, and self-initiation by clients. This is an important factor to consider in the definition of safety, the development of guidelines and the measurement of safe and unsafe abortions.

Additionally the current definition of safety and based on clinical factors does not encompass other important elements that may influence the outcome of an abortion e.g. financial barriers. It may be important to include such factors in future frameworks of measurement.

Although there was no consensus, discussions suggested that it might be helpful to provide a definition of safe abortion in addition to unsafe abortion. This may help to change the lens through which abortion is discussed by conveying that it is predominantly a safe procedure when conducted according to clinical evidence.

c. Is there a need to change the current definition of unsafe abortion?

The majority of participants supported continuing with the current definition with the addition of an explanatory note connecting it to WHO evidence-based guidelines for safe abortion. It was also suggested that the definition of skills necessary for using medical abortion should include those required by the woman when she is using misoprostol alone or in combination. The definition of procedure should explicitly include medical abortion. There were suggestions of the need to develop an additional definition for morbidity associated with an abortion procedure as severe morbidity is the clearest evidence of an unsafe procedure.

Existing estimates of unsafe abortion

a. Discussion on some evidence available from studies

Evidence from the systematic review presented by Carine Ronsmans shows that there is a small number of population representative studies on abortion-related morbidity, highlighting how little data is available. Some data from hospital-based studies suggest that abortion morbidity and mortality may be reducing. Specifically, very severe complications are reducing whilst less severe morbidities are not reducing. Thus with reducing complications due to safer procedures, there may be a false impression that the incidence of abortion is on the decline.

b. Challenges with measuring morbidity

As death and high severity morbidity due to abortion reduce, and lower severity complications continue or increase, how confident can we be that we are distinguishing morbidity from a normal adverse event associated with the procedure, e.g. bleeding? The classification of "unsafe" usually indicates an adverse event. Hence, grouping all lower severity complications with normal presentation bleeding is not accurate. There is a need to quantify normal bleeding for different abortion procedures so that it can be differentiated from injurious bleeding.

The categorizations used by the prospective morbidity methodology (PMM) have been most frequently applied to measure abortion-related morbidity in health facilities. However, previous studies did not consider separating the mild morbidity associated with increased medical abortion use into normal and abnormal. It is necessary to develop such questions and add them to the PMM methodology.

It practice it is methodologically challenging to distinguish between spontaneous and induced abortions within available data sources. This will be more difficult with the growing medical abortion. The uncertainty this introduces into estimates can be considered from two perspectives. Regardless of whether they are complications from spontaneous abortion or induced abortion complications, for health planning to you need to consider and manage both. Attempting to separate women into either category may also be considered stigmatizing. On the other hand in the abortion field we are most often accused of overestimation. Hence, not taking account of spontaneous can be controversial. To improve the precision of estimates for policy reasons and demographical precision, it is important to invest in advancing the methods for distinguishing induced from spontaneous abortions. Additionally policymakers may be more interested in avoiding the cost of treating complications from induced abortions instead of pooling both categories together.

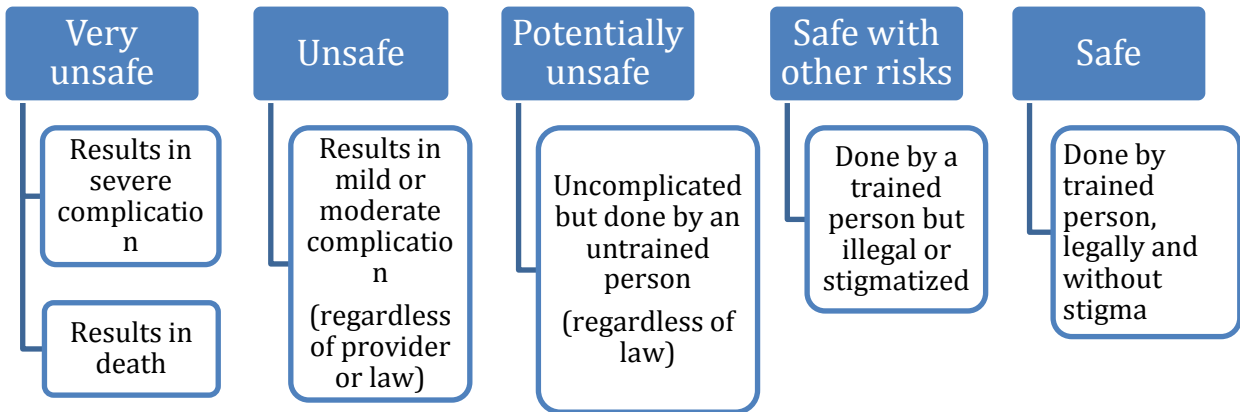## Improving the definition and measurement of unsafe abortion

a. Approaching abortion-related morbidity through obstetric morbidity

Due to the challenges in quantifying abortion-related morbidity in restrictive countries, it might be easier to approach abortion morbidity through obstetric morbidity- taking advantage of the less controversial topic to do our research. However past experience suggests that although there is less stigma around quantifying obstetric morbidity, there are fewer people are willing to address abortion within the obstetric field. Exploring methods to improve data collection on abortion as a subset of obstetric morbidity and mortality will be valuable to generating more data points and improving estimates.

b. Measuring abortion safety using a proposed spectrum of safety

Measuring abortion safety along a spectrum as proposed in Gilda Sedgh's presentation will require 6 elements to classify an abortion- indication for abortion, provider, setting [legal, stigmatizing], method used, subsequent result, complication and severity of the complication. An adjustment to the spectrum outlined might be to have procedures ranging from minimum to maximal risk, and at each level of procedure a degree of safety described by the other 5 elements above. This is an illustration of abortion safety along a spectrum attempting to summarize both the process and outcome leading to each level of safety highlighted.

Figure 1: Sample classification of abortions by safety

Very unsafe	Unsafe	Potentially unsafe	Safe with other risks	Safe
Results in severe complication	Results in mild or moderate complication (regardless of provider or law)	Uncomplicated but done by an untrained person (regardless of law)	Done by a trained person but illegal or stigmatized	Done by trained person, legally and without stigma
Results in death				

Another suggestions on how to capture the spectrum of risk associated with abortions was proposed based on Bela Ganatra's presentation. The illustration below attempts to summarize abortion safety based in this. It highlights 3 levels of abortion safety along the spectrum and explores elements of clinical care and other dimensions that can contribute to risk.

unsafe

unsafe

1

hrp

c. Collecting data on abortion safety

Using established and new approaches to data collection on abortion safety, suggestions made on how to increase and improve the availability of data related to abortion safety include-

- Asking questions about women's medical abortion experience, and subsequent outcomes in surveys. This would require that underreporting is not substantial between different groups of women. However evidence suggests that using self-report of morbidity in surveys to quantify morbidity has low validity.

- Conducting surveys in countries with population based data on abortion e.g. Eastern European countries so data from surveys can be compared with routine population data to examine for patterns in underreporting and see if it is non-differential or not. This would improve our knowledge on how useful survey data can be to provide population level inferences.

- Conducting more structured drug-seller and pharmaceutical studies to help us understand and classify where medical abortion falls within the spectrum of safety. This may involve understanding the range of advice given by drug sellers, the numbers of clients they get, discrepancies between self-reported drug seller data and experiences from mystery client studies and the subsequent impact of advice provided on client outcomes.

Section 3b: Directions for future research

This section outlines areas identified as important for future research on unsafe abortion and possible study designs to answer them under 3 broad themes.

Unpicking the grey areas in medical abortion

a. **Research on misoprostol and the safety of social franchising, how to document this and how to interpret abortion sales data.** This can be conducted using community-based surveys amongst drug-sellers (surveys, direct observational or simulated client studies) and women.

b. **How to define and measure adverse outcomes for misoprostol abortion e.g. necessary or unnecessary follow-up MVA after medical abortion.** Study designs may include hospital based studies or clinical studies of women conducting abortions using misoprostol.

c. **Qualitative studies describing and mapping where women are getting medical abortion** e.g. pharmacies, the Internet or friends and their degree of access to the medications.

d. **The impact of misoprostol on abortion-related morbidity.**

e. **Accommodating misoprostol in the multipliers and base data used to estimate the incidence of induced/unsafe abortion.** Guttmacher is adapting the research tools in their health professional and facility surveys to elicit expert opinions on the extent of medical abortion use in different contexts.

f. **Examining the dynamics of use of misoprostol versus the mifepristone/misoprostol combination based on ease of access in different contexts.** Study designs may include community based studies such as drug-seller studies (surveys, direct observational or simulated client studies) and qualitative surveys of women

Quantifying the burden of abortion and its complications

a. **Comparing if women's reports in surveys gives the same or a different picture of abortion as routine statistics.** Assessing the usefulness of survey data by comparing it with routine statistics and checking if there is more robust evidence it can be used. This can be done by easily in legal contexts, and with more limitations In restricted settings.

b. **Studies documenting trends in the burden of abortion and abortion related morbidity and mortality** e.g. through hospitalization, community studies, surveys. The Adler systematic review only accessed peer-reviewed literature, however there is likely to be a useful grey literature with estimates of abortion-related morbidity and mortality.

c. **Refining the criteria and methodology for classifying and measuring the severity of abortion-related morbidity.** This can be facilitated through experts meetings using clinical systematic reviews and other primary research to determine standardized classification criteria.

Research into the social and "woman" perspectives and experience of abortion

a. **Studies on abortion-related stigma.** There is some early work on stigma in communities and facilities. More work is needed to understand how it affects access to care and then develop interventions to reduce it. Appropriate study designs may include qualitative community based studies with women.

b. **Exploring good points of intervention along the health-seeking pathway for a woman seeking to terminate a pregnancy.** This is particularly important in rural areas. Study designs may include qualitative interviews of women who have terminated pregnancies to understand pathways to access abortions and qualitative interviews with abortion providers.

c. An anthropological study on **the concept of safety from different perspectives**- women, activists, and epidemiologists.
d. **Women's experiences of stigma after an abortion.** Study designs may include hospital based studies of women who have undergone induced abortions, community based studies with women
e. **Understanding how to bring the concept of harm reduction into abortion, particularly in restrictive legal contexts.** This can be facilitated through policy studies to examine the current stance on harm reduction regarding abortion and how to integrate it into providing comprehensive abortion care.

Quality of care related to abortion
a. **Clinical audits of cases of severe abortion-related morbidity to understand underlying quality of care challenges.**
b. **What information and health system support women need when they self-administer misoprostol and how we can work to meet those needs.** This may include hospital and community based studies of women who have undergone, or will undergo induced abortion using misoprostol to understand their experiences, and how to optimize this process for them.

<div align="center">

Appendix: Agenda for the meeting

</div>

Each topic will be introduced with brief (about 10 minute unless otherwise indicated) presentations that are intended to help shape the ensuing discussions.

<u>Day 1:</u>
Arrive   9:00 - 9:15

Welcome, introductions   9:15 - 9:45
Veronique Filippi and Gilda Sedgh

Conditions under which abortions are obtained   9:45 - 10:45
Chair: Akin Bankole

    a. Unsafe abortion: current definitions - history, strengths, and limitations
- Bela Ganatra

    b. Unsafe abortion: providers and methods used and how these have changed over time, with attention to implications for the safety of abortion
- Andrea Pembe

Open Discussion: How definitions of unsafe abortion comport with women's experiences.

Possible parameters of a new definition of unsafe abortion: Part I   10:45 - 11:45
Chair: Isaac Adewole

    Factors to consider and possible parameters of a definition
- Gilda Sedgh

Open Discussion: Other parameters and general issues to consider

BREAK11:45 – 12:00

Data to inform improved measures of degree of safety: Part I   12:00 - 13:15
Chair: Heidi Johnston
Presentation will be 5-7 minutes each

a.   Surveys of women – Clementine Rossier
b.   Surveys of health professionals – Akin Bankole
    c. Morbidity studies – Carine Ronsmans

Open Discussion: Strengths and weaknesses of data from these sources

LUNCH   13:15 - 14:15

Data to inform improved measures of degree of safety: Part II   14:15 - 15:45
Chair: Heidi Johnston
Presentation will be 5-7 minutes each

    a. Data on number of complications treated in facilities – Susheela Singh
    b. Abortion service statistics – Thoai Ngo and Janie Benson
    c. Data on sales of abortion medication drugs, including trends in sales – Vinoj Manning

d.   Surveys of drug sellers and women about knowledge and use of abortion medication – Tim Powell-Jackson

Open Discussion: Strengths and weaknesses of data from these sources

BREAK 15:45 - 16:00

Possible parameters of a new definition of unsafe abortion: Part II   16:00 - 17:15
Chair: Isaac Adewole

Open Discussion: Honing in on parameters of a potential new definition of unsafe abortion

<u>DAY 2:</u>

Synthesis   9:15 - 10:15
Veronique Filippi

        a. Possible revisions to the definition of unsafe abortion
        b. Existing evidence compatible with revisions to the definition

BREAK   10:15 - 10:30

Next steps and closing   10:30 - 12:00
Ian Askew

    a. Directions of future research
        b. Using insights and recommendations from meeting
        c. Communicating key messages to non-technical audiences
        d. Possible products from meeting

CLOSE 12:00