ANNEXES

ANNEX 1: WATER WORKING GROUP 2

ANNEX 2: SANITATION WORKING GROUP 14

ANNEX 3. HYGIENE WORKING GROUP 21

ANNEX 4. EQUITY AND NON-DISCIMINATION (END) WORKING GROUP 29

Note: these Annexes provide some further reflections and proposals of each working group prior to the consolidation process. The working groups' proposals have since been adapted to form a consolidated proposal that these Annexes belong to. Further documentation of the processes of each working group is available on the JMP website:
http://www.wssinfo.org/post-2015-monitoring/overview/

Annex 1: Water Working Group

Introduction

In January 2012, WHO/UNICEF Joint Monitoring Programme (JMP) established four expert working groups to develop technical proposals for enhanced goals, targets and indicators for global monitoring of water, sanitation and hygiene after 2015. The Water Working Group (WWG), co-led by WaterAid and IRC-International Water and Sanitation Centre, comprised members drawn from a range of relevant disciplines and organisational backgrounds including national governments, bilateral donors and development banks, international NGOs, academia, specialized UN agencies and professional networks (see list in Table A6). During 2012 the group convened monthly teleconferences and held face-to-face meetings in Marseille and London.

Table A1 summarises the major steps in the process to-date which has involved developing a long list of potential target and indicator options and then evaluating them on the basis of evidence and experience and synthesizing them into a concise technical proposal. The group considered a wide range of information relevant to the provision of drinking water services globally, including reports by academics, policy makers and practitioners as well as earlier JMP Task Force reports. Efforts were made at each stage of the process to elicit feedback from a wider group of stakeholders via a combination of online surveys and presentations at major international meetings. Water working group proposals were then combined with those from the other working groups and further refined to create a single consolidated draft proposal for global monitoring water, sanitation and hygiene.

Table A1: Water Working Group Process

Internal	Step	External meetings and events
1st Meeting in Marseille	Step 1 - Start up	World Water Forum (JMP session)
Development of long list of water related targets and indicators	Step 2 - Vision	Sanitation and Water for All (High Level Meeting)
Background studies to proposed targets and possible indicators/E-survey	Step 3 – Scope & focus	Africa Water Week (JMP session) Rio +20
2nd Meeting in London	Step 4 – Consultation & review	Singapore (JMP session) Stockholm (JMP session)
Short list of proposed targets and indicators 1st draft consolidated proposal	Step 5 – Evaluation	UN General Assembly
Measurability meeting in NY 2nd draft consolidated proposal	Step 6 – Synthesis	UNC Chapil Hill (JMP session) High Level Panel on post 2015
JMP Consultation, The Hague	Step 7 – Proposal	UN Thematic Consultations

Guiding principles

During the first meeting in Marseille the group outlined a vision for enhanced monitoring and some basic principles to guide the development of enhanced goals, targets and indicators[1].

First, there was consensus on the need to establish an ambitious and inspirational goal reflecting the human right to water and sanitation (HRTWS). Second, it was agreed that the accompanying targets should be realistically achievable within the given timeframe (2015-2040) and combine both (a) universal targets which all countries should seek to attain, and (b) global targets towards which all countries should seek to make progress. Third, it was agreed that, as far as possible, global monitoring should be aligned with national level monitoring and identify a small number of commonly agreed criteria and indicators which can be used to track progress. Fourth, future targets and indicators should build on the existing MDG targets and associated monitoring instruments (to ensure "backward compatibility" and understand long term trends), while at the same time increasing the ambition and sophistication of global WASH monitoring by making use of new instruments and sources of data (beyond existing household surveys). Lastly, proposals must be 'future proof' and consider possible future scenarios ranging from demographic and socioeconomic shifts to likely technological developments.

Scope and focus

The group agreed that future targets should continue to focus on extending and improving access to drinking water at household level as a first priority. The MDG target to halve the proportion of the population without access may have been met, but JMP estimates that around 600m people will still be without access in 2015.

Further, whereas the MDG targets were limited only to household level access, the group recommended extending the focus to include 'extra-household' settings in which access to drinking water has significant health and non-health benefits. It was also agreed that future targets should have an explicit focus on reducing inequalities by targeting poor and otherwise disadvantaged groups, in line with the recommendations of the Equity and Non Discrimination (END) working group[2].

The challenges associated with provision of drinking water services in a rapidly urbanizing world were a major focus of discussion and the WWG agreed that disaggregation of data relating to urban populations will be important to inform policy and investment planning. It should be noted that the mandate of the group was limited to those supplies which people use primarily for drinking and other basic needs (see definitions) and did not include wastewater management which is being addressed by a separate UN task force.

Proposed service criteria

The following proposal is grounded in the idea of multiple levels of drinking water service ranging from a very basic service (or no service at all) to a very advanced level of service. This concept of a *service ladder* whereby users can gradually progress from a lower to a higher level service – characterized by multiple criteria – is increasingly used within the sector and is consistent with the Human Rights concept of progressive realization. In recent years the JMP has moved beyond the simple improved/unimproved classification (e.g. distinguishing 'piped on premises' and 'other

[1] Summary of JMP post-2015 Water Working Group in Marseille, 15-16th March 2012; Framing Paper for post 2015 Water Working Group, May 2012.

[2] Final Report of JMP post 2015 Working Group on Equity and Non-Discrimination

improved'). The WWG sought to build on this further and reviewed a range of other criteria currently being used to define drinking water service thresholds.

The Human Right to Water (and Sanitation) is now widely recognised by UN member states and the normative and cross cutting criteria which apply have recently been further elaborated by the UN Special Rapporteur, Catarina de Albuquerque. The original UNCESCR General Comment 15 of 2002 uses three main criteria (availability, quality, accessibility), but identifies three sub-categories of accessibility (physical, economic and non-discrimination). The Independent Expert's 2010 report uses five normative criteria similar to GC 15, but separates acceptability from quality and considers non-discrimination as a cross-cutting concern rather than a normative criterion.

The group critically reviewed at least 10 criteria[3] and over 100 related indicators in total and concluded that many of these are closely related. Furthermore, the first three criteria (availability, quality and accessibility) are consistently ranked as the most important in national monitoring systems, followed by reliability and affordability. This was confirmed by working group members representing national governments, by the *WASHCost* project[4] analysis of over 12,000 household surveys, and by the WWG E-survey which received over 160 responses via established networks of water and sanitation professionals. The group therefore sought to define different service thresholds for different settings in terms of these three core composite indicators[5] (Table A2).

Table A2: Drinking water service criteria

Criterion	GC 15, 2002	IE Report, 2010	WWG, 2012
Sufficient quantity	Availability	Availability	Availability
Continuity of service			
Safe for health	Quality	Quality/safety	Quality
Aesthetically acceptable			
Time/distance required to collect	Accessibility (physical)	Accessibility	Accessibility
Suitable for use by all, including disabled and older people			
Affordable	Accessibility (economic)	Affordability	Affordability
Non-discrimination	Accessibility	(cross-cutting)	(cross-cutting)

Definition of service levels and service sustainability

There was broad consensus in the group on the need to move beyond the improved/ unimproved classification and introduce multiple service levels. But the idea of everyone achieving a universal minimum service threshold was maintained. It was agreed that 'basic' is a more correct term to

[3] Acceptability, Accessibility, Accountability, Affordability, Availability, Efficiency, Quality, Quantity, Reliability, Sustainability

[4] IRC International Water and Sanitation Centre, The Netherlands; financed by Bill and Melinda Gates Foundation.

[5] Affordability is a critical component of the human right to water but is difficult to assess at household level (Hutton, 2012). Rather than discounting those using unaffordable services, the group agreed to treat it as a cross cutting issue under sustainability.

describe this lower threshold than 'improved' and proposed introducing a second 'intermediate' service threshold for those that have already attained a basic level of service to aspire to. The group recognised that additional higher levels of service may be appropriate in more advanced countries, but recommended that the next generation of global targets should be primarily focused on progressive improvements in access to basic and intermediate levels of service.

The approach of the group was both principled and pragmatic. The proposal seeks to address the normative criteria of the HRTWS as far as possible, while not setting the bar too high either in terms of what can be achieved, or what can be monitored. It was further agreed that the basic threshold should be both universally achievable and readily monitored using existing instruments, whereas the intermediate threshold was not only expected to be more difficult to achieve but also to require more sophisticated monitoring involving new sources of data. Table A3 provides the definitions of both basic and intermediate water services at home.

Household surveys provide an invaluable foundation for existing global monitoring, and are likely to continue to do so for some time. However, in future data from cross sectional surveys will increasingly need to be combined with data from other sources (utilities, regulators, etc) in order to monitor progress towards higher levels of service.

Basic household drinking water service. The group recommends replacing the term 'improved' with 'basic' but incorporating indicators currently used by JMP within the basic service definition, to maintain "backwards compatibility" to MDG targets. It was agreed that current definitions of 'improved drinking water sources' provide a reasonable indication that water will be of a suitable quality in rural areas but suggested that in urban areas the list of sources should be restricted to piped water (into the dwelling, yard or plot), standpipes/public taps and (deep) tubewells/boreholes[6]. Availability is dependent on both the quantity of water a source delivers and the continuity of service, both of which are difficult to measure through household surveys. The group agreed it is reasonable to assume that improved sources are capable of delivering the accepted 20 lpcpd minimum, provided time/distance to collect is not too great. Accessibility of sources was not addressed pre-2015, despite strong evidence that reducing the burden of water collection – mainly by women and girls – brings significant health and economic benefits. On this basis the group agreed to prioritise the addition of an indicator relating to accessibility. A 30-minute collection time, for a roundtrip including queuing, is generally considered to be an acceptable minimum threshold for an acceptable service and this information is already collected in a number of household surveys.

Intermediate household drinking water service. The group recommended the introduction of a second higher service threshold termed 'intermediate'. The aim was to define a threshold which was suitably ambitious, in terms of potential health and non-health benefits, but also achievable for a significant proportion of the global population within the given timeframe. There is broad consensus among sector professionals that getting water services on the premises is key to increasing the quantity of water consumed, not only for drinking but for other basic needs including improved sanitation, and hygiene behaviours.

[6] Empirical data on the quality of water delivered by different sources is limited and the group recommends that the list of 'improved sources' should be refined further as water quality data becomes more widely available.

Table A3: Indicators for household drinking water service

	Availability	Quality	Accessibility
Basic service at home	Improved source Rural: existing pre-2015 JMP definitions[7]. Urban: piped water, standpipe/ public tap, or tubewell/ borehole	Improved source Rural: existing pre-2015 JMP definitions. Urban: piped water, standpipe/ public tap, or tubewell/ borehole	Collection time <30 minutes for roundtrip including queuing
Intermediate service at home	Improved source on premises Moderate discontinuity (<2 days in preceding 2 weeks)	E.coli < 10 CFU/100ml year round at source	Improved source on premises Accessible to all household members at the times they need it

While having a tap in every home is a universal aspiration[8], it is unclear how many households could realistically attain this by 2040, particularly in rural settings. The group therefore opted for the slightly lower standard of 'improved source on premises' (within dwelling, plot or yard). It is reasonable to assume this would increase availability to around 50 lpcpd, assuming only moderate disruptions in the continuity of service. The group therefore proposed adding an indicator establishing a maximum threshold of discontinuity (i.e. no more than 2 days in the preceding 2 weeks).

Accessibility is not only about proximity of source to the household but includes physical accessibility by all members of that household, including disabled, young, elderly, pregnant, etc. The END working group recommended adding a question on accessibility (e.g. is the water source accessible to all household members whenever they need it?) and the water group agreed that such a measure should be included in the definition of an intermediate service.

The Human Right to Water requires that 'water must be of such a quality that it does not pose a threat to human health', and the lack of direct measures of drinking water quality has been a criticism of global monitoring to-date. WHO has well-established guidelines covering a wide range of potentially harmful substances but it is currently unrealistic to monitor all of these globally. The 2010 JMP Task Force report on water quality monitoring prioritized the three water quality parameters most strongly linked with health impacts: E.coli for microbial contamination as an absolute minimum[9]; and arsenic and fluoride for chemical contamination. The report also recommended classifying water quality in terms of relative risk, with higher levels of E.coli corresponding to higher risks (Table A4).

[7] Piped water into dwelling or yard/plot; public tap or standpipe; tubewell or borehole; protected dug well; protected spring; bottled water; rainwater harvesting.

[8] 'A tap in every home' is an established policy objective in both China and India which together account for a significant proportion of the global population.

[9] Thermotolerant Coliforms, also known as faecal coliforms, are recognised as suitable alternative if E.coli enumeration is not feasible.

Table A4: Rick based approach to microbial testing

Count per 100 mL	Category	Remarks
< 1	A	In conformity with WHO guidelines
1-10	B	Low risk
10-100	C	Intermediate risk
100-1000	D	High risk
> 1000	E	Very high risk

While the importance of water quality is recognised, data are scarce for either microbial or chemical quality. However methodologies for monitoring indicator bacteria are improving rapidly and it is expected that monitoring will become increasingly cost effective during the next reporting period. The group therefore recommended the introduction of water quality indicators within the definition of intermediate service targets. It was agreed that full conformity with WHO guidelines is unrealistic and that a target based on a low level of risk i.e. <10 CFU E.coli/100ml is more achievable. Furthermore it is possible to measure a level of <10 E.coli without membrane filtration which makes it much easier and cheaper and therefore more measurable. The group further recommended that testing should be done at source (the point of delivery) and recorded 'year round' (to incentivize repeat testing).

Extra-household drinking water service. All four working groups agree that future global targets must include 'extra-household' settings in which populations access water, sanitation and hygiene services while not at home. A wide range of different settings was considered including 'high use' (schools, workplaces, markets, transit hubs), 'high risk' (health facilities, detention centres), and 'special case' (mass gatherings, pilgrimage, refugee camps). It was agreed that schools and health facilities should be the top priority on the basis of health and non-health benefits and that these are also currently the most viable settings for global monitoring, although workplaces, markets and transit settings should also be considered in future as data sources emerge[10]. Special case settings were considered unsuitable for global monitoring and prisons were considered politically less palatable. The same approach followed for household level services was used to define basic and higher service thresholds in terms of availability, quality and accessibility for schools and health facilities, taking into account existing WHO guidelines. The group recommended that information on access to drinking water services in schools and health facilities (see definitions) should be collected through a combination national sector information management systems and nationally representative service/facility assessments.

[10] Cronk, R, Bartram, J, and T. Slaymaker (2012) Monitoring Access to Water, Sanitation and Hygiene in Extra-Household Settings. Background paper prepared for JMP post 2012 Water Working Group, August 2012.

Table A5: Indicators for extra-household drinking water service

	Availability	Quality	Accessibility
Basic service in schools	Improved source (capable of delivering 5 litres per capita per day for all users or minimum quantity required by WHO per facility type)	Improved source Rural: existing JMP definitions. Urban: piped water, standpipe/public tap, or tubewell/borehole	Water source located on facility premises Water points accessible to all users at all times
Basic service in health facilities	Improved source (capable of delivering minimum quantity required by WHO per facility type)	Improved source Rural: existing JMP definitions. Urban: piped water, standpipe/public tap, or tubewell/borehole	Water point located on premises Water points accessible to all users at all times

Sustainability of drinking water services. Sustainability of services has been a growing concern within the sector in recent years and was a major focus of discussion within the water working group. The term sustainability has consistently featured in earlier goals and targets but indicators were not developed and it has not previously been measured. There was consensus in the group that it can no longer be ignored.

While actual sustainability can only be determined by measuring the performance of a drinking water service over the long term, the group sought to identify a small number of parameters that can be used to indicate whether services are likely to be sustainable in the future. A wide range of parameters were considered relating to operational, institutional, financial and environmental aspects of sustainability and the group eventually agreed on a *small number of indicators that could be meaningfully monitored, benchmarked and compared globally*. The purpose of the target and indicators proposed is not to attempt a comprehensive assessment of sustainability but rather to encourage continuous improvement over time against a small number of parameters which are universally considered important - i.e. affordability, accountability, financial sustainability and environmental sustainability.

Specific WWG proposals are detailed as follows.

Overall vision / goal

The WWG proposed the following vision/goal: **Safe, sustainable drinking water for all**. The group recommends that the goal should be a simple, inspirational and communicable expression of the progressive realization of the human right to water and sanitation by everyone. Specifically it should be politically appealing (drinking water), consistent with MDGs and other historical targets (safe and sustainable) and ambitious (for all). Other options which were also considered include:

- Water for all
- Drinking-water services for all

- Sustainable drinking water for all
- Safe, sustainable water for all
- Equal access to safe and sustainable water for all
- Water for everyone, forever

Targets

The WWG proposed four interrelated targets which aim to drive progressive improvements in the number of people with access to drinking water services at home and in extra-household settings, progressive improvements in the levels of service received, and progressive improvements in the overall sustainability of those services.

1. **By 2030, EVERYBODY has (equitable) access to a sustainable basic drinking water service close to home**

2. **By 2030, EVERYBODY has (equitable) access to a sustainable basic drinking water in their education and health facilities**

3. **By 2040, the gap in access to a sustainable intermediate drinking water service at home has been halved in all groups***

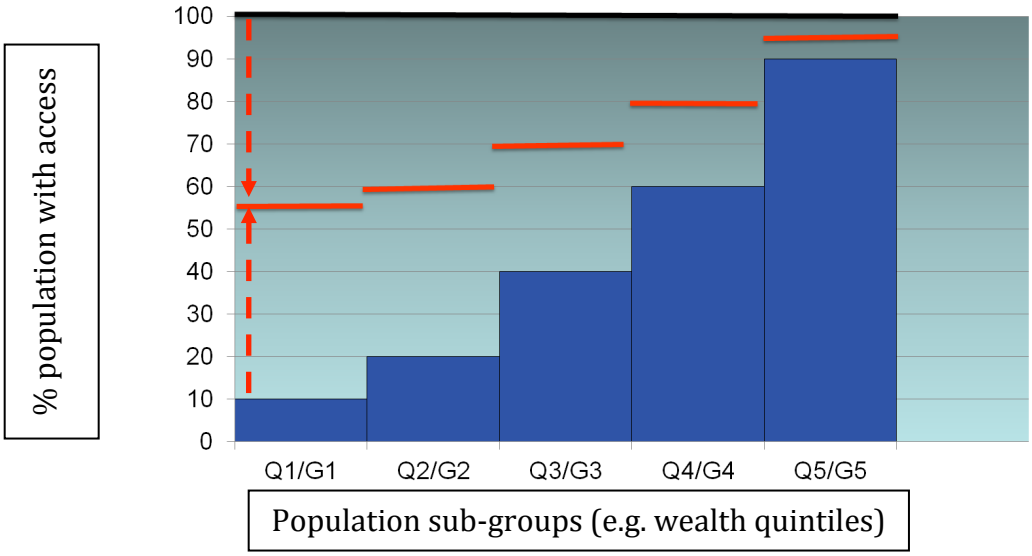
4. **All water (sanitation and hygiene) services are delivered in a progressively affordable, accountable, financially and environmentally sustainable manner**

[*total population, wealth quintiles, rural urban, and other disadvantaged groups identified through participatory national processes taking into account prohibited grounds of discrimination]

Targets 1 to 3 focus on the service outcomes (ends), at individual, household, school and health centre level, which UN member states can realistically aspire to achieve within the 2015-2040 timeframe. Target 4 focuses on the processes (means) that enable and support the sustainability of those service outcomes over time. The purpose of Target 4 is not to attempt to set an end date for sustainability, but rather to encourage continuous improvement over time in against a small number of core parameters of sustainability.

A series of different target formulations were considered as detailed in the reports and minutes of working group meetings and teleconferences. Much of the discussion centreed on how to operationalise the concept of progressive realization in such a way that encourages both an improvement in overall numbers of people with access and progressive reduction in inequalities in access between specified population groups. The logic of the formulation used in Target 3 is that halving the proportion of the population without access to a defined level of service in each population sub group would necessarily require a relatively faster rate of progress in those most disadvantaged and therefore lead to a progressive 'leveling up' (Figure A1).

Figure A1: Halving the 'gap in access' in all groups



Definition of terms used

Drinking water: Water used, or intended to be available for use, by humans for drinking, cooking, food preparation, personal hygiene or similar purposes (European Protocol on Water & Health).

Gap in access: The proportion of the population in each sub-group without access to a defined level of service, reported by wealth quintile, rural-urban, slum-formal urban settlement, and 'other disadvantaged groups' (identified through a participatory national process taking into account prohibited grounds of discrimination) and population as a whole.

Health Centres: includes all the places WHO defines as health facilities: hospitals, health centres, clinics, health posts, dental surgeries, general practitioner settings, and home-based care (WHO 2008 Essential Environmental Health Standards in Health Care).

Schools: primary and secondary schools, boarding and day schools, rural and urban schools, and public and private schools (WHO, 2009 Water, Sanitation and Hygiene Standards in Low-cost Settings) plus day care centres, nurseries and kindergartens.

Continuity of drinking water service: the extent to which a water service reliably provides the expected level of service with respect to quality, availability and accessibility.

Drinking water service proposed indicators

1. Basic drinking water service at home: Households are considered to have a **basic** drinking water service when they use water from an 'improved' source (current JMP definitions in rural areas; piped water into dwelling, yard or plot, or a standpipe/public tap or a tubewell/borehole in urban areas) with a total collection time of 30 minutes or less for a roundtrip including queuing.

1.1 Percentage of population using a basic drinking water service

- % households using an improved source with a total collection time of 30mins or less for a roundtrip including queuing.

2. Intermediate drinking water service at home: Households are considered to have intermediate drinking water service when they use water from an 'improved' source (current JMP definitions in rural areas; piped water into dwelling, yard or plot, or a tubewell/borehole in urban areas) located on their premises, which delivers an acceptable quantity of water with only moderate levels of discontinuity (non-functional for no more than 2 days in the last 2 weeks), water quality at source meets a threshold of <10 cfu E. coli/100ml year-round, and the water point is accessible to all household members at the times they need it.

2.1 Percentage of population using an intermediate drinking water service

- % hh using an improved source on premises with discontinuity <2 days in the last 2 weeks; with <10 cfu e.coli/100ml year round at source; accessible to all members of the household at the times they need it.

3. Basic drinking water service in schools: water from an 'improved' source on premises (in rural, existing JMP definitions; in urban, piped water into school, yard or plot or a stand pipe/public tap or a tubewell/borehole) capable of delivering sufficient water at all times for drinking, personal hygiene and, where appropriate, food preparation, cleaning and laundry. 5 lpcpd is available for non-residential schoolchildren and staff in non-residential and day schools. 20 lpcpd is available for all residential schoolchildren and staff in boarding schools. Additional quantities of water may be required depending on sanitation facilities (e.g. pour flush or flush toilets). Drinking water points should be accessible to all users, including those with disabilities, throughout the school day.

3.1 Percentage of pupils enrolled in primary and secondary schools providing basic drinking water services

- % primary and secondary schools with an improved source (definitions adjusted for rural and urban) on premises and water points accessible to all users during school hours.

4. Basic drinking water service in health centres: water from an 'improved' source on premises (in rural, current JMP definitions; in urban, piped water into health centre yard or plot or a stand pipe/public tap or a tubewell/borehole) capable of delivering the minimum quantity of water that is required for different situations in the health care setting as defined by WHO[11] . Drinking water points should be accessible to all users, including those with disabilities, throughout the school day.

4.1 Percentage of beneficiaries using hospitals, health centres and clinics providing basic drinking water services

- % hospitals, health centres and clinics with an improved source (definitions adjusted for rural and urban) on premises and water points accessible to all users at all times.

[11] The WHO Essential Environmental Health Standards recommend the following minimum quantities of water per person in each setting type: Outpatients: 5 L/consultation; Inpatients: 40-60 L/patient/day; Operating theatre or maternity unit: 100 L/intervention; Dry or supplementary feeding centre: 0.5 - 5 L/consultation (depending on wait time); Wet supplementary feeding centre: 15 L/consultation; Inpatient therapeutic feeding centre: 30 L/patient/day; Cholera treatment centre: 60 L/patient/day; Severe acute respiratory diseases isolation centre: 100 L/patient/day; Viral haemorrhagic fever isolation centre: 300-400 L/patient/day

5. Sustainable water services: A drinking water, sanitation or hygiene service is considered to be sustainable if it continues to deliver the designated level of service (with respect to affordability, availability, quality/safety and accessibility) over the long term.

5.1 Percentage of population using water and sanitation service providers registered with a regulatory authority (disaggregated by rural and urban).

5.2 Percentage of population in the poorest quintile whose financial expenditure on water, sanitation and hygiene is below 3% of the national poverty line (disaggregated by rural and urban)[12].

5.3 Ratio of annual revenue to annual expenditure on maintenance (including operating expenditures, capital maintenance, debt servicing) AND

5.4 Ratio of annual expenditure on maintenance (including operating expenditures, capital maintenance, debt servicing) to annualized value of capital assets.

5.5 Percentage raw water quality tests within national standards for faecal contamination AND

5.6 EITHER Ratio of water production (lpcpd) to total water consumption (lpcpd) OR Per capita renewable water resources.

[12] Affordability and accessibility to individual households could be addressed through an additional module of questions in cross sectional surveys which includes: Percentage of population reporting having been unable to access water when they needed it at some time in the past two weeks [add response categories: unreliable, unaffordable, insufficient, unacceptable, access denied, etc]

Water working group members

Table A6. Members of the JMP post-2015 water working group

Name	Organization
Tom Slaymaker (Working Group Lead)	WaterAid, UK
Catarina Fonseca (Working Group Co-Lead)	IRC – International Water and Sanitation Centre, the Netherlands
Graham Alabaster	Water and Sanitation, UN-Habitat, Kenya
Manuel Alvarinho	Water and Sanitation Regulatory Council, Mozambique
Didier Allely	JMP-WHO, Geneva
Ian Arebahona	Rural Water Supply Department, Uganda
Jamie Bartram	Water Institute, University of North Carolina at Chapel Hill, USA
Grace Bediako	Ghana Bureau of Statistics
Maria Julia Bocco	Inter American Development Bank, USA
David Bradley	Oxford University/London School of Hygiene and Tropical Medicine, UK
Kerstin Danert	Rural Water Supply Network, Switzerland
Sasha Danilenko	IBNET/WSP, USA
Rifat Hossain	JMP - WHO, Geneva
Richard Johnston	EAWAG, Switzerland
Velma Lopez	ICF International, USA
Neil McLeod	Durban Water/eThekwini Municipality, South Africa
Sujoy Mojumdar	Ministry of Drinking Water and Sanitation, India
Philipp Peters	GIZ, Kenya
Alain Randiamaherisoa	Ministry of Water and Sanitation, Mozambique
Andrew Trevett	UNICEF, USA
Inga Winkler	German Institute of Human Rights, Germany
Guy Hutton	WHO-JMP, Switzerland
Harold Lockwood	Aguaconsult, UK

Annex 2: Sanitation Working Group

Introduction

The deliberations of the Sanitation Working Group Meetings were initiated at a face-to-face meeting of 13 members of the core group hosted by the Water and Sanitation Program in Washington on 13-14 February 2012. A Discussion Paper had been drafted to set out the sanitation monitoring landscape and set the scene for the meeting. A long-term goal based on universal access to sanitation was developed, and a set of draft targets with a long list of indicators was brainstormed. This long list was subsequently cut down and tasks developed to further advance the thinking.

There was a great deal of discussion of the power of wealth quintile analysis to strengthen targets and ensure progress is made equitably. The group discussed the need to monitor progress in sanitation among marginalized populations (historically excluded due to race, caste, ethnic origin, mother tongue, etc.) but also the difficulty of collecting globally comparable data on these characteristics. The group initially postulated that most excluded people also fall into the lower wealth categories, and that position in a wealth quintile could be a good proxy for discrimination, and that targets set for the lowest quintile would result in progress in the higher quintiles (the "trickle up" effect).

The group debated including a target for people living in open defecation free communities, rather than just having a target for households abandoning open defecation. However, the monitoring of ODF communities is still in its infancy, and it was felt that this would be complex.

The group spent some time discussing the concept of "full management" of excreta. This was expressed by some members as the full "sanitation value chain" going from collection to transport to treatment and possible re-use of both wastewater and sludge. There are significant challenges in measuring this but it was felt to be imperative, and that data sources must be found.

The group reached consensus that shared sanitation should be considered acceptable if there were limits to how many people used a toilet (thus eliminating public toilets), and whether all users knew each other.

Detailed minutes from this meeting were prepared and shared by email, including circulation to the Reference Group. After extensive exchanges by email, a revised set of goal, targets and indicators was developed, and the Core Group held a discussion with the Reference Group through a Webinar conference on May 17th 2012 to discuss. This meeting also included a representative from the Water Working Group.

The Core Group met again by Webinar conference on June 6th 2012. A new version of the goal, targets and indicators was considered. The discussion opened with some perspectives from the Equity and Non-Discrimination Group, which was keen to see a focus on measuring disparity gaps, and argued for the importance of having the poorest fifth of the population flagged, with the caveat that looking only at wealth quintiles may not be sufficient. The END group had also been discussing gender issues and considered facilities for menstrual hygiene management to be an important parameter to monitor. There was clarification that this applied to schools, health care facilities and other public sanitation facilities. The difficulty of monitoring this at household level

was noted, and it was noted that this parameter was not included in the definition of adequate household sanitation.

The group discussed the need to have a target on open defecation that related to the entire population, rather than just the poorest fifth, but open defecation prevalence in the lowest wealth quintile could be one of the indicators. Several participants commented on the need to cut down the number of targets. One target that many felt could be dropped was the one relating to community coverage of sanitation. Though the participants appreciated the need to track coverage on a community basis, it was felt that there were too many challenges to doing this effectively at a global level (availability of data, definition of what a "community" was, huge size differences between communities).

An update was provided on the work of the team at UNC undertaking the UNICEF assignment on urban monitoring, which is highly relevant to the sanitation working group. The group also discussed the need to start a dialogue between the Working Groups in order to ensure there was consistency across the proposals being made, and to begin a consolidation process so that ultimately a short set of targets and indicators could be developed for sanitation, water and hygiene combined.

The next meeting of the group was face-to-face in London on 11-12 September, hosted by the London School of Hygiene and Tropical Medicine, which 12 members of the group attended. This meeting occurred after work had started on a consolidated set of targets and indicators, and the group considered the proposals emerging from that process. In order to facilitate coordination, representatives from the water and hygiene working groups were also invited (a representative from the END group was already a member of the sanitation working group), and a member of the UN Water Working Group on Wastewater also attended to explain that group's work on wastewater.

The group reviewed the current draft definition of "adequate" sanitation – a new version was developed but it required finalization based on measurability. Some parameters were dropped due to difficulty in definition and measurability; for instance, privacy was removed as it is highly culturally specific. The group discussed at length the indicators for the target related to urban sanitation and full management of excreta, and determined that these should be based on "fecal balance" calculations (how much excreta reaches treatment and/or disposal sites).

The WG reflected on the proposed equity indicator and on reconciling with END recommendations. The group was supportive of a formulation that reflects a "halving of the equity gap" approach to be consistent with the Water WG discussions and with the wishes of the END WG. Beyond equity, the WG looked at the question of other marginalized groups, and acknowledged that this was an issue that needed monitoring on a country-by-country basis.

Based on the September meeting in London, the following proposals for sanitation goal, targets, indicators and definitions were prepared as inputs to the consolidated proposal. The full "longlist" of indicators that were considered is included in tabular form.

Overall vision / goal

Universal use of sustainable sanitation services that protect public health and dignity.
Note that the group considered incorporating the term "permanent" but concluded that "sustainable" captured the same aspiration.

Targets

Target #1: By 2025, **no one** practices open defecation, and **all** schools and health care facilities provide **all** users with **adequate** sanitation and hygiene facilities.

Target #2: By 2030, the inequality in access to **adequate** household sanitation is halved, and the excreta of at least half of those households with **adequate** sanitation are safely managed.

Target #3: By 2040, **everyone** uses **adequate** household sanitation services and hygiene facilities, and the excreta of at least XX% [to be determined] of those households with **adequate** sanitation are safely managed.

The group felt it was very important to have a target relating to open defecation. The group also felt that interim targets were important. The wording regarding reduction in inequality of access was discussed at length with the END group.

Definitions

Adequate sanitation at home: each of the following sanitation facility types is considered as adequate sanitation for monitoring progress toward the household sanitation targets, so long as the facility is shared among no more than 5 families or 30 persons (whichever is fewer):

- A pit latrine with a superstructure, and a platform or squatting slab constructed of durable material. A variety of latrine types can fall under this category, including composting latrines, pour-flush latrines, and VIPs.
- A toilet connected to a septic tank.
- A toilet connected to a sewer (small bore or conventional).

Adequate sanitation facilities in schools and health centres are those that effectively separate excreta from human contact, and ensure that excreta do not re-enter the immediate environment. An adequate school or health centre sanitation facility:

- is located in close proximity to the school or health centre;
- is accessible to all users, including adults and children, the elderly, and those with physical disabilities;
- provides separate facilities for males and females (boys and girls at school), and for adults and children;
- is equipped with hand washing stations that include soap and water and are inside or immediately outside the sanitation facility;
- provides adequate menstrual management facilities in sanitation facilities that are used by women and by girls of menstruating age;
- at schools, provides at least one toilet per 25 girls and at least one toilet for female school staff, as well as a minimum of one toilet plus one urinal (or 50 centimeters of urinal wall) per 50 boys, and at least one toilet for male school staff;
- At inpatient health centres, includes at least one toilet per 20 users;
- At outpatient centres, includes at least four toilets – one each for staff, female patients, male patients, and child patients.

Safe management of household excreta is defined as the containment, extraction, and transport of excreta to a designated disposal or treatment site, or the safe re-use of excreta at the household or community level, as appropriate to the local context. The share of households with safely managed excreta is defined as the fraction of households whose excreta:

- Is carried through a sewer network to a designated location (e.g. treatment facility);
- Is hygienically collected from septic tanks or latrine pits by a suction truck (or similar equipment that limits human contact) and transported to a designated location (e.g. treatment facility or solid waste collection site); or
- Is stored on site (e.g. in a sealed latrine pit) until it is safe to handle and re-use (e.g. as an agricultural input).

Indicators

- Percentage of total, urban and rural households practicing open defecation
- Percentage of households in the lowest wealth quintile practicing open defecation
- Percentage of households with children under 5 reporting hygienic disposal of their stools
- Percentage of households in which open defecation is practiced by any members of household (men, women, children over 5)
- Percentage of households using adequate sanitation facility (disaggregated urban and rural and by wealth quintiles)
- Percentage of households in which the adequate sanitation facility is used by all members of household, (including men and women, boys and girls, elderly, people with disabilities) whenever needed
- Percentage of schools with separate and sanitation adequate facilities, used by all
- Percentage of health facilities with separate and adequate sanitation facilities, used by all, for men and women
- Percentage of households with adequate sanitation that have safely managed excreta
- Share of human excreta that reaches designated disposal sites

A fuller list of indicators that was compiled at the initial WG meeting is provided in Table A7.

Table A7. Full list of indicators compiled at Washington meeting (February 2012)

Category	Proposed Indicators – Long Longlist
Access	• Percentage of lowest wealth quintile with access to household-level latrine • Percentage of lowest wealth quintile with access to safe sanitation facility • Percentage of families living in urban slums (urban poor areas) with access to improved sanitation
Open defecation	*ODF communities* • Proportion of population living in ODF communities • Proportion of ODF communities certified/verified • In this community, do members usually defecate in the open? Income/wealth/gender *Household/individual level OD* • Percentage of total population /lowest quintile practicing OD • Do members of your family practice OD? Men/women/children
Disposal of children's feces	• Number of households who safely dispose of children's feces • Percentage of children's feces under 2/3 years that are properly disposed of • Percentage of households with children under 5 reporting hygienic place of disposal of their stools.
Progress in moving up the ladder	• Percentage of households in lowest quintile that have moved from unimproved to improved latrines • Whether sanitation facility is made of temporary/semi-permanent/permanent materials
Water availability	• Percentage of pour flush toilets where access to water is inadequate
Change in social Norms	• Societal expectations (normative and empirical)
Effectiveness in containing excreta	• Improvement in urban water quality parameters • Fecal indicator bacteria per unit area found in soil outside toilet • % of toilets fouled with fecal material • Cleanliness of sanitation facility (hygienic)
Adequacy of shared sanitation	• Is the sanitation facility only accessible to people you know? (privacy) • Number of people or households sharing the sanitation facility • Number of people per toilet seat (availability)
Privacy	Is privacy ensured?
Accessibility and availability	• Are the facilities safe to access at all times of day and night? • Percentage of the poor and vulnerable who use improved sanitation • Whether sanitation facility can be safely used by all household members year round • Whether all household uses sanitation facility or not • Whether san facility is available 24 hours a day • Is the service reliable and always available? • Is there provision for those with disabilities, the elderly etc.?

	• Ratio of male/female users of collective latrine blocks • Percentage of toilets less than x meters from household • Percentage of toilet used by all members of household all the time (including women, children, disabled)
Adequacy of sanitation in institutions and public places	• Are there separate facilities for men/women; boys/girls? • Number of schools with separate and adequate facilities for boys and girls • Number of primary/secondary schools with at least one toilet for every x pupils, gender separated • Percentage of prisons providing sanitation for inmates with privacy • Percentage of public areas (schools, hospitals, markets etc.) with improved sanitation and handwashing facilities • Are sanitation facilities universally available at the workplace, in hospitals, clinics, other public intuitions?
Adequacy of ultimate treatment and disposal	*General* • Percentage of urban households without access to a functioning sanitation service chain (defined as networked infrastructure (sewerage) and treatment or system for empying/transport and safe disposal • Proportion of households using a sanitation facility that is deemed neutral to the environment *Waterborne sewerage* • Proportion of urban wastewater treated to international standards before release to environment or re-use • Percentage of households connected to a wastewater treatment plant *Onsite Systems* • Percentage of urban pit latrine/septic tank owners reporting hygienic pit emptying on last occasion • Frequency of household latrine emptying and location of disposal of latrine contents • % of cesspits/septic tanks in urban poor area that are properly emptied/collected and transported • Whether excreta is removed from sanitation facility in a safe manner, regularly • % of onsite systems emptied regularly and treated safely
Affordability	• Sanitation does not cost more than 3% of lowest quintile household income, on average • Percentage of monthly/yearly income that household pays for sanitation • Proportion of household expenditure on sanitation, focusing on bottom two quintiles, including access time costs • Time taken to defecation place/toilet
Adequacy of expenditure tracking	• % of countries that have a separate national budget line for sanitation

Sanitation working group members

Table A8. Members of the JMP post-2015 sanitation working group

Name	Organization
Core Group	
Eddy Perez (Working Group Lead)	Water and Sanitation Program
Clarissa Brocklehurst (Working Group Co-Lead)	Independent
Sandy Cairncross	LSHTM/SHARE Consortium, UK
Cassilda Carvalho	Association of Sanitary and Environmental Engineering, Brazil
Andy Cotton	WEDC, Loughborough University, UK
Jenna Davis	Stanford University, USA
Therese Dooley	UNICEF
Guy Hutton	Joint Monitoring Programme
Pete Kolsky	Water Institute, University of North Carolina, USA
Alex McPhail	World Bank
Virginia Roaf	Team of UN Special Rapporteur on Human Right to Water & Sanitation
Yaw Asante Sarkodie	Ministry of Water Resources, Works & Housing, Ghana
Darren Saywell	Plan International
Chris Zurbruegg	EAWAG, Switzerland
Alix Zwane	Bill and Melinda Gates Foundation
Reference Group	
Maria Julia Bocco	Inter-American Development Bank
Ned Breslin	Water For People
Bertha Briceno	Water and Sanitation Program, World Bank
Alexander Danilenko	IBNET, Water and Sanitation Program, World Bank
Barbara Evans	University of Leeds, UK
Soma Ghosh	World Bank
Rifat Hossain	JMP, World Health Organization
Anupma Jain	Asian Development Bank
Rolf Luyendijk	JMP, UNICEF
Meera Mehta	CEPT University, India
Eric Mintz	Centres for Disease Control, USA
Elisabeth von Müench	GIZ/SUSANA, Germany
Ada Oko-Williams	WaterAid Africa
Archana Patkar	Water Supply and Sanitation Collaborative Council
Antonio Rodriguez Serrano	Water and Sanitation Program, World Bank
Gary White	Water.Org
Joep Verhagen	IRC International Water and Sanitation Centre, The Netherlands
Dominick de Waal	Water and Sanitation Program, World Bank

Annex 3. Hygiene Working Group

Introduction

The Hygiene Working Group met in Washington, DC, May 15-16, 2012, convened by USAID and the U.S. Department of State, in collaboration with the JMP. Seventeen of the twenty two working group members were in attendance. In addition, several teleconferences were held for the full working group and for each of the three thematic sub-groups- handwashing, menstrual hygiene management (MHM) and food hygiene. Table A9 provides the working group members and the sub-group they belonged to. A background paper was prepared by the London School of Hygiene and Tropical Medicine (LSHTM) which informed the working group discussions for the three sub-groups[13].

The initial document summarizing the group's proposed goal, targets and indicators is entitled 'Meeting Report of JMP post-2015: Global Monitoring Working Group on Hygiene. 15-16 May 2012, Washington, DC. The report may be found at: http://www.wssinfo.org/fileadmin/user_upload/resources/Meeting-Report-of-the-JMP-Post-2015-Hygiene-Working-Group-May-2012.pdf

Overall vision / goal

Given the time constraints of the face-to-face meeting, the working group did not reach complete consensus on one over-arching hygiene goal, but in subsequent weeks narrowed the preliminary goals down to the following two:

- Good hygiene will be universally promoted and practiced.
- Hygiene (handwashing, food hygiene, menstrual hygiene management) will be universally recognized, promoted, and practiced as fundamental to good health, dignity and quality of life.

During the meeting, several participants noted that while the first goal is pleasingly short and concise, it runs the risk that people will interpret it to mean "handwashing" only and that menstrual hygiene management and food hygiene will be totally "lost" since it they are newer focus areas. The group also debated the need to include the rationale clauses contained in the second option (i.e., "as fundamental to good health, dignity and quality of life"). The group was split on this issue with some saying it is unnecessary for a simple goal statement and others saying it serves to clarify and attract the attention of the larger body of stakeholders.

Targets

Since the sub-groups were dealing with wide differences in the degree of development of their sub-topic area, their outputs were not uniform, but did reflect the needs and nature of the sub-topic. Both food hygiene and menstrual hygiene management are less well developed and, as such, had different starting points for the discussions.

[13] Background Paper on Measuring WASH and Food Hygiene Practices—Definition of Goals to be Tackled Post 2015 by the Joint Monitoring Programme, prepared by the London School of Hygiene and Tropical Medicine: http://www.wssinfo.org/post-2015-monitoring/working-groups/hygiene/

The working group agreed to use the following set of five criteria to evaluate and select their sub-topic targets and indicators: Measurability (including feasibility, cost of data collection, and potential for low/no bias); evidence of association with health and non-health benefits (social and economic); achievability; global relevance (bankability) and potential to address/correct discriminatory practices. While the subgroups were asked to provide only a yes-no determination on the criteria, the handwashing sub-group decided to use a rating scale of 0 to 3 (0 = none and 3 = substantial).

Handwashing

Handwashing is probably the most researched hygiene behavior in developing countries. Although rinsing hands with water is a common practice, the benefits associated with handwashing are largely attributed to the use of soap - a far rarer practice[14,15]. With the potential to save one million lives a year and costing $US 3 per DALY averted, handwashing with soap has been viewed as one of the most cost-effective way of reducing the global infectious disease burden[16]. Acknowledging the benefits of handwashing for reduction of diarrhea, acute respiratory infections (the two biggest infectious causes of death among children) and other diseases, the goal proposed by this sub-group was: "Handwashing with soap at critical times will be universally practiced".

The handwashing sub-group began their analysis of potential targets and indicators by considering the three categories of indicators: handwashing facilities, knowledge and behavior. Since universal practice was the goal, targets and indicators reflecting knowledge were immediately eliminated, since it is known that knowledge of how and when to practice handwashing corresponds poorly with actual behavior.

Since the presence of handwashing facilities is necessary to facilitate handwashing practice, universal access to handwashing facilities was proposed as the primary target. The evidence points to three main settings where access to handwashing facilities stocked with hand cleansing materials (e.g. soap and water, or waterless cleanser) could have considerable impact on handwashing behavior: households, schools and health care institutions. The group added birthing locations as a fourth setting, either facility-based or in the home, acknowledging that, while improving handwashing among birth attendants and caregivers could have a significant impact on newborn health outcomes, indicators on both access to handwashing facilities and actual practice would be difficult to measure in the home.

A second target focused on the universal practice of handwashing with soap at critical times by caregivers and school children. The five critical times are after risk of contact with fecal matter (defecation or cleaning a child who has defecated) and before handling food (food preparation, feeding someone and eating). Although indicators in this area are globally relevant, beneficial and achievable, collecting such data is difficult and expensive to achieve for nationally representative samples. For example, structured observation involves observation of handwashing behaviour at critical times, and recording this observation using a standardized format. The observer/

[14] Burton, M., et al., The effect of handwashing with water or soap on bacterial contamination of hands. *Int J Environ Res Public Health,* 2011. 8(1): p. 97-104.
[15] Curtis, V.A., L.O. Danquah, and R.V. Aunger, Planned, motivated and habitual hygiene behaviour: an eleven country review. *Health Educ Res*, 2009. 24(4): p. 655-73.
[16] Cairncross, S. and V. Valdmanis, Water supply, sanitation, and hygiene promotion. In: *Disease Control Priorities in Developing Countries (2nd Edition)*. New York: Oxford University Press. 771-792. 2006.

enumerator is in place in the household / school / other observation area observing the subjects' behavior for an extended period of time (typically 3-5 hours). While structured observation allows for objective measurement of handwashing behaviour, it also has some limitations. The validity of this method has been called into question because the behavior of the respondents might be substantially altered as a result of being observed. The method is time intensive and costly; typically structured observations last 3-5 hours and additional time may be needed for travel, preparation, and interaction with the family. In addition, previously trained field staff or additional training of staff is needed in order to carry out this method effectively.

A third target highlighted the importance of a comprehensive government handwashing policy to help promote access to handwashing facilities in institutions, and prioritization of handwashing behavior programs. It was agreed that a collective national hygiene policy target might be produced by the Hygiene Working Group, encompassing the policy targets of all sub-groups, rather than advocate for multiple hygiene targets/goals.

Target #1: Ensure universal access to handwashing facilities

Target #2: To halve the proportion of critical times when hands are not washed with soap

Target #3: Every government will have policies and programs in place to promote the practice of handwashing with soap

Menstrual Hygiene Management

Starting in adolescence, a woman will have an estimated 3,000 days of menstruation in her lifetime. Menstruation is a natural and beneficial biological phenomenon, yet its nature and the challenges of hygienic management have many health and social implications, with both economic and environmental impacts. Issues such as increased urbanization and the rise in formal schooling will challenge traditional methods for managing menses privately and successfully.

The first key discussion point concerned the proposed working definition of MHM in the Hygiene Working Group's background paper which focused on the ability to use clean and hygienic materials (changed at least once a day), and have access to soap and water for washing. Since the definition is limited to the hygiene behaviour, the group felt it was important that the proposed global targets and indicators incorporate the essential MHM-related components needed for this hygienic behaviour to occur. Otherwise there is a risk that investment will only be directed to that which is measured and the potential for behaviour change and ensuing benefits would not be realized. Both the personal MHM definition (the hygienic behaviour) and the public necessities of MHM (including safe and secure facilities, pragmatic information, materials and disposal) are needed. At a minimum, disposal should be incorporated into the existing definition.

The second point regarded the targets themselves. The group considered whether the MHM-related targets (and therefore investment/programs) should focus on the most at-risk populations (such as adolescent girls, girls and women in urban slums). However, the group concluded that insufficient evidence currently exists on girls and women's experiences in urban slums to make a decision on the target focus at this time.

Around the third point— the critical need for MHM information for girls in particular—the group discussed how to enable girls and women (and boys and men) to speak more openly about

menstruation and menstrual hygiene, as an important step toward ensuring that adequate MHM facilities (for changing, washing and disposal) and services (provision of information, sanitary materials, facilities and end disposal) are provided for girls and women. Therefore the group felt strongly that an indicator related to MHM information be proposed.

For the fourth point –the provision of menstrual materials (pads, cloths)—the group concluded that although the provision of materials may be relatively easy to monitor, there is a danger in having an indicator on materials (particularly if only one MHM-related indicator is selected), as programs might become skewed towards the provision of materials, and not address the equally important needs of facilities, disposal, and information, along with raising awareness and confidence amongst girls and women (and ultimately boys and men). In addition, the group felt that proposing an indicator (and programs) on MHM-related information and support would assist in tackling the taboos around menstruation, and increase the demand to ensure materials are made available to girls and women.

The fifth and final point discussed was the availability of appropriate water and sanitation facilities (including disposal) as essential for girls and women's MHM-related needs. The group felt that ensuring that adequate facilities are available in public places (such as work environments, transportation areas, schools) is critical.

The sub-group proposed the following goal: "Ensure all women and adolescent girls are able to manage menstruation hygienically and with dignity."

Target #4: By 2040 all women and adolescent girls are able to manage menstruation hygienically and with dignity

Food Hygiene

For the Food Hygiene Sub-group, food hygiene includes practices in the following areas:

- Food cultivation and handling of cultivated food products prior to sending them to the market;
- Food preparation (hand washing with soap before or during preparing food, maintaining a certain cooking temperature, washing utensils);
- Food handling (reducing cross-contamination between cooked and raw food, maintaining proper kitchen hygiene);
- Feeding (washing both hands with soap before feeding a child); and
- Food storage (storage at low temperature, re-heating before consumption).

The sub-group proposed the following goal: "Significantly reduce the food borne disease burden associated with food cultivation, handling, preparation, serving and storage." Food cultivation is preferred to food production as the latter may be interpreted as industrial food processing, which would be erroneous.

The sub-group suggested that two important target groups be considered to meet this goal: the food service industry and households. The food service industry needs to be included, as many of the food pathogens are introduced by food vendors, particularly in the informal sector. For food hygiene at the household level, the group focused its discussion on the adoption of recommended practices by caregivers of children under age two, given the vulnerability of this population,

particularly as complementary feeding is introduced. Appropriate food hygiene policies that cover households would make possible the implementation of food hygiene promotion for different target groups. If this target were adopted internationally, it would bolster the priority given to food hygiene and strengthen the case for integrating food hygiene across sectors. The group also understood that enforcing the implementation of these recommended policies will remain a challenge, and governments must have the tools and resources to make policy enforcement possible.

The group suggested that one of the indicators to meet the first target should be the integration of food hygiene into policies in different sectors, including agriculture, nutrition, education and health. Food hygiene is, in fact, cross cutting and the need to integrate food hygiene into different sectors reflects the nature of the discipline. It is only by integrating food hygiene into these different sectors that practices may eventually be adopted by large sectors of the population. The second target proposed by the sub-group pertains to the adoption of food hygiene practices. At both the food service and household levels, the subgroup agreed that the focus at the international level should be on WHO's five recommended steps to safer food: keep food clean; separate raw and cooked food; cook thoroughly; keep food at safe temperatures; and use safe water and safe raw materials. The group proposed that an antecedent to the adoption of food hygiene practices should be the training of outreach workers who would reach different target groups, such as the food service industry, particularly in the informal sector.

Target #5: By Year XX [to be determined], each country prioritizes food hygiene in policies and strategy

Target #6: By Year XX+ [to be determined], improved food hygiene behavior practiced by a significant proportion of the population involved in food preparation, handling and services.

Definitions

Health Centres: includes all the places WHO defines as health facilities: hospitals, health centres, clinics, health posts, dental surgeries, general practitioner settings, and home-based care (WHO 2008 Essential Environmental Health Standards in Health Care)

Schools: primary and secondary schools, boarding and day schools, rural and urban schools, and public and private schools (WHO, 2009 Water, Sanitation and Hygiene Standards in Low-cost Settings) plus day care centres, nurseries and kindergartens

Handwashing facility: A handwashing facility is a device to contain, transport or regulate the flow of water to facilitate handwashing. It may be fixed or movable.

Adequate handwashing facilities at home: handwashing facilities, with soap and water, available near sanitation facilities and where food is prepared or consumed

Adequate handwashing facilities in schools and health centres

Handwashing facilities, with soap and water, available inside or immediately outside sanitation facilities, where food is prepared or consumed, and in patient care areas

Menstrual hygiene management facilities are those that provide water and space for washing and cleaning the body during menstruation, and allow management of material for absorbing menstrual blood and disposal of used menstrual materials.

Adequate menstrual hygiene management facilities in schools and health centres:

- provide privacy for changing materials and for washing hands, private parts and clothes with soap and water
- include access to water and soap within a place that provides an adequate level of privacy for washing stains from clothes and drying re-usable menstrual materials include disposal facilities for used menstrual materials (from collection point to final disposal)

Indicators

Indicator options are listed for each target below.

Target #1: Ensure universal access to handwashing facilities

1. % of households with soap and water present at the designated handwashing facility
2. % of schools with adequate access to handwashing facilities with soap and water (all schools)
3. % of health care institutions with fully equipped handwashing facilities
4. % of birthing locations with fully equipped handwashing stations

Target #2: To halve the proportion of critical times when hands are not washed with soap

1. % of critical times when caregivers wash their hands with soap
2. % of critical times when school children wash hands with soap
3. % of critical times when health care providers wash hands with soap
4. % of critical times when birth attendants wash hands with soap

Target #3: Every government will have policies and programs in place to promote the practice of handwashing with soap

1. Every government will have a comprehensive hygiene promotion policy

Target #4: By 2040 all women and adolescent girls are able to manage menstruation hygienically and with dignity

1. Percentage of schools and primary health facilities distributing/disseminating accurate, contextually appropriate, pragmatic menstrual management information
2. Percentage of teachers and healthcare workers who can answer a set of basic questions on MHM
3. Percentage of public facilities, schools, institutions, transport hubs and markets that provide gender separated latrines with water and soap and disposal facilities for menstrual materials

Target #5: By Year XX [to be determined], each country prioritizes food hygiene in policies and strategies

1. Number of countries with appropriate policies, strategies and/or national guidelines for food hygiene in place
2. Number of countries with food hygiene policies/guidelines integrated into other development sectors (nutrition, WASH, education, agriculture)

Target #6: By Year XX+ [to be determined], improved food hygiene behavior practiced by a significant proportion of the population involved in food preparation, handling and services

1. Number of food outbreaks associated with food handling, preparation or storage (decline)
2. Percentage of caregivers of children under 24 months receiving appropriate food hygiene education
3. Number of people involved in food preparation, handling and services receiving appropriate food hygiene education
4. Percentage of caregivers of children under 2 practicing recommended food hygiene behaviors

Some indicators were dropped in subsequent discussions because they were merged with others, for example birthing centres were merged with health centres since the definition of health centres adopted by the group is relatively wide. Others would require costly measurement methods which would, most likely, not be adopted at the global level. This was the case with indicators pertaining to handwashing practices under Target 2 since they would require structured observation. Others indicators were eliminated since they were considered to be process rather than outcome indicators, those favored by the group. This was the case for indicators pertaining to policies.

Hygiene working group members

Table A9. Members of the JMP post-2015 hygiene working group

Name	Organization	Sub-group
Fred Arnold	ICF International)	Handwashing
Peter K. Ben Embarek	World Health Organization	Food hygiene
Zulfiqar Bhutta	Aga Khan University	Food hygiene
Claudio Franco Lanata de las Casas	Institute of Nutrition Research; US Navy Medical Research Unit, Peru	Food hygiene
Valerie Curtis	London School of Hygiene and Tropical Medicine	Handwashing
Jacqueline Devine	Water and Sanitation Program	Handwashing
Kalina Duncan	U.S. Department of State	Handwashing
John Ezenwa Ehiri	Mel & Enid Zuckerman College of Public Health, University of Arizona	Food hygiene
Catherine Greenland	London School of Hygiene and Tropical Medicine	Food hygiene
Sonya Hammons	U.S. Department of State	Food hygiene
Orlando Hernandez	USAID/WASHplus Project	Food hygiene
Guy Hutton	JMP / World Health Organization	Handwashing
Khairul Islam	WaterAid, UK	Handwashing
Rolf Luyendijk	UNICEF	Menstrual hygiene management
Therese Mahon	WaterAid, South Asia	Menstrual hygiene management
Alana Potter	IRC International Water and Sanitation Centre	Menstrual hygiene management
Pavani K. Ram	Dept. of Social and Preventive Medicine, University of Buffalo	Handwashing
Virginia Roaf	UN Special Rapporteur	Menstrual hygiene management
Abdou-Salam Savadogo	World Health Organization	Handwashing
Marni Sommer	Mailman School of Public Health, Columbia University	Menstrual hygiene management
Ousmane Toure	Bamako University, Mali	Food hygiene
Merri Weinger	USAID	Handwashing
Monica Woldt	FANTA III Project	Food hygiene

The working group is grateful to Dr. Michael Doyle, from the Centre for Food Safety at the University of Georgia, who served as a resource person for the Food Hygiene Subgroup.

Annex 4. Equity and Non-Discimination (END) Working Group

Introduction

The Millennium Development Goals (MDGs) embody a set of concrete, time-bound goals and targets that are measurable through indicators. As the 2015 deadline for these goals approaches, discussions on the architecture of the post-2015 development framework have begun. While the MDGs have produced many important gains for people around the world, these improvements have often eluded the marginalized, and those experiencing discrimination and exclusion.

One of the challenges for the post-2015 development agenda is to improve the analysis of different forms of discrimination in access to water and sanitation and to design an appropriate methodology to monitor them. Inequalities are present in every country of the world and many patterns of discrimination, such as those based on gender, age, and disability status are consistent across the world. Other inequalities such as those based on ethnicity or caste vary across countries, but structural causes and patterns for these inequalities can be identified across the world. Hence, tracking the impact of these patterns and trends on water and sanitation across countries through global monitoring is necessary. Such monitoring provides an advocacy tool for the most disadvantaged and marginalized, encouraging targeted efforts to improve their situation. Given the multi-dimensional nature of poverty and corresponding inequalities, the post-2015 development framework must go beyond disparities in income.

While the focus in sectoral policies is often on the general notion of equity, this concept must be paired with the human rights principles of non-discrimination and equality that encompass legally binding obligations. In terms of monitoring, these principles require States to look beyond average attainments and to disaggregate datasets in order to allow for identification of disparate impacts or less favorable treatment over time. Substantive equality requires the adoption of affirmative action or temporary special measures where barriers exist and persist, and which lead to denial of rights to individuals and groups. However, it must be emphasized that equal does not mean the same and does not indicate identical treatment in all cases. Human rights law requires equal access to basic services, but this does not mean that everyone benefits from the same technical solutions or the same type of service.

Embracing the human rights principles of non-discrimination and equality as well as the equity approach must be central to any post-2015 framework as it provides the necessary political foothold to prioritize a State's legal obligation to combat discrimination while also underscoring areas where human rights law has been traditionally less robust, particularly in relation to income disparities.

For the post-2015 development framework, the water and sanitation sector has been at the forefront of transforming its commitment to equity and non-discrimination into concrete recommendations. The UNICEF-WHO Joint Monitoring Programme (JMP) has created four working groups: the Equity and Non-Discrimination (END) Working Group alongside three sub-sector working groups on Water, Sanitation and Hygiene (WASH). The purpose of the END Working Group is to advise on how proposed goals, targets and indicators (GTIs) for the post-2015 development framework can be formulated to address inequalities and discrimination. It is comprised of experts from the water and sanitation sector, statisticians and human rights

specialists and is chaired by the United Nations Special Rapporteur on the Human Right to Safe Drinking Water and Sanitation, Catarina de Albuquerque. The END Working Group's Final Report delivers recommendations regarding the post-2015 GTIs in three areas:

a) An Equality Checklist to be used as a tool for those engaged in the planning, discussions and negotiations for the post-2015 architecture to ensure that equity, non-discrimination and equality are fully addressed and ultimately adopted in WASH GTIs.
b) Recommended elements to be included in the post-2015 GTIs alongside the rationale for their inclusion.
c) Recommendations on measurement and data sources emphasizing the action needed to improve and expand data sources to ensure further integration of equality and non-discrimination issues in the WASH sector.

The working group met two times in Lisbon, in February and in May 2012. Several other telephone meetings were held. The members of the END working group are listed in Table A10.

The full report of the END working group is available at:
www.wssinfo.org/fileadmin/user_upload/resources/JMP-END-WG-Final-Report-20120821.pdf

A tool for integrating equality and non-discrimination: the equality checklist

The END Working Group offers the Equality Checklist as a tool for sector specialists and policymakers to formulate and evaluate proposed GTIs for WASH. The Checklist allows decision-makers to determine whether issues of equity, equality and non-discrimination are adequately addressed given the demands and limits of global monitoring. Through the Checklist, the END Working Group recommends that the GTIs:

Equality Checklist

When examined as a whole, do the goals, targets, and indicators:

- ✓ prioritize basic access and focus on progressive realization toward safe and sustainable water, sanitation and hygiene for all, while reducing inequalities?
- ✓ address spatial inequalities, such as those experienced by communities in remote and inaccessible rural areas and slum-dwellers in (peri-)urban areas?
- ✓ focus on inequities, shining the light on the poorest of the poor?
- ✓ address group-related inequalities that vary across countries, such as those based on ethnicity, race, nationality, language, religion, and caste?
- ✓ attend to the impacts of individual-related inequalities that are relevant in every country of the globe, such as those based on sex/gender, age, disability, and health conditions imposing access constraints—as they are experienced both inside and beyond the household? Do they address menstrual hygiene management?

Recommendations on elements for goals, targets and indicators

The END Working Group recommends elements to be included in the post-2015 architecture, including:

- A stand-alone goal on equality: Including equality as an overarching, cross-cutting concern at the goal level, while integrating attention to inequalities across sectors, will ensure that the elimination of inequalities will be addressed under all the substantive targets.
- Attention to both universality and elimination of inequalities in the WASH goal: Universality is about ensuring access for all—even the hardest to reach—without exception. However, universality does not by itself guarantee equal access and is insufficient to ensure priority for the most disadvantaged. Universal access at a specified target date would continue to bring focus on aggregate outcomes without setting incentives to reduce inequalities through targeting the most disadvantaged. To the contrary, it may result in incentives for States to continue to prioritize the relatively well-off and easy-to-reach in order to demonstrate rapid progress towards the goal of universal access. Under that scenario, the most disadvantaged would often be the last to be reached. The future goals and targets should therefore explicitly embrace equality alongside universality. Emphasizing equality underscores both the need to eliminate discrimination and to affirmatively ensure equality by adopting special measures where required.
- Targets and indicators that require the elimination of equality gaps by targeting the most disadvantaged groups: Targets and indicators should be crafted that specifically call for the reduction and ultimate elimination of gaps in access through targeting of the "most disadvantaged groups" while retaining attention to improvements for the lowest quintile. This should be linked to indicators concerning the rates of progress in reducing inequalities between specified groups and the most disadvantaged.

  Regarding the term the "most disadvantaged group", the END Working Group proposes that targets and indicators be crafted that will allow for direct monitoring at the global level of the progress of populations that experience discrimination. Since ethnic, religious, national and other groups vary by country, this term allows for national specificity while still making global monitoring possible. It is recommended that States themselves be required to identify the specific groups to be monitored on the global level using a participatory process aimed at determining which groups experience discrimination and exclusion. Groups that might be chosen for monitoring include those defined by ethnicity, race, religion, language or caste as well as spatially defined groups such as slum-dwellers, residents of specific geographic areas and other nationally-specific groupings.
- Specific language in targets and indicators requiring reduction in intra-household inequalities: The MDGs paid little attention to how inequalities express themselves within the household, and no effort to monitor improvements in such disparities related to WASH. The END Working Group recommends that targets and/or indicators focusing on closing gaps in the actual use of WASH by all individuals within a household be included in the future framework.

- Targets aimed at reducing inequalities due to individual status and indicators requiring monitoring of equality in access beyond the household: Targets and indicators should be crafted to focus specifically on equality in accessing WASH in educational institutions and health facilities, as well as in workplaces and detention facilities, as feasible. Research shows that groups that commonly experience discrimination also suffer disproportionate burdens in public places. The END Working Group recommends that relevant data sources be carefully mined and that language concerning "access beyond the household" be understood to allow for monitoring of equality dimensions in locations other than health facilities and schools as soon as such data becomes available.

- Language in targets or indicators capturing menstrual hygiene management**:** Because menstrual hygiene management (MHM) has such a strong impact on gender equality and women and girls often experience extreme barriers managing menstruation adequately, a target or indicator(s) should be crafted to capture the ability of all women and adolescent girls to manage menstruation hygienically, in safety, and with dignity.

Recommendations on measurement and data sources

Attention to equality and non-discrimination in the WASH sector has substantial implications for the methodology and focus of monitoring as well as the collection of data necessary for that monitoring. The current lack of data in this regard is not accidental and should not be used as an excuse against future monitoring as it is often a lack of political will that leads to the neglect of data. The END Working Group therefore calls for data to be collected to integrate equity, equality and non- discrimination. Political commitment to better and more accurate data collection is essential to identify and monitor inequalities, and most importantly, to make progress to end them.

The END Working Group discussed in depth the creation and adoption of various tools for gathering data relevant to measuring inequalities. The current JMP monitoring system relies chiefly on household surveys and census data. This system was carefully developed over many years and represents important improvements over earlier systems; it will likely be retained in post-2015 approaches. The proposals presented here are intended as additions and extensions to the main JMP data sets. The END Working Group recommends that JMP:

- Make appropriate use of tools for measuring inequalities, particularly gap analyses that are especially helpful in conveying equity-related information. For example, a gap analysis comparing the rate of coverage in the best-off group and the rate of coverage for the worst-off group, or between the worst-off and the general population, serve this purpose.
- Ensure that materials created to guide the implementation of WASH targets and indicators address human rights concerns related to data collection, thus ensuring that those experiencing group-related inequalities and inequalities due to individual status discrimination are adequately protected, in particular through using participatory processes for identifying the most disadvantaged groups.
- Work to improve household data sources, especially the Demographic and Health Surveys (DHS) and Multiple Indicator Cluster Surveys (MICS), including by:

- Amending household surveys to allow for analysis of intra-household equality dimensions through adding a question on whether facilities are actually used by all household members. This would be a rapid and relatively simple way to obtain information about the range and prevalence of barriers experienced by, inter alia, persons with disabilities, older persons, women and girls, and those with health-related mobility restrictions. A follow-up question about why specific members of the household do not use the facilities would provide valuable data about how such barriers manifest themselves—data crucial to determining how they might be removed.
- Adding a question to surveys concerning menstrual hygiene management; focusing on whether all menstruating women and adolescent girls in the household have access to the facilities and materials they need in order to manage menstruation hygienically, with dignity, and in safety.
- Improving the categorization and sampling of slums. A separate sample of slums should be pursued to enable comparative assessment of services in slums and non-slum areas.

- Expand data sources to ensure equality dimensions are captured, including access beyond the household for disadvantaged groups and those experiencing inequalities related to individual status:

  - Pursue analysis of information about small minority groups and other groups through the creation and use of a standard procedure manual that could be used by researchers. Such a manual should contain guidelines for conducting studies of small marginalized groups aimed at ensuring an unbiased sample that would allow for comparison against existing data as a control group in order to detect inequalities.
  - Improve data collection and analysis concerning slums as current methods are inadequate and often inaccurate in relation to water and sanitation. Areas that need improvement include assessing service levels for different dimensions of slums and the need for assessing slums by their spatial dimension.
  - Increase use of longitudinal data to understand change over time as it is not currently used in global WASH monitoring. Such data is necessary for illuminating the dynamics of discrimination and exclusion by examining the impacts of policy and other intervening events on a population.
  - Make use of administrative or provider data to explore ways to supplement household surveys to provide greater context.
  - Make use of data about access beyond the household. Data about public access is valuable when assessing inequalities linked to sex/gender, age and disability, especially considering that the lack of WASH access in these settings disproportionately affects these groups.
  - Tap into innovative and emerging data sources and methods such as crowd-sourcing for reporting and predicting users of water and sanitation services, and the use of mobile devices to obtain data.

Using the Equality Checklist as a means to assess the goals, targets and indicators as a whole helps to ensure the adequate integration of non-discrimination and equality into the post-2015 MDG WASH architecture. In turn, the END Working Group's recommended elements for WASH GTIs demonstrate how the Checklist can be used to do this. Finally, since attention to non-discrimination and equality has implications for monitoring and data collection, the END Working Group's recommendations on measurement and data sources outline how equity, equality and non-discrimination can be effectively monitored. A commitment to better and more accurate data collection as part of a global framework is essential to identifying and monitoring inequalities, a crucial step toward making progress to end them.

END working group members

Table A10. Members of the JMP post-2015 END working group

Name	Affiliation
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David Bradley	Professor Emeritus, London School of Hygiene and Tropical Medicine
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Nicolas Fasel/ Grace Sanico Steffan	Human Rights Officer, Indicator Project, OHCHR
Khondkar Rifat Hossain	Statistician, JMP Unit, WHO
Guy Hutton (ex officio)	JMP Post 2015 Process Coordinator
Rolf Luyendijk	Sr. Statistics and Monitoring Specialist, JMP Team, UNICEF
Meera Mehta	Professor Emeritus, CEPT University
Archana Patkar	Programme Manager Networking and Knowledge Management, WSSCC
Virginia Roaf	Consultant to the Special Rapporteur
Shea O. Rutstein	ICF International (DHS Survey)
Ignacio Saiz	Executive Director, Center for Economic and Social Rights
Meg Satterthwaite	Professor of Clinical Law, New York University School of Law
Madoka Saji	Assistant to Special Rapporteur, Office of the High Commissioner for Human Rights
Marcus Stahlhofer	Human Rights Adviser, Department of Child and Adolescent Health, WHO
Inga Winkler (WG Coordinator)	Legal Adviser to the Special Rapporteur, German Institute for Human Rights
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