

Water, sanitation and hygiene: determining a health goal that works for all

Executive summary

Access to basic drinking water, sanitation and hygiene (WASH) is vital to improving health and quality of life globally. As discussions on the post-2015 framework and the Sustainable Development Goals (SDGs) reach their crucial final phase, WaterAid is calling for WASH to be recognised as a key influential factor to be closely integrated into any health goal and priorities taken up by governments and civil society.

WaterAid welcomes the emphasis given to water, sanitation and hygiene in the work of the UN Secretary General's High Level Panel, the Open Working Group on Sustainable Development Goals, and in national and regional thematic consultations.

In particular, the proposals of the Open Working Group outlined several targets where water, sanitation and hygiene should be integrated at the indicator level. In the Annex to this document, we propose that a series of outcome and determining indicators should be used to ensure strong links and mutual accountability between the health and WASH sectors.

Recommendations

We recommend that focus is given to ensuring successful integration between the different goal areas, and in particular between proposed targets on health and wellbeing and WASH indicators:

- Targets related to the 'unfinished business' of the existing Millennium Development Goals (MDGs), such as maternal and child mortality, include indicators associated with WASH coverage or access, alongside outcome indicators related to reducing specific diseases. For example, this would include measuring diarrhoeal deaths in a child mortality target.
- Targets related to universal health coverage recognise the importance of WASH in prevention and treatment of disease, specifically including indicators to measure access to WASH both in and outside health-care settings.

Discussions should build on the 2013 thematic consultation on health

The 2013 thematic consultation¹ on health in the post-2015 agenda, co-convened by the World Health Organisation (WHO) and UNICEF and supported by the governments of Botswana and Sweden, successfully created a consensus around the importance of addressing health holistically and ensuring that entry points for other sectors were clear within any overarching health goal.

WaterAid believes that this consensus is an important starting point and should be the foundation for debates on health among member states. WaterAid recommends that the following are incorporated into the framing of goals and targets relating to health:

- 1 Health should be addressed through the inclusion of a set of goals that deal with health across several dimensions. The goals should be framed around eradicating extreme poverty and ensuring sustainable wellbeing for all. The primary focus of these goals should be ensuring everyone is empowered to live healthy lives.
- 2 Health goals and targets should focus on maximising health at all stages of life. To do this successfully it is crucial that goals and targets recognise the role of various sectors and actors that are beyond the remit of the health sector, to ensure the attainment of sustainable and equitable health provision. This will create entry points for measures that can improve access to WASH, and for other sectors such as education.
- 3 Health goals and targets should ensure that health services are provided for all groups and focus on the inclusion and targeting of the most marginalised people.

Why water, sanitation and hygiene are important to fighting infectious disease

Despite global progress in the reduction of child mortality, infectious diseases are still the largest threat to the health of our most vulnerable citizens – young children. Diarrhoea is the third biggest killer of children under five in Sub-Saharan Africa,² and almost 90% of cases of diarrhoea are caused by poor WASH.³ 50% of under-nutrition is due to lack of WASH,³ and under-nutrition is an underlying risk factor for around 30% of under-five deaths, because it makes children susceptible to infectious diseases and creates its own negative health outcomes.⁴ For example, repeated episodes of diarrhoea can predispose under-nourished children to pneumonia.⁵ Poor hygiene and sanitation, and associated diarrhoea, also contribute to stunting and inhibited cognitive development in millions of children worldwide.

Similarly, parasitic illnesses, such as soil-transmitted helminths, arise from a lack of access to WASH and can lead to under-nutrition, stunting, cognitive delays, diarrhoea, and other morbidities and disabilities. Although parasitic illnesses mostly affect children, adults are also at risk of these so-called neglected tropical diseases (NTDs). Without direct links to and accountability for WASH in health goals, disease control, elimination and eradication will not be successful.

In addition to having a substantial impact on child survival and wellbeing, WASH is also crucial for infectious disease prevention in adults. For example, a lack of access to water, sanitation, hygiene supplies and hygiene behaviours at births contributes to sepsis, which accounts for 8% of the global maternal mortality burden. For people living with HIV, a hygienic environment is especially important for care, and good nutrition is crucial to treatment. Poor or no access to WASH can lead to a host of life-threatening infectious diseases and conditions, including high rates of diarrhoea.

2.5 billion people around the world still do not have access to sanitation,⁶ causing water sources, homes and surrounding environments to become contaminated, and contributing to poor health and preventable child deaths. Despite ample evidence that hygiene is, as the World Bank has said, the most cost-effective health intervention available, how many people consistently engage in key hygiene behaviours is not well known.⁷ It is very difficult to learn what is effective in hygiene without setting targets to prioritise and measure these services. Ensuring that WASH is fully incorporated and measured within the targets of any goal on health is absolutely vital to its overall success.

WASH is crucial to the ‘unfinished business’ of the MDGs: integrating WASH in targets on maternal mortality, child mortality and communicable diseases

The discussions of the Open Working Group showed that significant consensus exists among member states to tackle the ‘unfinished business’ of the existing MDGs. This includes maternal mortality, ending preventable newborn and child deaths and combating HIV or AIDS and NTDs.

WaterAid recommends that, as member states begin their full negotiations on the final goals and targets, any health goal should include targets that reduce child and maternal mortality, as well as tackling infectious diseases, and that these are underpinned by clear indicators that measure a variety of outcome and coverage issues including WASH access. For WASH, this would include indicators for improving behaviour (such as handwashing with soap and reducing open defecation), improved practice information (such as hygiene and sanitation promotion or access to health promoters and other health-care workers), and, crucially, improved environments

(universal access to water, sanitation and hygiene for households, schools and health-care facilities).

Incorporating indicators for access to water, sanitation and hygiene in health-care settings is of particular importance when addressing maternal and child mortality during birth. A recent study by the London School of Hygiene and Tropical Medicine showed that 43% of births in Tanzania take place at home, and that only 1.5% of home births take place in water-safe and sanitation-safe conditions, i.e. homes that have both safe drinking water and adequate sanitation. Only 44% of births at health-care facilities are water-safe and sanitation-safe, and only 24% of delivery rooms are water-safe and sanitation-safe.⁸

Several existing initiatives and frameworks are very relevant to completing the ‘unfinished business’. In particular, the indicators in the Integrated Global Action Plan on Pneumonia and Diarrhoea (GAPPD)⁹ and the Every Newborn action plan¹⁰ will be crucial in supporting potential targets on maternal and child mortality. Our proposed indicators, as shown in Annex 1, refer to both frameworks.

The Open Working Group in particular has called for the post-2015 framework to include a target that covers NTDs. The need to link WASH with NTD control, elimination and eradication strategies is uncontested. For example, WHO published *A roadmap for implementation: accelerating work to overcome the global impact of neglected tropical diseases 2012*¹¹ outlining six key NTD interventions which feature access to basic water, sanitation and hygiene. The existence of WASH in present frameworks to combat NTDs emphasises the need to include indicators relating to WASH access.

Universal health coverage (UHC) requires a foundation of WASH access

Delivering on the Sustainable Development Goals’ ambition of eradicating extreme poverty is only possible if no one lives without access to health care.

However, it is vital that implementation of UHC goes beyond access to health-care services and addresses prevention and treatment of disease, and care and support. Building in recognition of how environmental determinants (such as WASH) shape health outcomes and the quality of health-care services will be vital to the development of a fully functional health goal.

Discussions around UHC focus particularly on preventive and curative measures. WASH plays an important part in both dimensions, and we recommend that WASH access indicators are included accordingly.

Preventive measures

The promotion of hygiene practices, such as handwashing with soap and safe food preparation, and feeding practices is a crucial element of primary health-care for the prevention of diarrhoea, pneumonia and other infections. Promotion of these practices is also the most cost-effective intervention for high-burden diseases in low-income and middle-income countries.⁷

Effective delivery of WASH services is a primary barrier to disease transmission. The GAPPD clearly states the importance of WASH provision alongside other life-saving interventions.⁹ WASH can also have an important role in other preventive aspects. For example, recognition is increasing that vaccine response can be weakened if a child receiving a vaccine has enteric infections, including environmental enteropathy, or diarrhoea.¹²

Treatment measures

Access to WASH is important in the provision of good-quality care and the management of disease, both in terms of care provided in health-care facilities and care or self-care at home.

People attending health-care facilities are often especially susceptible to disease and infection. A systematic review of health-care associated infections (HAIs: infections contracted in the health-care setting that were not present at the time of admission) in Africa found some countries with HAI infection rates of 45.6%.¹³ HAI rates are closely linked to WASH,¹⁴ and hygiene in health-care facilities is fundamental to infection prevention and control. The absence of adequate water and sanitation infrastructure in health-care facilities makes maintenance of appropriate hygiene practices extremely difficult, even when knowledge and policies exist. WASH should also be considered in terms of health issues for which the main strategy is to increase use of health-care services, e.g. encouragement of giving birth in health-care facilities is one of the key strategies for reducing maternal mortality.

Because globally 8% of maternal mortality is caused by sepsis,¹⁵ the absence of sufficient infection prevention and control measures in health-care facilities should be of particular concern in terms of attempts to redress slow progress towards reducing maternal mortality globally.

Health services are also key in bringing about healthy and rehabilitative behaviours related to WASH as part of the overall care package or treatment plan. People with leprosy, for example, need to be able to practise good hygiene to manage the disease, and must take medicines with safe water. Both the physical disabilities and social exclusion that result from leprosy can limit access to water and sanitation, negatively affecting an individual's ability to manage the disease.

In another example, with lymphatic filariasis (a highly debilitating and incurable condition), WASH must form part of a basic minimum package for self-care, including

washing affected body parts with soap and clean water, exercise, elevation and inspection and treatment of skin lesions. Evidence shows the frequency of acute attacks significantly decreases after the introduction of basic minimum care.¹⁶

Conclusion and recommendations

Access to basic water, sanitation and hygiene are crucial factors in enabling everyone to lead healthy lives. Inadequate WASH access is the major contributory factor to the third largest killer of children in Sub-Saharan Africa, therefore we cannot expect a goal on improving health to succeed without integration of WASH.

If the post-2015 framework and Sustainable Development Goals are to truly offer a transformative shift and learn from the shortcomings of the MDGs, creating separate goals for health, water and sanitation will not be enough. The effective integration of different goals and targets must be at the core of the new framework.

WaterAid recommends that any goals and targets focused on health should include indicators for WASH coverage and that:

- Targets related to the unfinished business of the existing MDGs, such as maternal and child health, should include indicators relating to WASH coverage or access, alongside outcome indicators relating to reducing specific diseases. For example, this would include measuring diarrhoeal deaths of children alongside access to WASH.
- Targets related to the new agenda of universal health coverage should recognise the importance of WASH in promotion, prevention, cure and rehabilitation. This would mean specifically including indicators to measure access to WASH, both in and outside health-care settings.

Annex 1 outlines outcome and determining indicators that we believe member states should consider in the development of the Sustainable Development Goals and targets. These indicators are drawn from proposals made by UN Women,¹⁷ the Every Newborn Action Plan,¹⁰ the Global Action Plan on Pneumonia and Diarrhoea,⁹ WHO¹¹ and the WHO/UNICEF Joint Monitoring Programme facilitated WASH technical expert consultation.¹⁸

Annex 1: Indicative outcome and determining indicators mapped against the Open Working Group’s proposals for a health goal and related targets

Goal: to ensure healthy lives and promote wellbeing for all at all ages

<p>Target 3.1: By 2030, reduce global maternal mortality ratio to fewer than 70 per 100,000 livebirths.</p>	
<p>Background: A safe birth environment, in health-care facilities and homes, that protects mothers from infection is essential to improve maternal health outcomes, and service use and overall quality of care.</p>	
<p>Outcome indicators</p>	<p>Determining indicators</p>
<p>Access to safe birth conditions</p> <ul style="list-style-type: none"> Percentage of homebirths attended by skilled attendants where clean practices are applied (Every Newborn Action Plan).¹⁰ Proportion of births attended by skilled health personnel (UN Women).¹⁷ 	<p>Access to safe birth conditions</p> <ul style="list-style-type: none"> Percentage of population using basic drinking water, percentage using basic sanitation, percentage with basic handwashing facilities with soap and water. Percentage of health-care facilities with basic water, sanitation and handwashing facilities in delivery areas or wards (JMP).¹⁸ Percentage of population using basic drinking water, percentage using basic sanitation, percentage with basic handwashing facilities with soap and water. Percentage of health-care facilities with basic water, sanitation and handwashing facilities in delivery areas or wards (JMP).¹⁸
<p>Target 3.2: By 2030, end preventable deaths of newborns, infants and under-five children.</p>	
<p>Background: A clean and safe birth environment is essential to protect newborns from infection – not only the home environment but also the hygiene practices of birth attendants. Further, adequate water, sanitation and hygiene facilities and practices are primary barriers to common childhood health problems such as pneumonia and diarrhoea, and contribute to reduction of undernutrition.</p>	
<p>Outcome indicators</p>	<p>Determining indicators</p>
<p>Improving care of newborns</p> <ul style="list-style-type: none"> Percentage of homebirths taking place with skilled care and clean practices (Every Newborn Action Plan).¹⁰ 	<p>Improving care of newborns</p> <ul style="list-style-type: none"> Percentage of population using basic drinking water, percentage using basic sanitation, percentage with basic handwashing facilities with soap and water at home and health facilities (JMP).¹⁸

<p>Reducing deaths from diarrhoea and pneumonia</p> <ul style="list-style-type: none"> • Reduce mortality from diarrhoea in children younger than five years to fewer than one per 1,000 livebirths (GAPPD).⁹ • Reduce mortality from pneumonia in children younger than five years to fewer than three per 1,000 live births (GAPPD).⁹ 	<p>Reducing deaths from diarrhoea and pneumonia</p> <ul style="list-style-type: none"> • Percentage of population using basic drinking water, percentage using basic sanitation, percentage with basic handwashing facilities with soap and water (JMP).¹⁸
<p>Target 3.3: By 2030 end HIV/AIDS, tuberculosis, malaria, and neglected tropical diseases (NTDs), and combat hepatitis, waterborne diseases and other communicable diseases.</p>	
<p>Background: WASH underpins prevention of most NTDs. It is also fundamental to the management of morbidity and prevention of disabilities associated with some NTDs. Waterborne disease outbreaks occur in unsanitary conditions; WASH interventions underpin efforts for sustained outbreak prevention and control.</p>	
<p>Outcome indicators</p>	<p>Determining indicators</p>
<p>Ending NTDs</p> <ul style="list-style-type: none"> • Eradication of dracunculiasis (2015); eradication of yaws (2020) (WHO).¹¹ • Elimination of blinding trachoma, lymphatic filariasis and schistosomiasis by 2020 (WHO).¹¹ • Intensified control of dengue and soil-transmitted helminthiasis (intestinal worms) (WHO).¹¹ <p>Control and prevention of waterborne diseases</p> <ul style="list-style-type: none"> • Eliminate cholera as a public health threat. • Reduce burden of cholera as far as possible. • Eliminate cholera deaths. <p>(Goals being considered by WHO Global Task Force on Cholera Control)</p>	<p>Ending NTDs</p> <ul style="list-style-type: none"> • Percentage of population using basic drinking water, percentage using basic sanitation, percentage with basic handwashing facilities with soap and water, percentage with sufficient access to water for hygiene purposes (JMP).¹⁸ <p>Control and prevention of waterborne diseases</p> <ul style="list-style-type: none"> • Percentage of population using basic drinking water, percentage using basic sanitation, percentage with basic handwashing facilities with soap and water, percentage with sufficient access to water for hygiene purposes (JMP).¹⁸
<p>Target 3.6: Achieve universal health coverage, including financial risk protection, access to high quality essential health-care services, and access to safe, effective, high quality and affordable essential medicines and vaccines for all.</p>	
<p>Background: WASH underpins the ability of countries to deliver both preventive and treatment aspects of universal health coverage.</p>	

Outcome indicators	Determining indicators
<p>Health service coverage</p> <ul style="list-style-type: none"> • Percentage coverage with a set of tracer interventions for prevention services. • Percentage coverage with a set of tracer interventions for treatment services. 	<p>Health service coverage</p> <ul style="list-style-type: none"> • Percentage of population using improved drinking water, percentage using improved sanitation, percentage with basic handwashing facilities with soap and water, percentage with sufficient access to water for hygiene purposes (JMP).¹⁸ • Percentage of health-care facilities with basic water, sanitation and handwashing facilities (JMP).¹⁸

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