



WASHing Away Poverty

How water, sanitation and hygiene contribute to improved child and maternal health

A report from Micah Challenge Australia

Micah Challenge →

HALVE POVERTY BY 2015

"Most of us take clean water and sanitation facilities for granted. It is not right that today 900 million members of our human family do not have access to safe water and that about 2.6 billion do not have improved sanitation facilities. These are fundamental basic services that are necessary for good health and for the well-being of individuals so they can live the kind of lives that they have reason to value."

Foreign Minister Kevin Rudd, 2011¹



EXECUTIVE SUMMARY

The Millennium Declaration of 2000 catalysed more attention and international support to tackle the problem of global poverty than had ever been seen previously. The declaration contained eight Millennium Development Goals (MDGs) that together provided a beacon to guide efforts to halve income poverty and dramatically improve human wellbeing by the year 2015. Globally, progress has been made on every goal. Since 1990 developing regions have seen the proportion of their people:

- living in poverty fall from 46% to 27%
- suffering from hunger decline from 30% to 23%
- with access to clean water increase from 72% to 84%
- living with diseases such as malaria, polio and HIV/AIDS stabilise and in many instances begin to decrease.²

Yet despite this progress, many of the MDGs remain off track. Of particular concern is the insufficient progress made on the health goals, MDG 4, focused on child mortality and MDG 5, focused on maternal mortality. **Tragically, 8.1 million children still die each year before their fifth birthday, and almost 1,000 women die each day due to complications in pregnancy.** 2.2 million of these children and almost 300 of these women could be saved if these goals were on track.³

This report demonstrates that WASH (access to clean **WA**ter, basic **S**anitation and **H**ygiene), provides a key with which we can unlock huge progress on child and maternal health. In addition to the substantial health benefits, WASH itself is included within the MDGs, specifically MDG 7 (c). Despite this, the WASH sector remains under resourced and severely neglected. On current trends, it will be the last MDG target to be achieved.

The World Health Organisation estimates that by addressing WASH we could prevent 28% of all child deaths, or in other words we could save the lives of more than two million children each year.⁴ In addition, thousands of mothers who die from preventable infection and inadequate nutrition could be saved by improving access to WASH.

Making significant improvements could be done at a relatively low cost. The World Bank estimates that WASH, particularly sanitation and hygiene, are among the most cost effective public health interventions available. It's not only the health benefits from this investment that are substantial, but the economic benefits too. The World Health Organisation (WHO) approximates that for every dollar invested in WASH, eight dollars is returned to a nation's economy.

In this report we call on the Australian Government to do its fair share to fix the global WASH crisis. Millions of children and countless mothers are depending on it.

MICAH CHALLENGE POLICY PROPOSALS

1. Make a timetabled commitment for the foreign aid budget to reach 0.7% GNI.
2. Increase health spending to approximately 20% of the aid budget (not including WASH).
(This 20% figure represents the old AusAID accounting standard, where health and WASH were accounted for separately. Under the new accounting standard, WASH is counted as health spending, in which case total health spending should account for approximately 25% of the aid budget.)
3. Provide WASH access for 8.8 million people each year by increasing aid to water and sanitation to \$500m by 2015.
4. AusAID to report separately on allocations made to sanitation and water and ensure that at least half of the WASH budget is spent on sanitation.
5. Ensure that WASH is appropriately integrated into aid programs for health and education.

INTRODUCTORY NOTES (INCLUDING RELEVANT MDG TARGETS)

MDG 1: Eradicate Extreme Poverty and Hunger

Target 1a: halve, between 1990 and 2015, the proportion of people whose income is less than one dollar a day.

Target 1c: halve, between 1990 and 2015, the proportion of people who suffer from hunger (% of underweight children in the under-five age group).

MDG 2: Achieve Universal Primary Education

Target 2a: ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling (net enrolment ratio).

MDG 3: Promote Gender Equality and Empower Women

Target 3a: eliminate gender disparity in primary and secondary education, preferably by 2005, and in all levels of education no later than 2015 (ratio of girls to boys in primary education).

MDG 4: Reduce Child Mortality

Target 4a: reduce by two-thirds, between 1990 and 2015, the under-five mortality rate.

Child Mortality: *refers to the death of infants and children under the age of five.*

MDG 5: Reduce Maternal Mortality

Target 5a: reduce by three-quarters between 1990 and 2015, the maternal mortality rate.

Maternal Mortality: *refers to the death of a woman during, or shortly after pregnancy (generally within 42 days of the end of a pregnancy).*

MDG 6: Combat HIV/AIDS and Other Diseases

Target 6b: achieve, by 2010, universal treatment of HIV/AIDS for all those who need it.

MDG 7: Ensure Environmental Stability

Target 7c: halve by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation.

Safe drinking water: *refers to use of an improved drinking-water source - one that by the nature of its construction adequately protects the source from outside contamination, in particular with faecal matter. For example piped water, public tap or standpipe, tubewell or borehole, protected dug well or spring, rainwater collection.*

Basic sanitation: *refers to an improved sanitation facility - one that hygienically separates human excreta from human contact. For example flush or pour-flush to piped sewer system, septic tank or pit latrine, ventilated improved pit (VIP) latrine, pit latrine with slab, composting toilet.*

Hygiene promotion, while not formally included in the MDGs, is often considered a component of sanitation. In this report it refers to behaviours/measures, including but not limited to, the management of human faeces, which are used to break the chain of infection transmission in the home and community.

For the purposes of this report, safe drinking WAter, basic Sanitation and Hygiene promotion will be grouped together as WASH.

MDG PROGRESS

Fig 1.1 - Tracking the MDGs

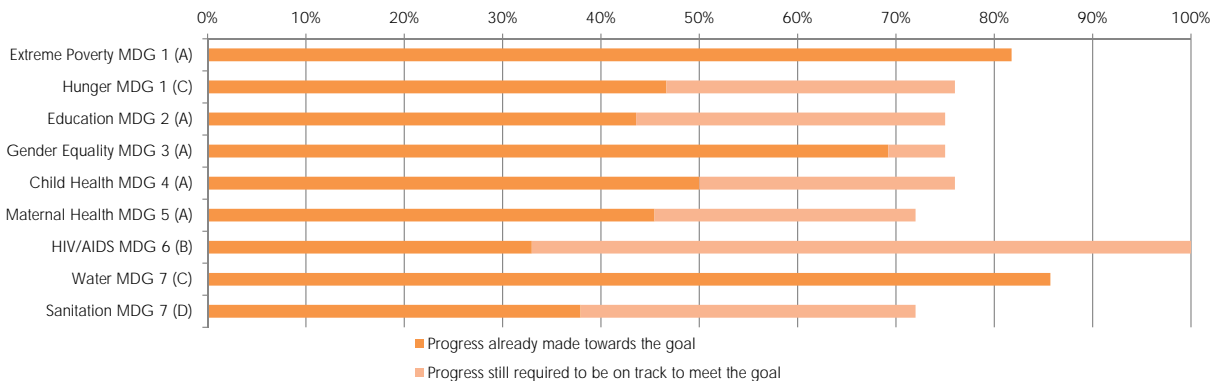
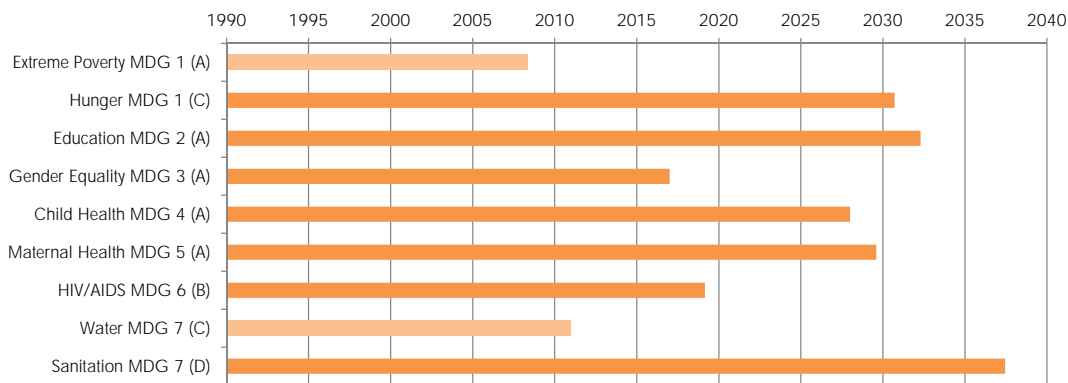


Fig. 1.1 summarises the progress of the MDGs for developing regions to date.⁵ The targets related to sanitation and health remain amongst the furthest off track.

Fig 1.2 - Year MDG will be reached

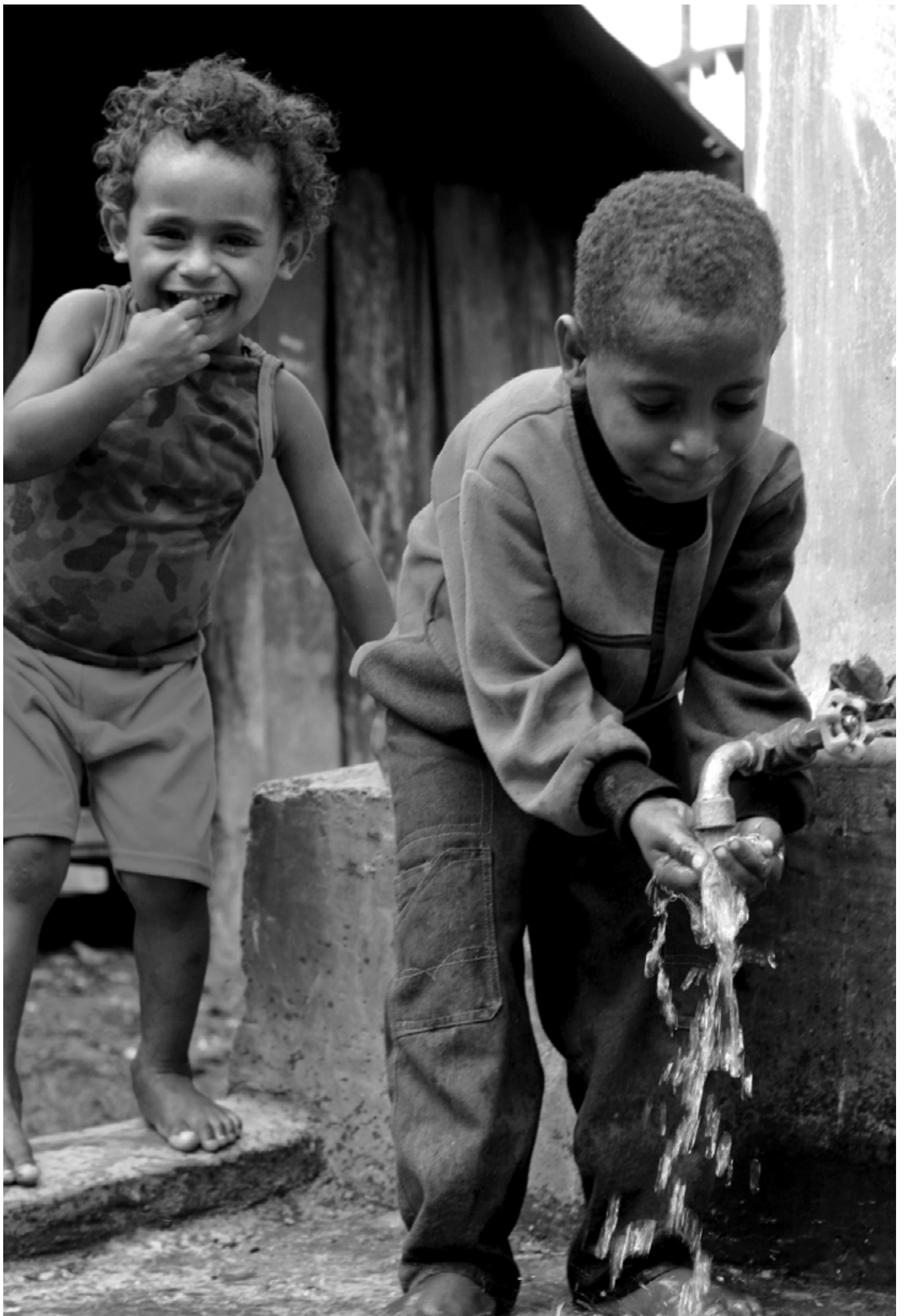


On current rates of progress in developing regions, the target for sanitation will not be achieved until 2037, making it the last MDG target reached. The maternal health goal will not be achieved until 2030 and child health until 2028. This report will demonstrate that the international neglect of sanitation and hygiene is one of the most significant reasons for the sluggish progress of child and maternal health.⁶

WASH OVERVIEW

“Safe and clean drinking water and sanitation is a human right essential to the full enjoyment of life and all other human rights” – United Nations General Assembly.

Having access to hygienic toilets as well as clean and safe water are not luxuries in Australia, they’re realities that we take for granted. It almost seems redundant for the United Nations to cast them as a fundamental human right. But for the families of the two million children that die each year from an inability to turn on a tap or access a hygienic toilet, the recognition that WASH is essential to life is critical. In developing regions 15% of all child deaths are directly attributable to diarrhoea, in Australia the figure is virtually zero.⁷



In rural Cambodia approximately 80% of people do not have access to adequate sanitation, and 60% do not have access to clean water.⁸ Vorn and his wife Roeung are rural farmers in the Cambodian province, Svay Rieng – and for them the lack of clean water and sanitation facilities is a source of ongoing frustration. They are entrusted to look after their grand children, while the children’s parents go to the city, Phnom Penh, for work – a necessity if they are to earn enough to feed their family.

On the farm, dirty water and poor sanitation mean that the children frequently suffer from diarrhoea. Repeated bouts sap them of scarce nutrition, weaken their immune system and prevent them from attending school.⁹ Despite the shadow of ill health that constantly hangs over the family, they mostly manage to eke out an existence and get by.

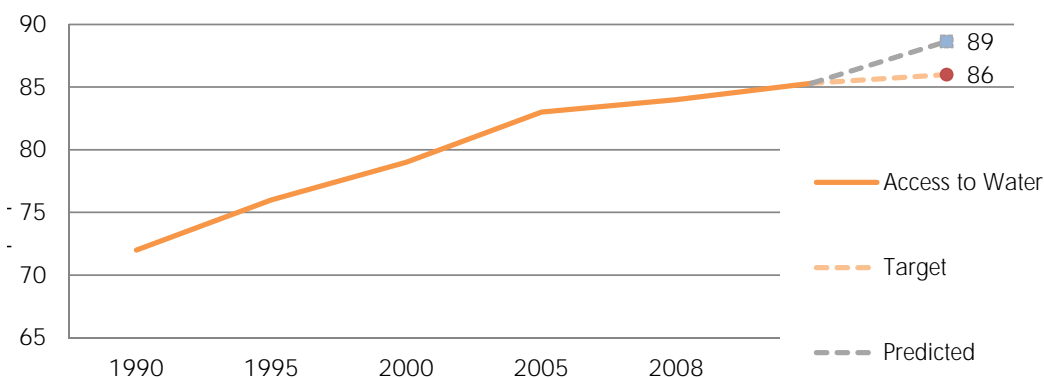
However in 2006, one of the children, five year old Chenda, contracted severe diarrhoea. Suffering from a high fever and being quickly drained of fluids, Vorn and Roeung rushed her to the district hospital. It was not enough, Chenda passed away. There was not even enough time for Chenda’s mother to return to her daughter and say good bye.¹⁰



THE GOOD¹¹

Safe Water

Fig 2.1 - Progress on Increasing Access to Water



- In developing regions, people’s access to safe water has improved from 72% in 1990 to 84% in 2008.
- The number of people without safe water fell by a staggering 27%, from approximately 1,220,000 in 1990 to 884,000 in 2008.
- Between 1990 and 2008 all regions except Oceania increased the proportion of their population with access to safe water, with Eastern Asia having the most impressive increase (68% to 89%).
- Some nations have experienced remarkable rates of progress - Ethiopia more than doubled the proportion of people who have access to safe water (17% to 38%).
- Improving access to safe water is one of two MDGs on track to be achieved before the 2015 deadline.

Sanitation

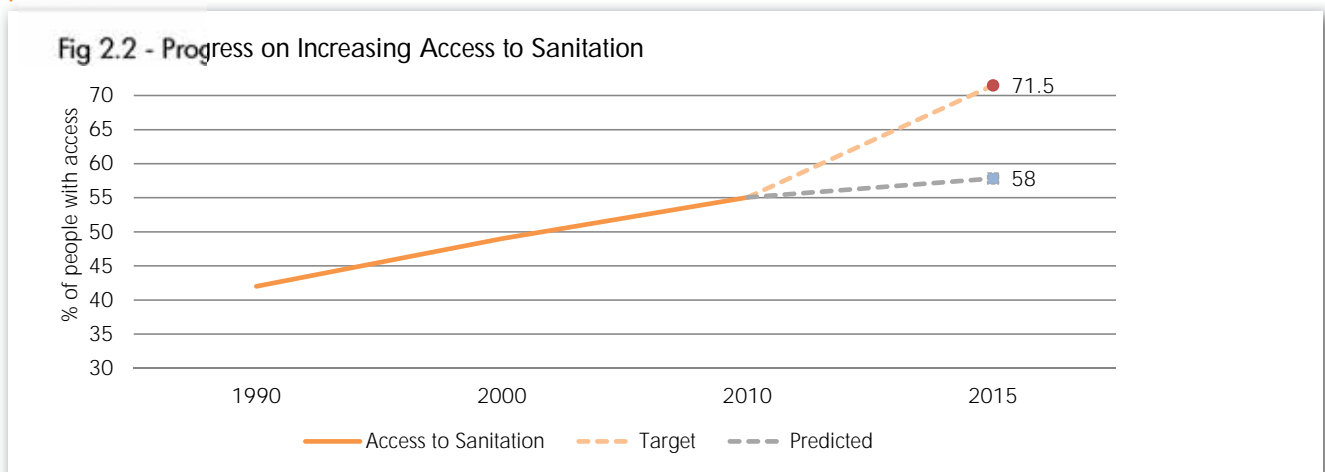
- For sanitation, whilst progress is much slower than for clean water, access has still increased in developing regions from 42% to 53% between 1990 and 2008.
- The number of people without access to sanitation fell from 2.86 billion in 1990 to 2.6 billion in 2008.
- Between 1990 and 2008 all regions except Oceania increased the proportion of their population with access to sanitation, with South-Eastern Asia having the most impressive increase (46% to 69%).

THE BAD

Safe Water

- 884 million people still lack access to safe water.
- Oceania, our backyard, is the most off track on this MDG. Papua New Guinea, for example, made no progress; the proportion of their population with access to safe water fell from 41% to 40% between 1990 and 2008.
- 37% of people without access to safe water live in Sub-Saharan Africa, while less than 0.5% live in developed regions.

Sanitation



- The sanitation target is the most off track (see fig. 1.2 & 2.2). On current trends the target will not be met in:
 - Developing regions until 2037
 - Sub-Saharan Africa until early in the 22nd century
 - Oceania at all
- An astonishing 2.6 billion people lack improved sanitation, 72% of whom live in Asia while less than 1% live in developed countries.
- Amongst our neighbours, Papua New Guinea's performance remains a serious concern, with access to sanitation only falling from 47% of the population with access in 1990 to 45% in 2008.

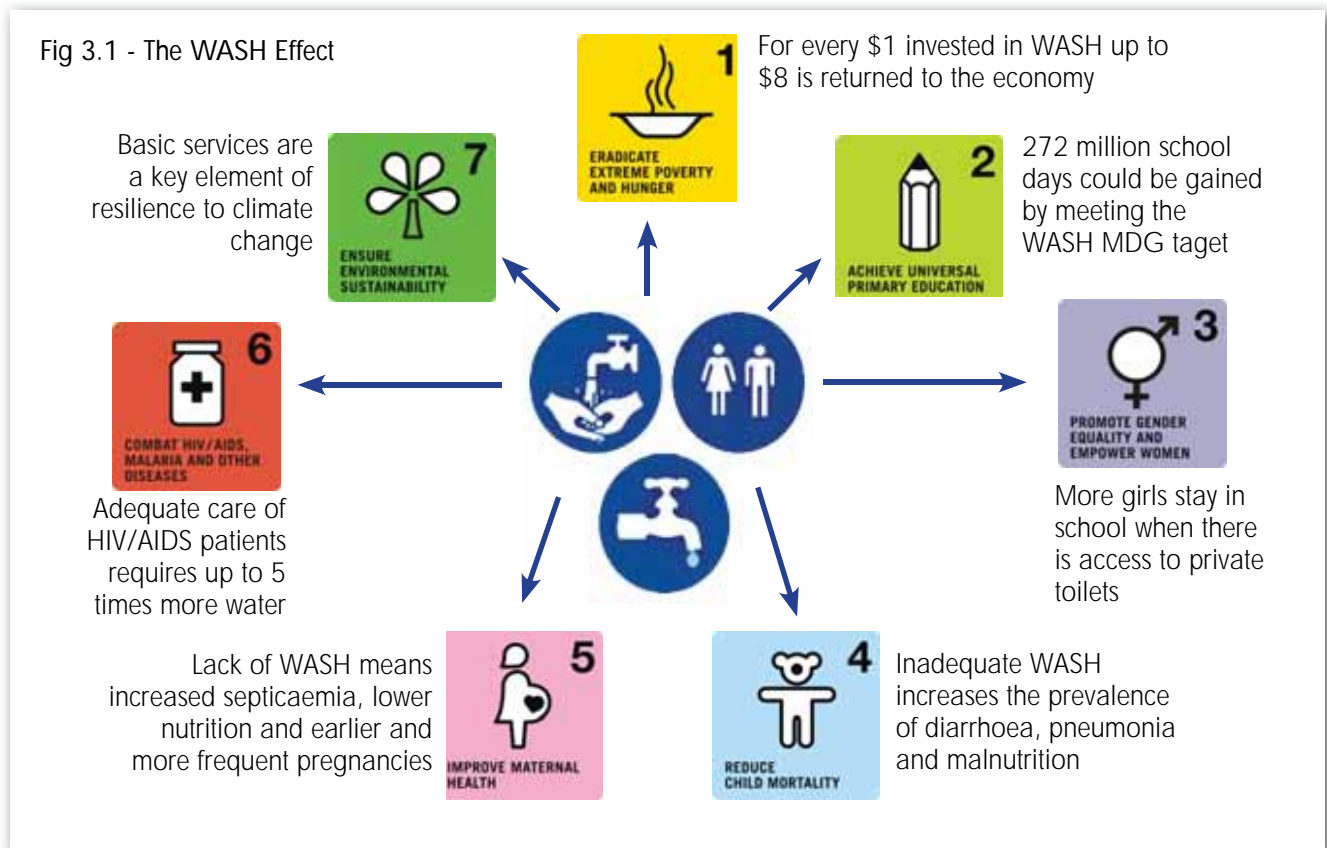
THE UGLY (THE CAUSE OF THE WASH CRISIS)

Chronic neglect and underinvestment work together to perpetuate the WASH crisis, particularly in the area of sanitation. One of the key causes of the crisis is a phenomenon known as 'the poo taboo'. People are happy to talk about many dimensions of development - corruption, infrastructure, education and medicine - but perhaps the one area people are less inclined to discuss is the management of human faecal matter.

As Bob McMullan puts it, there's always a queue of people happy to line up and get their photo taken in front of a well, but that queue disappears very quickly if you replace that well with a toilet. The 'poo taboo' means that there has been an absence of leadership and attention when it comes to sanitation, and correspondingly funding has been neglected. Given the huge mortality burden associated with sanitation, it is an issue that needs to be urgently addressed; in short, this is a taboo that needs to be broken.

the WASH effect

THE CONNECTION BETWEEN ADEQUATE WASH AND THE MDGS



THE LINKS BETWEEN WASH AND HEALTH

Living in an environment which is not contaminated by faeces, where drinking water is not rife with disease and where keeping clean and hygienic is commonplace is essential to staying healthy. That these conditions are not present for many in the developing world is a large contributor to their substantial health and mortality burden. **It is estimated that half of the hospital beds in the developing world are at any one time filled with people suffering from diseases related to inadequate WASH.**¹²

Some of the main WASH related diseases include:¹³

Diarrhoea - Diarrhoea is caused mainly by the ingestion of pathogens, especially in unsafe drinking-water, in contaminated food or from unclean hands. Inadequate sanitation and insufficient hygiene promote the transmission of these pathogens.

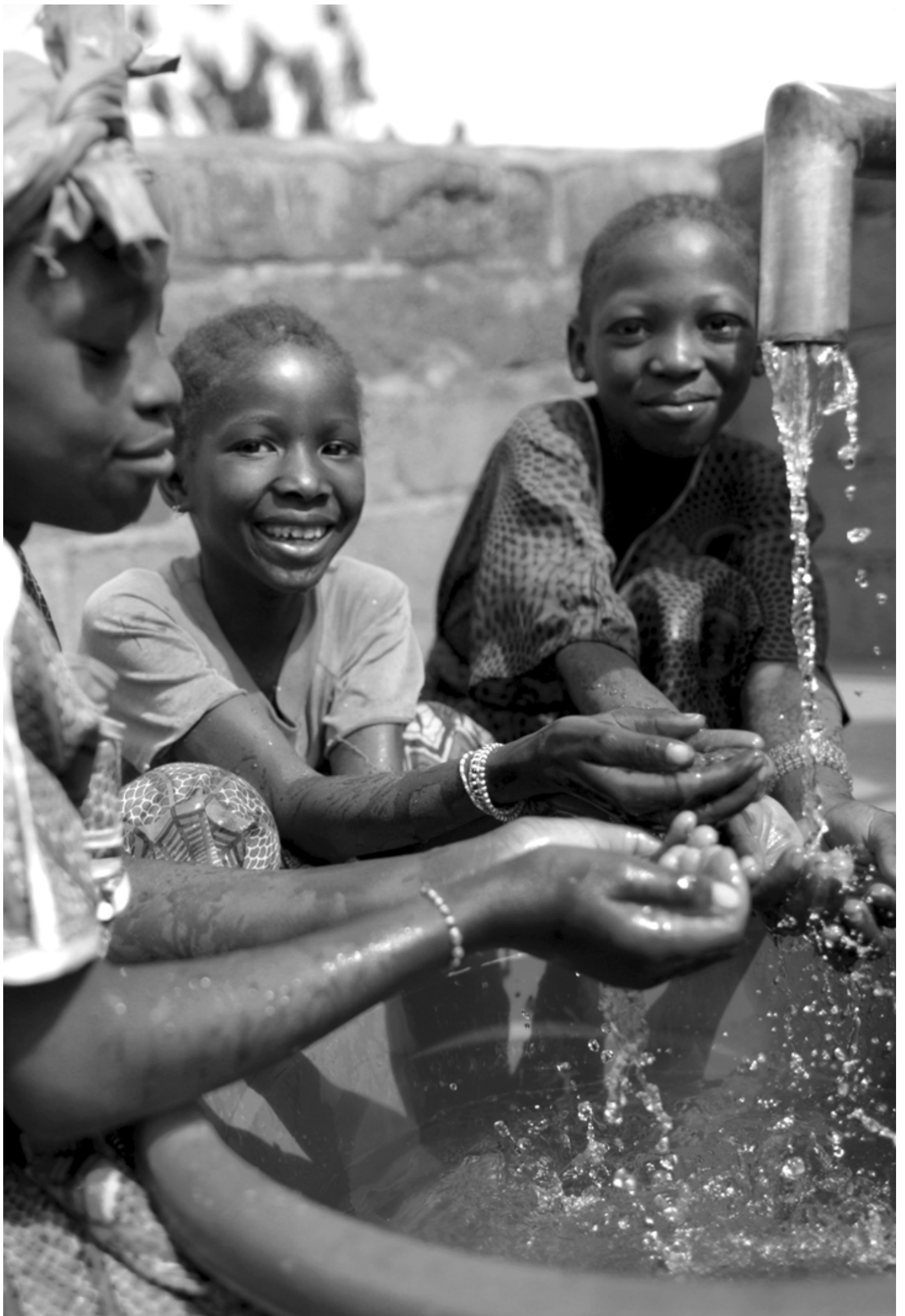
Malnutrition - Childhood underweight causes about 35% of all deaths of children under the age of five years worldwide. An estimated 50% of this underweight or malnutrition is associated with repeated diarrhoea or intestinal nematode infections as a result of unsafe water, inadequate sanitation or insufficient hygiene.

Intestinal nematode infections (or Roundworms) - Transmission of intestinal nematode infections, such as ascariasis, trichuriasis and hookworm, occurs through soil contaminated with faeces. It is entirely preventable by adequate sanitation and intervention outcomes are reinforced by good hygiene.

Trachoma - is a contagious eye disease that can result in blindness. It is transmitted primarily as a result of inadequate hygiene and transmission can be reduced by facial cleanliness, access to safe water, adequate sanitation facilities and fly control. Trachoma is the leading cause of preventable blindness.

Schistosomiasis - is caused by contact with water bodies contaminated with the excreta of infected people and is therefore fully attributable to unsafe water, inadequate sanitation or insufficient hygiene.

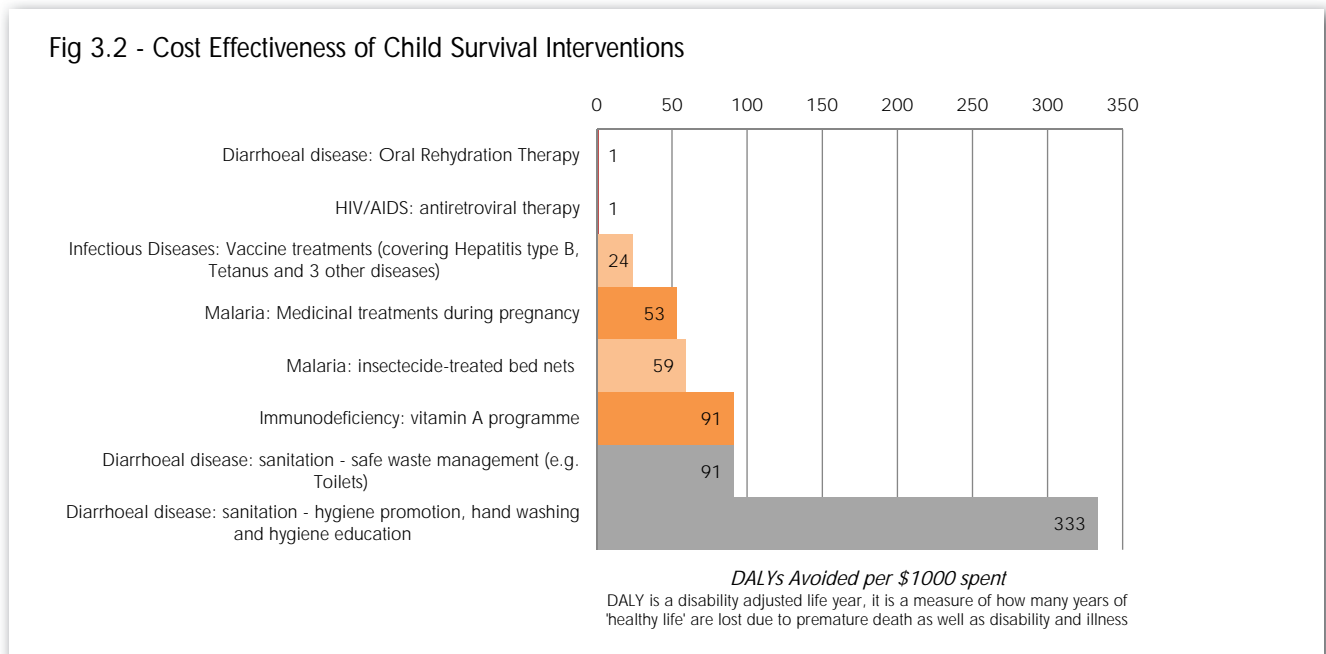
Other WASH related diseases include malaria, Dengue, Japanese Encephalitis & Lymphatic Filariasis (Elephantitis).



THE BENEFITS AND EFFECTIVENESS OF WASH

The effectiveness of WASH investments to improve health, boost productivity and provide substantial economic returns are well established.

- Figure 3.2 summarises the World Bank’s findings on the cost effectiveness of child survival interventions. Sanitation and hygiene promotion are rated as the two most cost effective interventions to improve child health.¹⁴



- The World Health Organisation has estimated that for every \$1 invested in WASH \$8 is paid back into a nation’s economy.¹⁵
- The net benefit of achieving universal access to sanitation and drinking water is estimated at US\$171 billion per year.¹⁶
- These returns are generated from reduced costs to health care, improved productivity due to higher workplace and school attendance, time savings resulting from the reduced need to fetch water, and the fact that people die later and can therefore work longer.
- A British Journal of Medicine poll rated sanitation as the greatest medical advance since 1840 (the year the journal was launched). Sanitation finished ahead of other breakthroughs such as antibiotics, vaccines and anaesthesia.¹⁷
- **If the Australian Government contributed it’s fair share to fix the global WASH crisis, \$500m per year by 2015, it could provide 8.8 million people with access to WASH.**¹⁸

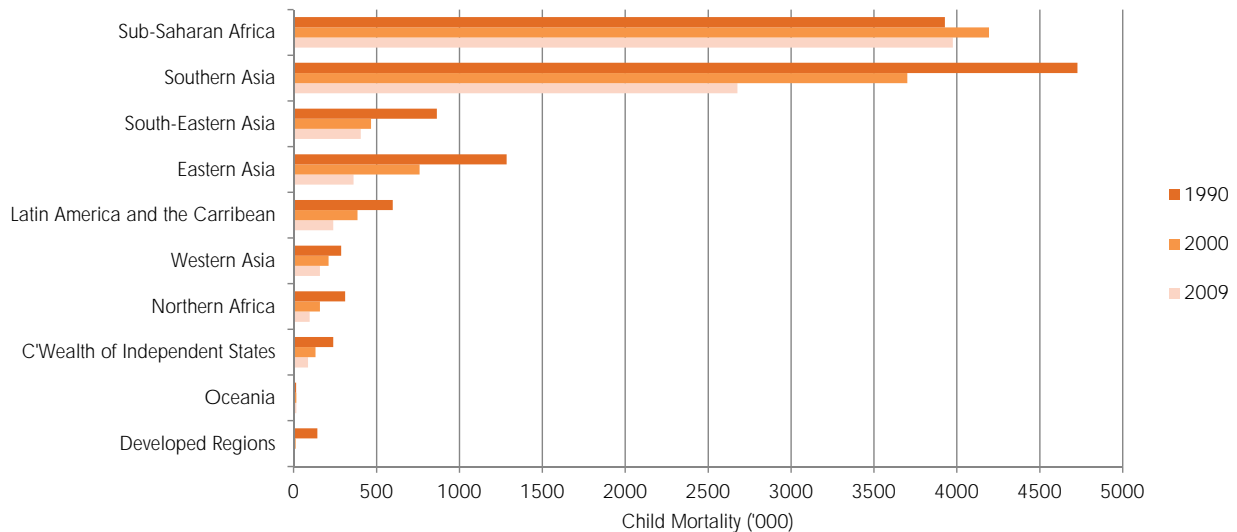
“Clean water and sanitation are vital prerequisites for improved nutrition, reductions in child and maternal mortality and the fight against disease.”

UNICEF Executive Director Anne Veneman¹⁹

CHILD HEALTH²⁰

One of the most horrifying facets of poverty is the number of children that it claims every year. That 8.1 million children die from mostly preventable causes is not a fact that sits easily with most people. The need to save their lives is one of the most powerful reminders of why we need to do all that we can to achieve the MDGs.

Fig 4.1 - Child Deaths by Region



THE GOOD

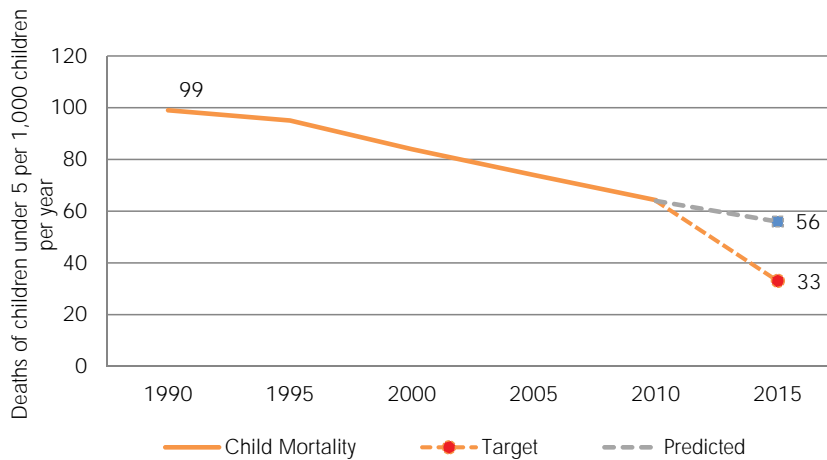
- The number of children that die before their fifth birthday fell from 12.4 million in 1990 to 8.1 million in 2009. The reductions in child mortality have been shared by all regions of the world, with the single exception of Sub-Saharan Africa (see fig 4.1).
- Every region in the world, including Sub-Saharan Africa, has seen reductions in the proportion of children that die, i.e. their child mortality rate (the number of children under the age of five that die per 1,000 live births). This is significant as the MDG target is focused on the rate rather than the absolute number. Northern Africa for example has already achieved MDG 4, six years ahead of target, with the child mortality rate falling from 80 per 1,000 live births in 1990, to 26 per 1,000 live births in 2009, a remarkable fall of 67.5%.
- Globally, by 2009 the number of children dying before their fifth birthday had fallen by about 12,000 children per day on 1990 levels.
- The rate at which child mortality is falling has increased markedly since 1995. In fact, since the Millennium Declaration of 2000 the rate of decline has doubled when compared to the decade before.

These are outcomes worthy of pause and celebration. It demonstrates that the world has everything it needs, the ability, knowledge and resources, to save the lives of the vast majority of children.

*Why is it that one child's death amounts to a tragedy,
but the death of millions is merely a statistic?*²²

THE BAD

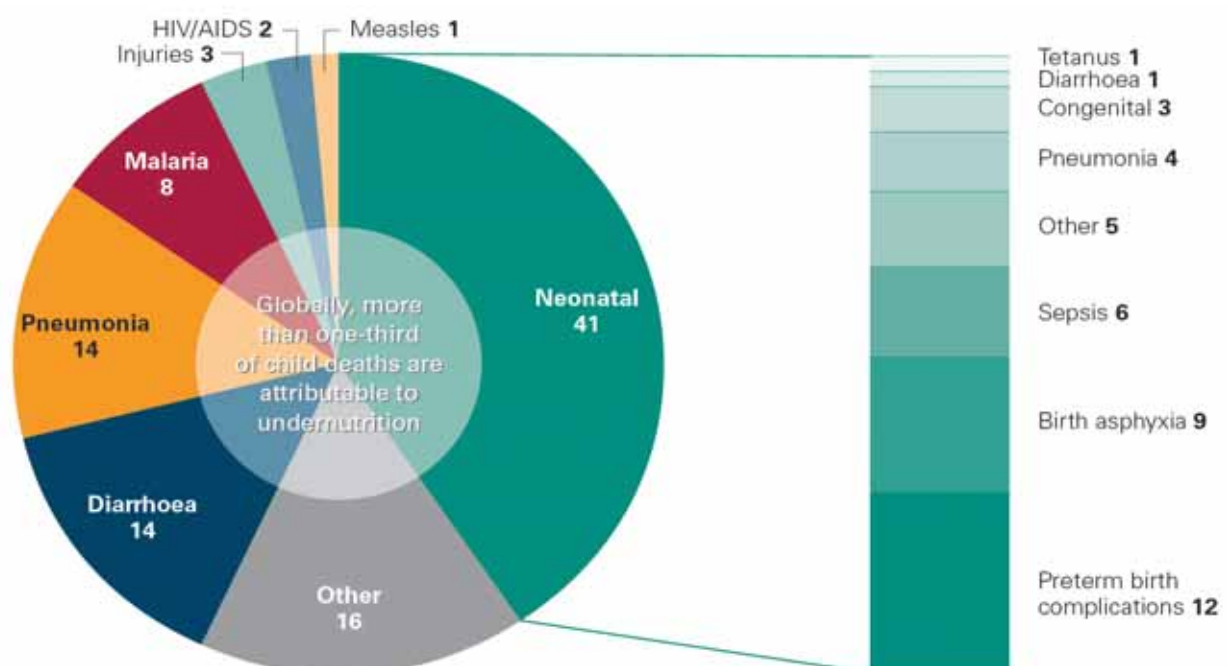
Fig 4.2 - Child Mortality Progress



- **We are still losing too many children, 22,000 per day, 98% of them in developing countries.**
- We are significantly off track to reduce child mortality and achieve MDG 4 (see fig 4.2). On current trends, child mortality rates will fall, but instead of falling by the MDG target of two thirds the fall will be less than half.
- The story for many regions is even worse. Even though pockets of Sub-Saharan Africa, like Eritrea, Madagascar and Liberia are amongst the best performers in reducing child mortality, the region as a whole continues to pace significantly below average.
- Of particular note to Australia is that Oceania is the worst performing region. The Solomon Islands, for example, has shown hardly any progress and Fiji, while seeing substantial change from 1980 to 1990 has not been able to maintain the momentum since.

THE UGLY (HOW WASH LINKS TO CHILD HEALTH)

Fig 4.3 - The Causes of Child Mortality²¹



- WASH directly and substantially reduces the incidence of child death from each of the three major causes, diarrhoea, pneumonia and malnutrition.
- By World Health Organisation (WHO) estimates, more than two million children each year could be saved by access to WASH.

Diarrhoea

Diarrhoea – 88% of which is caused by poor WASH²³ – kills about 1.3 million children under five each year, a death toll greater than that of AIDS, malaria and measles combined. **It is the largest cause of child deaths in Africa and the second largest globally**²⁴. Those children that die from diarrhoea do so by having the hydration and electrolytes they need to survive sapped from their body.

- Improved access to WASH could save the lives of approximately 1.1 million children each year from diarrhoea.²⁵

Pneumonia

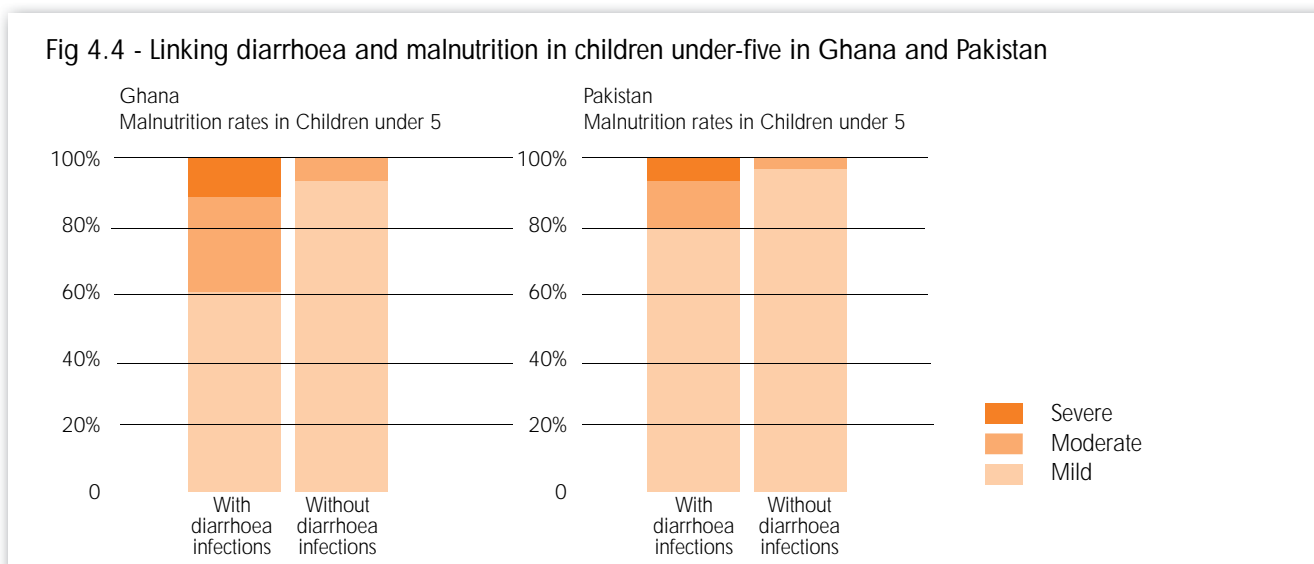
Pneumonia is the second largest killer of children under five. One of the most common ways that infectious diseases like pneumonia are spread is through skin to skin contact. Correspondingly, one of the easiest ways to stop the spread of disease is through the simple act of hand washing. One study found that hand washing with soap reduced the incidence of pneumonia by 50%.²⁶ Hygiene promotion is a simple, cost efficient intervention that could halve the incidence of this disease.

- 729,000 child deaths could be saved by increased access to WASH.²⁷

Malnutrition

Approximately 35% of child deaths are attributable to under-nutrition. More than half of these deaths could be prevented by combating two causes, diarrhoea and roundworm infection. Roundworms are parasites that drain nutrition away from their host while diarrhoea prevents the adequate absorption of the nutrition that does enter the body. Both conditions occur almost exclusively due to inadequate WASH and are thus readily preventable.

In the absence of diarrhoeal infections, the nutritional status of undernourished children quickly improves, with several studies finding virtually no severe malnutrition in children without diarrhoea. Fig 4.4 summarises the results of recent studies focused on Ghana and Pakistan.²⁸



- On these estimates, improved access to WaSH could save the lives of approximately 950,000 children each year from malnutrition.^{29,30}

The message for policy makers is that without increased global determination and recognition of the interconnectedness of WASH to child mortality, our promises to the poor will have little chance of being fulfilled and it is children that will pay the price.

change is possible

LESSONS FROM OUR AUSTRALIAN EXPERIENCE ³¹

The introduction of WASH was central to driving down child mortality in Australian cities in the 19th century. This story demonstrates the profound effect on public health of investing in sanitation. The same political leadership is now needed to tackle the sanitation crisis in developing countries.

Imagine if in towns and cities across Australia, three out of every ten children were dying before their fifth birthday. Now imagine if this was in large part due to these children not having access to something as simple as hygienic toilets and basic hygiene promotion. Not so long ago, this was the reality that many Australians faced.

Consider Melbourne in 1875. With close to half a million people living in the city and no sewerage system, it was a foul environment. A visiting English doctor expressed his disgust: 'I know from experience something of the chronic domestic dirt that prevails among the lower orders in the manufacturing towns of England but nothing that I ever witnessed ... equalled in repulsiveness what I found in Melbourne'. The Yarra River, which flowed through the city, was highly polluted and smelt putrid. This 'fetid festering sewer' carried all manner of waste from noxious trades, rubbish from the city streets, and sewerage. In 1881 the Governor of Victoria, Lord Normanby, complained that he may have to vacate Government House on the banks of the Yarra because of the unbearable stench from the nearby river.

The human impact of this water and sanitation crisis was a child mortality rate similar to those in developing countries today. Records show that in 1875 in Melbourne 367 children out of every 1,000 live births died before their 5th birthday (an amount that dwarfs even modern day Afghanistan's child mortality rate of 200 children out of every 1000 live births).

Diarrhoea was a leading cause of child death and these cartoons from the time illustrate the problems caused by a lack of safe sanitation and the contribution of the city's polluted water supply to this public health crisis.

Australian politicians took action and laid the foundations for improved health by establishing a network of sanitation and water services in our cities and promoting safe hygiene behaviours. In just 30 years, child mortality rates fell by an astounding 250 per thousand live births. In other words, one quarter of all children in Melbourne were saved.

Humankind has the knowledge and capacity to replicate these enormous gains in developing countries across the world, which is why in this report we are calling on the Australian Government to commit the resources to help make it happen.



'Melbourne Drainage, or King Fever and His Victims', Melbourne Punch, 9 June 1864 [reproduced in Suzane Fabian, Mr Punch Down Under, 1982, p. 98]

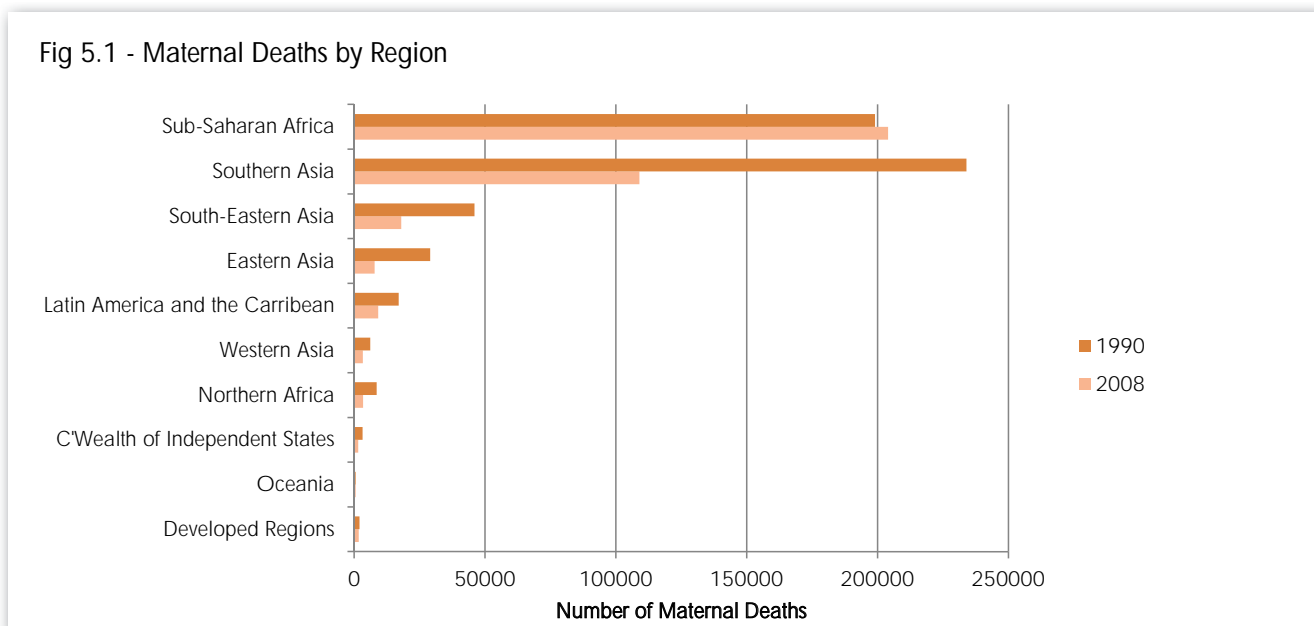


'The Undertaker's Best Friend', Melbourne Punch, 17 March 1881 [reproduced in David Dunstan, Governing the Metropolis, 1984, p. 234]

MATERNAL HEALTH

Mothers bring life, love and comfort. Those who have lost their mothers know this only too well. All of life's challenges are made harder, including that most necessary challenge, living. Children that lose their mothers are more than ten times more likely to die than those that haven't.³² It is hard to overstate the importance of preventing maternal deaths. Women deserve to have children free from the fear it may cost them their lives and children deserve to have their mothers by their side. Yet for a woman in a developing country, falling pregnant remains one of the most dangerous things she can do. Her risk of dying from a pregnancy related cause is 36 times higher than her Australian counterpart. The inequity is stark - 99% of all maternal deaths happen in developing countries.³³

THE GOOD ³⁴

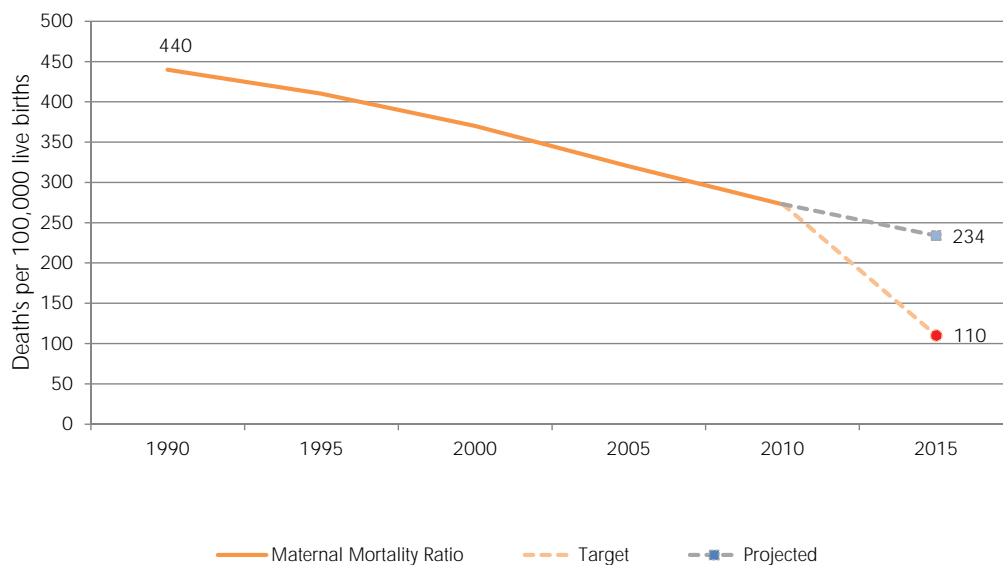


- The number of mothers dying from pregnancy related causes fell from 546,000 in 1990 to 358,000 in 2009. The reductions in maternal mortality have been shared by all regions of the world, with the single exception of Sub-Saharan Africa (see fig 5.1)
- Every region in the world, including Sub-Saharan Africa, has seen a reduction in the proportion of mothers that die, i.e. their maternal mortality rate (the number of mothers that die from pregnancy related causes per 100,000 live births). This is significant as the MDG target is focused on the rate rather than the absolute number. Southern Asia, the region that in 1990 had the greatest number of maternal deaths achieved a massive 53% between 1990 and 2008, falling from 590 to 280. On current trends, Southern Asia will achieve MDG 5 by 2013, two years ahead of schedule.
- The maternal mortality rate is falling and the speed at which it is falling has increased from a 1.7% reduction per year in the decade prior to the Millennium Declaration to a 3.0% reduction per year between 2000-2008.
- For years many believed that maternal mortality rates were an intractable problem that defied all efforts to effect change. The most recent research suggests that the majority (80%)³⁵ of maternal deaths can be prevented and that efforts to date are having a substantial impact.

“... one daughter was born in the dry season, in around January or February. There was a big water crisis in the community. The day I delivered it took three days before I got water to bathe.”
 Maria, Teni Tihan, Ghana. ‘World Walk for Water, Walk for Water toolkit, 2011’

THE BAD

Fig 5.2 - Maternal Mortality Ratio

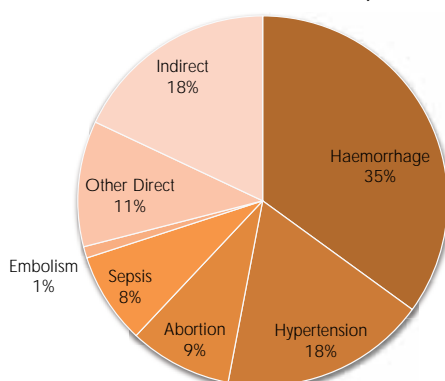


- Almost 1,000 women die each day from a pregnancy related cause. Of these, on average, 570 live in sub-Saharan Africa, 300 in South Asia and only five in high income countries.
- The world is off track to achieve MDG 5 (see fig 5.2). On current trends, maternal mortality rates will fall, but instead of falling by the MDG target of three quarters, the fall will be less than half.
- Australia's backyard, Oceania, is again one of the worst performing regions. Progress in the Solomon Islands has almost completely stagnated since 1995.
- Sub-Saharan Africa is still the region where maternal mortality remains the highest and reductions in the rate of maternal mortality are significantly off track to achieve MDG 5. A few nations like Eritrea and Ethiopia have made remarkable progress in reducing what were (and largely still remain) staggeringly high rates of maternal mortality.

THE UGLY (HOW WASH LINKS TO MATERNAL HEALTH)

The Causes

Fig 5.3 - Causes of Maternal Death (1997-2007) ³⁶



- UNICEF estimates 80% of maternal mortality is preventable. The 'direct' causes of maternal mortality are readily treatable, the scale of the problem is recognised and commitment to its alleviation strong and yet so little progress has been made. Tackling maternal mortality requires not only strengthening healthcare systems, but also addressing the broader determinants of maternal health and mortality such as WASH.
- During pregnancy and childbirth women, and the children they carry, are particularly vulnerable to WASH related diseases.

Infection Control

- 15% of all maternal deaths are caused by infections,³⁷ about half of which could be averted through access to skilled birth attendants that employ hygienic childbirth practices.³⁸
- For example, puerperal sepsis is a form of septicaemia that claims the lives of many mothers in the developing world. The simple act of bathing before delivery reduces the risk of puerperal sepsis by more than 60%. In Australia, good hygiene practice means that this is a condition that mothers rarely, if ever, have to be concerned with.³⁹

Improved Nutrition

- Having adequate nutrition during pregnancy is critical to maintain the health of both mother and child.
- Anaemia, a condition that is often caused by a lack of nutrition, is characterised by weakness and fatigue. The sickness is a significant contributing factor in up to 20% of all maternal deaths. WASH related diseases, such as roundworm infections, play a significant role in increasing the susceptibility to anaemia of many women in developing countries. One study focused on Sub-Saharan Africa, the region with the highest level of maternal deaths, found that between a quarter and a third of women have hookworm infections (a form of roundworm), which doubtlessly contributes to the staggering maternal mortality rates. These infections could be easily prevented through better sanitation management.⁴⁰
- Reduced nutrition from diarrhoea and roundworms often leads to women having stunted growth. This too pushes up rates of maternal mortality as women of short stature experience increased risks of complications during pregnancy, particularly fistulas and prolonged labour.

Education

- In developing countries there is a strong relationship between the age at which girls leave school and the age of first pregnancy as well as the frequency of pregnancies. Fewer choices and opportunities mean that girls often find themselves dealing with unintended pregnancies, risking unsafe abortions or becoming married at a very young age. Education therefore acts as one of the most effective protections against the risk of maternal mortality. While this is relatively well understood, the strong link between education and WASH is often overlooked.
- Having hygienic, private and readily available sanitation services at schools is critical for keeping girls in school and ensuring they get a complete education. The complications of managing menstrual hygiene without such services sees many girls either drop out or miss many days of schooling each year.
- In addition to this, when water is distant from home, it is often girls who are tasked with the strenuous and time consuming duty of fetching it. In many areas this involves hauling 20kg over many kilometres. Time spent hauling water is time not spent in school.

EVERY SCHOOLGIRL'S DREAM: A TOILET

Improving education has become a priority for the Zambian Government but without a similar focus on school sanitation, every month teenage girls risk missing several days of class or, worse, dropping out of school altogether.



Chimunya, aged 17, has just changed schools. Her new school is closer to her home in Nelube, the fees are lower and, crucially, there are clean toilets. "It is better here because if you have a cloth [used to catch the blood during menstruation] and it is dirty you can throw it away and get another one. In the old school I would have to keep them in a plastic bag and throw them away after school. In my old school I did go to school mainly when I had my period, but I would leave early because I was soaked and had to go home and bathe and then wait at home until the period reduced. Now I don't miss school because the toilets here are nice and clean."

WaterAid (2010) 'Ignored: Biggest Child Killer - The World Is Neglecting Sanitation'.
Image: WaterAid

WHAT AUSTRALIA IS DOING

THE GOOD

Aid Quality

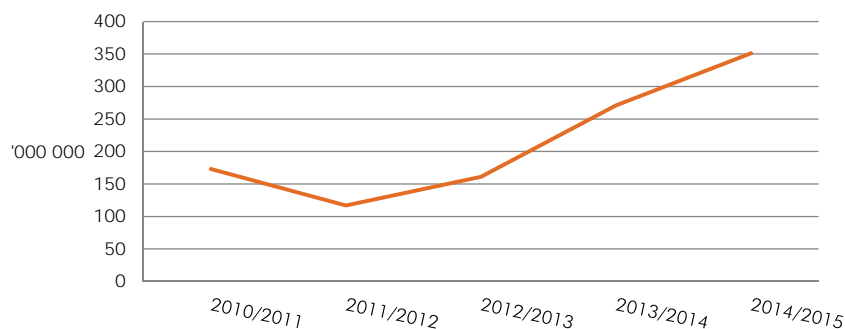
- The 2011 Australian Independent Review of Aid Effectiveness recognised that Australia's aid program is rated amongst the world's best by the OECD. The program has low levels of fraud (around 17c in every thousand dollars) and an effective review, audit and improvement process.
- Australian aid is set to increase from its current position of 0.35% GNI (\$4.8bn) to 0.5% GNI by 2015/16 (around \$8.6bn).
- The Australian Government has acknowledged the importance of WASH to child and maternal health.

'Although water and sanitation has its own MDG targets, reducing diarrhoeal diseases through better access to clean water, sanitation and hygiene will also help achieve the maternal and child health MDG targets. Providing water supply and separate toilets for girls and boys in schools will help improve education attendance rates' AusAID budget papers

WASH

- Since 2009 Australia has provided safe water and sanitation to hundreds of thousands of people around the world, including safe water for 600,000 people and improved sanitation to 400,000 people living in East Timor, Vietnam and the Solomon Islands.⁴¹

Fig 6.1 - Projected WASH Spending (\$900m over 4 years)



- The Australian Government is planning to spend up to \$900 million over four years from 2011/12 to 2014/15 to improve access to safe water and basic sanitation as well as improve hygiene practices across the Asia Pacific region and Africa (see fig 6.1).⁴² This will include funds to build toilets in schools, connect households to piped water, undertake hygiene education programs, upgrade health clinics, build latrines, construct sanitation infrastructure and develop foreign government capacity to better address WASH related issues. Notably, 1.2 million of the beneficiaries of this program will be in Africa, where the WASH crisis remains at its worst.⁴³

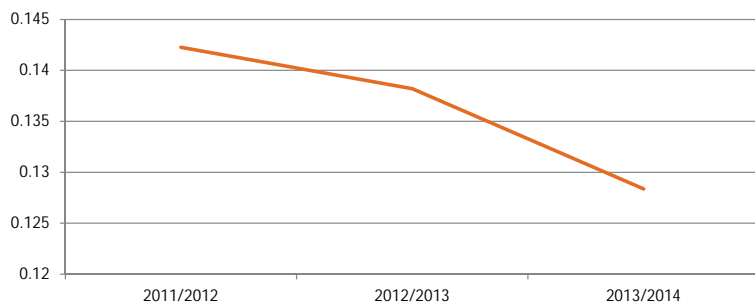
THE BAD

Aid Quantity

- Australia is yet to make a timetabled commitment to increase aid to the internationally agreed aid target of 0.7% GNI. Given the effectiveness of our aid program, we are well placed to deliver additional funds effectively, in order to transform the lives of the poor.
- It has been estimated that from 2005 to the MDG target date of 2015, \$70bn per year is needed to meet the MDG targets for WASH. Australia's fair share of this amount is \$500m. We are currently only giving \$117m, and though we have plans to scale this up to over \$300m this is still far short of our fair share.

Health Spending

Fig 6.2 - Projected Health Spending as a Proportion of the Aid Budget



- Spending on health is falling as a percentage of our aid program despite the fact that the health MDGs are among the furthest of track and most in need of attention (see fig 6.2).⁴⁴

Sanitation

- Despite evidence suggesting that sanitation spending is one of the most cost effective interventions to improve health outcomes, sanitation has been chronically neglected by most governments and donors⁴⁵ including Australia.

Fig 6.3 - The relative neglect of sanitation in global health financing

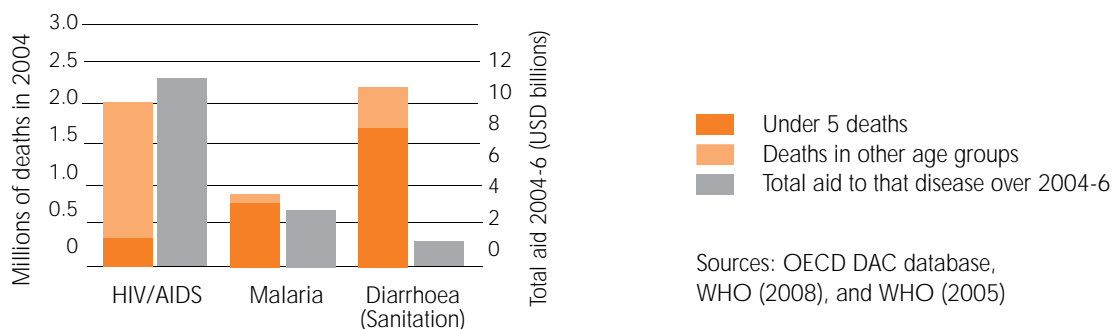


Fig 6.3 shows the relative mortality burden caused by HIV/AIDS, malaria and diarrhoea (in red for children and gray for adults). Next to this, in yellow, is the amount of donor funds spent to address this issue. Diarrhoea which claims by far the greatest proportion of child lives, receives only a fraction of the funding that is needed to adequately address the problem.

- Currently the Australian Government does not distinguish between spending on water and sanitation interventions. This is problematic as most donor governments tend to focus the majority of their energies on water, despite the fact that sanitation is the area of most need.

Integration

- Greater impact and efficiency in the aid program could be achieved by effectively integrating WASH with other areas of the aid program, especially into health and education programs. For example all schools supported by Australia should have a supply of safe drinking water and separate toilets for boys and girls, with access for people with disabilities and facilities for menstrual hygiene management.

THE SOLUTIONS

POLICY PROPOSALS TO END THE WASH CRISIS AND HELP SAVE MORE THAN TWO MILLION CHILDREN AND THOUSANDS OF MOTHERS

1. Make a timetabled commitment for the aid budget to reach 0.7% GNI.
2. Increase health spending to approximately 20% of the aid budget (not including WASH).
3. Provide WASH access for 8.8 million people each year by increasing aid to water and sanitation from \$117m to \$500m per annum by 2015.
4. AusAID to report separately on allocations made to sanitation and water and ensure that at least half of the WASH budget is spent on sanitation where attention is most needed.
5. Ensure that WASH is appropriately integrated into aid programs for health and education.



ENDNOTES

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3. UN Inter-agency Group for Child Mortality Estimation (2010) Levels and Trends in Child Mortality, World Health Organisation (2008) Trends in maternal mortality: 1990 to 2008. Calculations for lives saved if we were on-track is based on statistics from these reports (expected target rate multiplied by an estimation of live births),
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30. NB: We have estimated here, that the net effect of intervention on these three conditions could alone save 2.75 million children. This number is significantly higher than the WHO estimate of 28% of all child deaths (2.27 million). This discrepancy is largely owing to WHO not including the impacts of hygiene on pneumonia. In this report we have opted to use the more conservative WHO estimate as this number has been widely accepted and peer reviewed,
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