

# Making better choices for maternal, newborn and child health in South Africa: Economic evaluation in action

**Reading time: about 25 minutes**

From the PRICELESS SA series: Priority-setting  
for public health in South Africa

## Acknowledgements

The authors are appreciative of the input provided by PRICELESS SA colleagues: Aviva Tugendhaft, Susan Goldstein, Agnes Erzse and Lumbwe Chola. We would particularly like to thank Dr Chris Desmond for his contribution and guidance on content and Karen Martin for her editorial assistance. We want to acknowledge the support provided by the South African National Department of Health, the National Treasury and the South African Medical Research Council.

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# Foreword

Policymakers and service providers are faced with tough choices. This is always the case: in good times and in difficult times. When we allocate resources to one need, of necessity we must take away resources from another. The pool of resources is always limited.

The Department of Health has engaged with PRICELESS SA over several years, working to understand and improve on the impact of South Africa's maternal, newborn and child health policies and services. This booklet gives a brief history of MNCH policy and practice in South Africa since 1994, and highlights the power of economic evaluation as a methodology for priority-setting.

**Economic evaluation allows us to make smart choices, guiding us to target and resource our interventions to have the greatest impact within the constraints of our circumstances.**

We hope that this short, practical introduction to economic evaluation will spark readers' interest in applying economic evaluation in their own areas of public responsibility.



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*Pretoria, January 2019*

# Introducing PRICELESS SA

PRICELESS SA stands for Priority Cost Effective Lessons for System Strengthening South Africa. We are a research to policy unit based in the School of Public Health at the University of the Witwatersrand in Johannesburg, South Africa. Our aim is to support the development of evidence-based information together with tools and methods for deciding how to use scarce resources to improve health for South Africa.

**PRICELESS SA enables smart decisions about health investments in South Africa.**

Our multidisciplinary team includes health economists, clinicians, and researchers with backgrounds in sociology, anthropology, epidemiology, health services and law. We have a strong academic record, and we engage with policymakers, the public and the media in our endeavour to strengthen insight and expertise for setting priorities for South African health using health economics.

Our first big achievement was the research we did that informed the 2013 regulations on reducing salt in processed foods. PRICELESS brought economic evidence that showed what South Africa could save in healthcare costs if there were less salt in bread. We have also generated significant evidence related to the tax on sugar-sweetened beverages that came into force in 2018. Among our other contributions is evidence used by the Minister of Health to encourage provincial and district departments of health to make a push for Millennium Development Goals 4 and 5. Since 2017, PRICELESS has been focusing on the need for institutional processes for priority-setting. In 2019, we are looking ahead to develop public engagement tools and methods to ensure that social values are incorporated into decisions about priorities.

PRICELESS is advised by a steering committee which is led by the National Department of Health and comprises senior representatives from the National Treasury, the Presidency, the South African Medical Research Council, the MRC Agincourt Research Unit and the Health Systems Trust.

Find out more about us at <http://www.pricelessa.ac.za/Home.aspx>

## Introducing this booklet

In 2019, the PRICELESS series on priority-setting for public health in South Africa includes booklets on:

- economic evaluation as a priority-setting methodology, illustrated in the MNCH arena
- systematic, institutionalised priority-setting
- priority-setting for a viable, sustainable national health insurance.

Each booklet stands on its own. Read together, they provide a set of principles and case studies for making the right choices to increase fairness and effectiveness in our public health system.

*Making better choices for MNCH in South Africa: Economic evaluation in action* outlines some of PRICELESS's work over the years in partnership with the national Department of Health and the National Treasury to evaluate the cost-effectiveness of interventions to reduce maternal and child mortality and to improve this group's health.

**The main aim of this booklet is to show economic evaluation in action as a priority-setting methodology.**

To download any of the PRICELESS booklets on priority-setting for public health in South Africa go to <http://www.pricelessa.ac.za/Publications.aspx>

# Progress and challenges in MNCH in South Africa: 1994 to 2018

**Maternal, neonatal and child health has been a high priority for the South African government for more than 20 years.**

In 1994, pregnant women, and children under the age of 6 years, gained fee-free access to public healthcare in South Africa. A range of declarations, plans and commitments, all indicating the importance the government attached to maternal, neonatal and child health (MNCH) followed. The expansion of our immunisation programme began in 1995 with the launch of the Hepatitis B vaccine, followed by the haemophilus influenza type B vaccine in 1999.

**In 2009, South Africa became the first country in Africa to routinely provide pneumococcal and rotavirus vaccines, leading to fewer deaths from pneumonia and diarrhoea.**

Rolling out the prevention of mother-to-child transmission of HIV (PMTCT) began in 2002, with treatment provided to pregnant women with a CD4+ T-cell count below 200 cells/mm<sup>3</sup>. Revised in 2010 and again in 2015, a new policy provides lifelong treatment for *all* HIV-positive pregnant and breastfeeding women.

**The PMTCT programme has led to massive reductions in the transmission of HIV to infants.**

South Africa's MNCH programme continues to evolve. A pivotal moment after 1994 was the introduction of the Choice on Termination of Pregnancy Act. The 1996 legislation allows women to safely terminate unwanted pregnancies in health facilities, and is designed to prevent deaths from illegal and unsafe abortions.



One of the government's commitments was its adoption in 2001 of the UN Millennium Development Goals (MDGs), which included targets on child health and maternal health for the following 15 years.

**Millennium Development Goal 4:**

Reduce, by two thirds, under-5 mortality rate and infant mortality rate, and increase the proportion of 1-year-olds immunised against measles.

**Millennium Development Goal 5:**

Reduce maternal mortality by three quarters, with subsidiary targets for the proportion of births attended by skilled health personnel, the contraceptive prevalence rate, the adolescent birth rate, antenatal care coverage and unmet needs for family planning.

Rallying behind the Millennium Development Goals helped the government focus and plan. Initially, progress was challenging: we saw an increase in the under-5 mortality rate and the maternal mortality ratio, mainly due to a rapid increase in HIV/AIDS. In 2005, both these measures were way above the 1990 MDG baseline levels, and South Africa was one of the few countries that were off course on the MDG agenda.

**Between 2005 and 2015 there was a rapid decline in our child and maternal mortality rates.**

## What drove the striking improvement in mortality rates after 2005?

- Massive investments in responses to HIV/AIDS
- The commitment to the maternal and child health strategic plan
- The expansion of the immunisation programme
- A general increase in financing, good governance and planning in the public health sector.

By 2015, the under-5 mortality rate had declined to 42 deaths per 1,000 live births and the maternal mortality ratio to 138 deaths per 100,000 live births. But we still did not meet MDG 4 or 5.

Ongoing efforts to reduce maternal, newborn and child mortality are now part of South Africa's commitment to the Sustainable Development Goals (SDGs).

### Maternal, newborn and child health targets of Sustainable Development Goal 3:

- 3.1 By 2030, reduce the global maternal mortality ratio to less than 70 per 100,000 live births
- 3.2 By 2030, end preventable deaths of newborns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under-5 mortality to at least as low as 25 per 1,000 live births.
- 3.7 By 2030, ensure universal access to sexual and reproductive healthcare services, including for family planning, information and education, and the integration of reproductive health into national strategies and programmes.

*United Nations (2016), The 2030 Agenda for Sustainable Development*

## How is South Africa performing in meeting the 2030 SDGs for MNCH?

### Progress indicators for SDG 3, South Africa

Goals and indicators	1990	1995	2000	2005	2010	2016	2030 target	Indicator type	Source
Under-5 mortality rate (deaths per 1,000 live births)	60	62	75	75	54		25	SDG	World Development Indicators, 2017
						42			SA Demographic Health Survey, 2016
Infant mortality rate (deaths per 1,000 live births)	47	48	54	52	38		12	SDG	World Development Indicators, 2017
						35			SA Demographic Health Survey, 2016
Proportion of 12-23 months children immunised against measles (%)	79	69	72	84	81	85	100	Domestic	District Health Barometer, 2016
						86			SA Demographic Health Survey, 2016
Immunisation coverage under 1 year of age (%)		66	71	81	81	89	90	Domestic	District Health Barometer, 2016

Progress indicators for SDGs 3/5, South Africa

Goals and indicators	1990	1995	2000	2005	2010	2016	2030 target	Indicator Type	Source
Maternal mortality ratio	108	62	85	112	154	138 (2015)	70	SDG	World Development Indicators, 2017
Proportion of births attended by skilled health personnel		82		91.2 (2003)	94.3 (2008)		100	SDG	World Development Indicators, 2017
						96.7			SA Demographic Health Survey, 2016
Contraceptive prevalence rate (couple year protection rate)		55.1 (1998)		59.8 (2004)		57.9	100	SDG	SA Demographic Health Survey, 2016
Adolescent fertility rate (births per 1,000 women)	92.6	84.7	74.7	63.8	54.2	44.4	Not specified	Domestic	World Development Indicators, 2017
						71			SA Demographic Health Survey, 2016
Antenatal care coverage (at least 1 visit and at least 4 visits)		89	94.2 (1998)	91.9 (2003)	97.1 (2008)		100	Domestic	World Development Indicators, 2017
						93.7			SA Demographic Health Survey, 2016
Unmet need for family planning	15 (1998)		16.5 (1998)	13.8 (2004)	11.1		No target	Domestic	World Development Indicators, 2017
						18.2			SA Demographic Health Survey, 2016

## How does South Africa's performance in MNCH compare to other similar countries?

Social Progress Imperative, a non-governmental organisation best known for its Social Progress Index, measures and compares the capacity of countries to

meet the basic needs of its citizens. In its 2017 index, which includes data from 128 countries on 50 indicators, South Africa performs poorly on the reproductive, maternal, neonatal, child and adolescent health (RMNCAH) indicators, ranking 86 in maternal mortality and 90 in child mortality.

RMNCAH indicators in BRICS countries, 2015

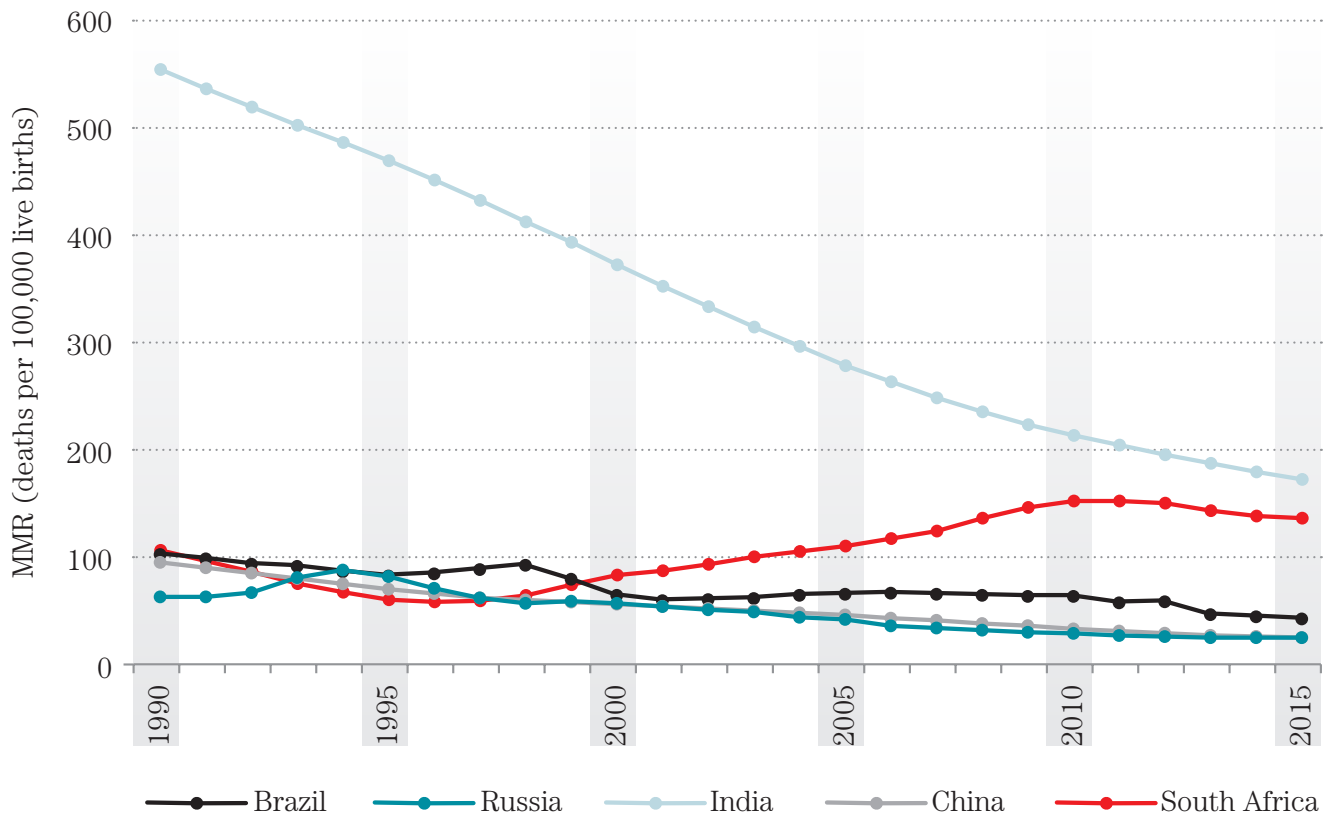
	Brazil	Russia	India	China	South Africa	Source
Under-5 mortality (per 1,000)	16	10	48	11	41	WHO, Levels and Trends in Child Mortality, 2015
Infant mortality (per 1,000)	15	8	38	9	34	
Neonatal mortality (per 1,000)	9	5	28	6	11	
Immunisation coverage (measles containing vaccine)	99	98	87	99	76*	WHO, UNICEF Estimates of National Routine Immunisation Coverage, 2015
MMR (per 100,000 live births)	44	25	174	27	138	WHO, Trends in MMR, 2015
Contraceptive prevalence rate (%)	78.9	69	59.4	83.4	64.5	UN, Model-based Estimates and Projections of Family Planning, 2016
Unmet need for family planning (%)	7.8	10.1	13.3	3.7	18.2	

\* Coverage rate for South Africa differs from the above 89% to allow for cross country comparison in this instance.

Further, if we look at the pace of South Africa's progress, our performance compared to other BRICS countries is shown to be even more limited. Mainly because of HIV/AIDS, our maternal mortality ratio was increasing between

1997 and 2010, then showed a slight decline. But in 2015, it remained higher than the 1990 baseline. In 2015, more mothers per live childbirth were dying than in 1990.

Maternal mortality ratios in BRICS countries, 1990-2015



*World Development Indicators, World Bank 2017*

Compare South Africa and India’s 1990 baselines and note the steady decline in India’s maternal mortality rate: while India’s 2015 rate of maternal mortality is higher than South Africa’s, its pace of progress is better. The other BRICS countries show both better progress and lower mortality rates.

**Progress on the MDGs (and now the SDGs) must be considered in the context of the HIV/AIDS epidemic.**

In 1990 when the HIV/AIDS epidemic appeared, South Africa’s under-5 mortality was already low. So despite considerable mortality reduction in recent years, there has been little real change from the

beginning to the end of the MDGs. The HIV/AIDS epidemic had little impact on mortality rates in 1990. But by the early 2000s, the high prevalence rate and the lack of availability or access to anti-HIV medications significantly increased infant, child and maternal mortality. As PMTCT interventions became available, and adult treatment more accessible and effective, mortality rates have tumbled.

**Data quality needs to be improved, including through further investment in South Africa’s vital registration system.**

Data on childhood diseases and mortality are captured through the Child Healthcare

Problem Identification Programme (<http://www.kznhealth.gov.za/chrp/CHIP.htm>), the vital registration system, the Local Mortality Surveillance System and the Perinatal Problem Identification Programme (<https://www.ppip.co.za/>). Having these multiple data sources has assisted in tracking progress in reducing child mortality.

**South Africa’s spending on health ranks high among emerging economies.**

The consolidated national health budget of R191.6 billion for 2017/18 represented 12% of the total national budget. We spend 8.6% of GDP on health, though with wide differences across our population that depend on where they receive services. Around 50% of the total health budget is spent on 18% of the population in the private sector; the remaining 50% is spent in the public sector.

**In 2015/16, the national Department of Health spent an estimated R15.2 billion on maternal, newborn and**

**child health, and women’s sexual and reproductive health.**

There is no system to track primary healthcare expenditure in South Africa. Estimates are fragmented and inaccurate, and rely on significant assumptions about the data. Maternal, neonatal and child health services are budgeted under District Health Services in provincial Departments of health, and in the national Department of Health under the HIV/AIDS, TB and Maternal and Child Health programme. MNCH is often not a cost category in provincial budgets.

The challenges in measuring South Africa’s spending on maternal and child health makes comparisons with other similar countries difficult. But it is likely that our spending is comparatively high. The lack of granular financial data in general makes it difficult for South Africa to review the impact of our investments in health and make the necessary adjustments.

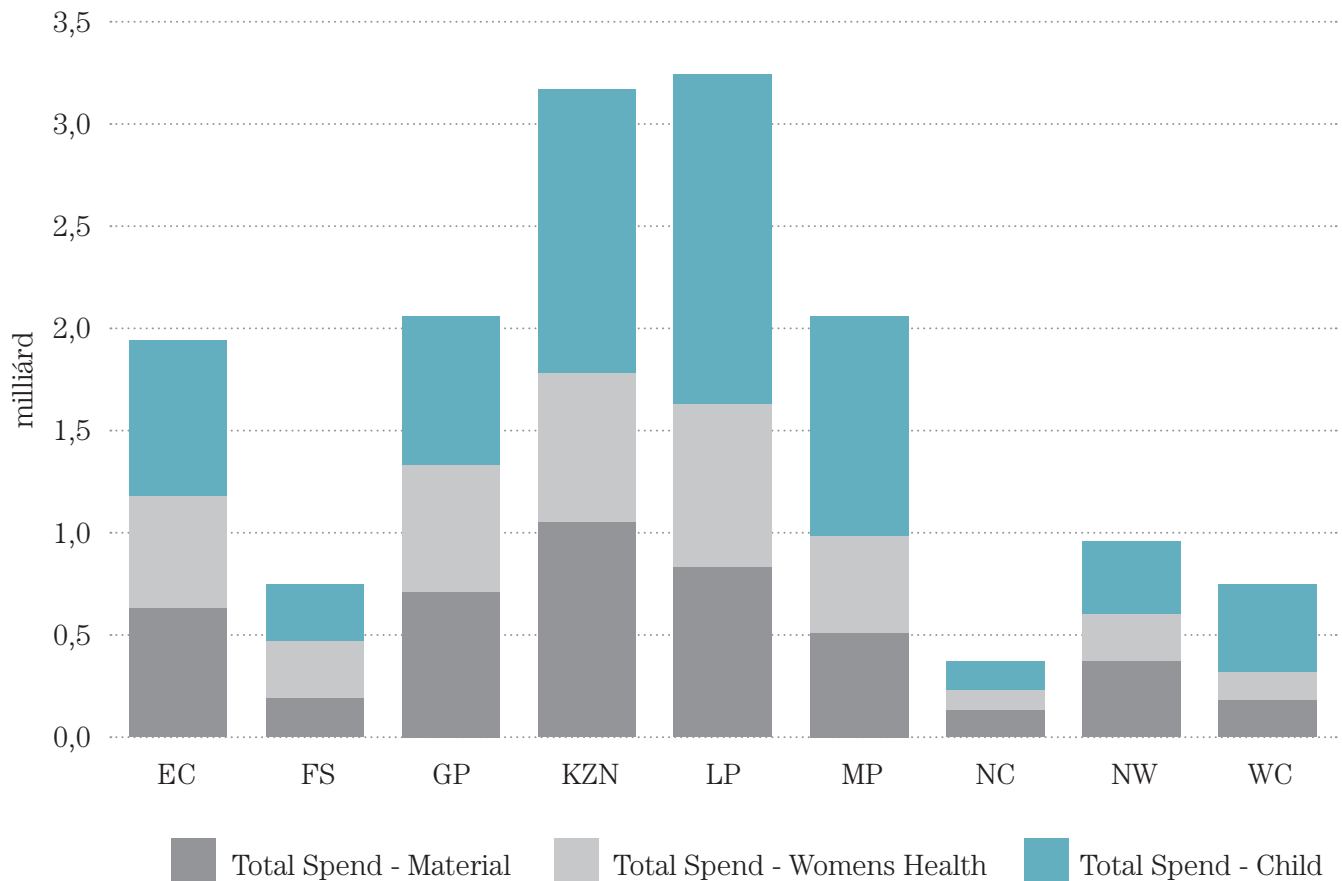
Maternal and child health expenditure trends and estimates, 2012/13 to 2015/16

R million	Audited outcome			Adjusted appropriation 2015/16	Average growth rate (%) 2012/13 - 2015/16
	2012/13	2013/14	2014/15		
Maternal and reproductive health	10.7	14.1	12.4	18.6	20.10%
Child, youth and school health	13.4	16.6	207.4	222.7	155.30%

*Estimates from National Treasury’s Estimates of National Expenditure and an unpublished PRICELESS study commissioned by the national Department of Health*

On average, provinces spent 9.6% of their budgets on maternal health, 5.7% on women’s health and 6.6% on child health. The provinces which spent the most were Limpopo (R3.2 billion) and KwaZulu-Natal (R3.1 billion).

MNCWH spending per province, 2015/16



*Maternal, Newborn, Child and Women’s Health: Health Financing Landscape 2015/16, PRICELESS SA (2017)*

Despite repeated re-commitment at the policy level, huge improvements in the response to HIV/AIDS, and comparatively high levels of government funding for health, South Africa’s progress in maternal, neonatal and child health compared to other similar countries is lagging. Why? The policy is there. The funding is there. Our inability to meet internationally agreed goals and to keep pace with improvements in maternal and child health in similar contexts tells us that we need to prioritise differently at national, provincial and district levels.

# Where are we going wrong?

## Methodological options for prioritising the most impactful options

Resources in any country are always finite, and the public purse needs to be used to maximum effect. This requires making tough choices.

**We cannot do everything we might want to do.**

This challenge applies to all countries, including high-income countries, but it is especially important in settings like ours where resources are more constrained.

Inherent delivery implementation challenges in South Africa's public health system need to be addressed. But what will ultimately decide whether healthcare in South Africa can be changed sustainably for the greatest good will be:

- reorganising the private and public health systems

- making better choices about how to spend public healthcare funds.

There are several interlinked methods for making choices about what is important in healthcare:

- We can rely on what we have done before.
- We can base our choices on the needs of our population.
- We can take into account the economic aspects of providing care and improving quality.

### We can rely on what we have done before

The package of public healthcare offered today is shaped by previous decisions regarding service delivery. Lessons have been learnt and responded to.



**Historical institutional knowledge in our healthcare system is of value and requires our due consideration.**

But allocating healthcare resources to the same activities year after year fails to address many issues, including:

- Were the interventions well chosen in the first place?
- Has the context for implementation changed? If so, how has it changed?
- Are there new interventions that can achieve the desired ends more effectively and efficiently?
- Do past priorities still serve the present and future needs of our society? Have social values changed? If so, how might this influence priority-setting?
- Do we know what the impact is of these interventions?

## **We can base our choices on the needs of our population**

We try to meet the health needs of our population by identifying the diseases that cause the greatest suffering, and we then give priority to healthcare interventions that address these diseases. Allocating healthcare resources according to the burden of disease seems logical. But we need to look deeper.

**If we want to prevent or relieve the greatest suffering, we have to take into account the health service's potential to actually *alleviate* that suffering.**

A disease may lead to high levels of sickness and early death, but if there is little we can do to prevent or treat it perhaps we could relieve more suffering if we prioritise another condition. Another possibility is to focus more on the social determinants that fall under ministries other than health.

While burden of disease analysis can identify the healthcare areas that need the intervention of the healthcare system, it cannot identify:

- which of the areas should be given priority over other areas
- how to intervene effectively and with good quality care
- whether resources will be used efficiently and will alleviate suffering or save lives.

Burden of disease analysis is important, but it is only one component of priority-setting. It is taken into account for evaluating return on investment.

## **We can take into account the economic aspects of providing care and improving quality**

Priority-setting methodologies without an economic component do not tackle return on investment, nor do they show potential cost savings by adding a prevention policy compared to treating individuals who are already sick. There are many other examples of why including an economic approach is likely to be beneficial.

**Economic evaluation can show us how to get the most bang for our buck.**

The tasks in an economic evaluation include identifying, measuring, valuing and *comparing* the costs and consequences of alternative interventions.

**Economic evaluation allows us to describe and compare our options.**

We can answer the questions: Is an identified health intervention worth doing compared with other things we could do with the same resources? Are we satisfied that our healthcare resources should be spent in this particular way rather than in any other way? What are the trade-offs?

Economic evaluations consider:

- the level of need (like a burden of disease analysis)
- the possibility of *effective* intervention
- return on investment (in terms of lives saved)
- the limits posed by the scarcity of resources (affordability)
- cost-effectiveness (to a certain extent)

Incorporating these types of concerns is what makes economic evaluation so powerful. Disregarding any one of them creates a high risk that we will be wasting resources, that inefficiency will creep in, and that critical interventions may be left under-resourced.

**Under-informed choices can result in ineffective interventions and a waste of our efforts and funds.**

## Economic evaluation in action: 5 case studies in priority-setting for MNCH in South Africa

The ongoing engagement between PRICELESS and the national Department of Health to inform priority-setting for maternal, newborn and child health demonstrates the role that economic evaluation can play in delivering the best health outcomes given the tensions between South Africa's constrained resources and our values-driven policies.

The five projects we present here show how economic evaluation can consider a wide range of factors in the process of deciding what will give effect to policy in the most impactful and resource-efficient way:

- Making choices under time pressure at national level
- Making choices to fit local contexts
- Choices that include a broad perspective and health determinants

from other sectors

- Making choices within a narrowly-defined area
- Longer evaluation timeframes for better informed choices.

### Case study 1:

#### Making choices under time pressure at national level

In 2013, PRICELESS conducted an economic evaluation in collaboration with the national Department of Health to identify interventions that could be scaled up to save more lives of mothers, newborns and children in the 500 days leading up to the 2015 Millennium Development Goals deadline. Related evaluations looked at the cost and impact of family planning, interventions to prevent or treat diarrhoea, and

interventions to reduce stillbirths. PRICELESS modelled the cost and impact of increasing more than 60 MNCH interventions. We identified 15 key interventions that could save an additional 1,000 mothers and 9,000 newborns and children every year with only a marginal increase in costs. These interventions included labour and delivery management, early HIV treatment in pregnancy, PMTCT and handwashing. The interventions were adopted by the Ministry of Health as priorities.

All the interventions had already been identified in the MNCH strategic plan and were already being implemented at some level as part of integrated packages for MNCH.

## What value did economic evaluation add?

- The evaluation revealed which interventions to prioritise to allow us to reach national and international targets for quality, lifesaving service delivery. To be effective, these priorities require support from policymakers, implementers and public health managers.

**With comprehensive policies in place but sub-standard implementation, the question is not just what needs to be done but how to ensure that it is done well.**

- The evaluation also estimated the associated costs of delivering the 15 key interventions at the scale required to improve the chances of meeting the MDGs: an additional US\$370 million (US\$7 per capita) per year, which could save the lives of 10,000 newborns, children and mothers.

Read more about this evaluation at <http://dx.doi.org/10.3402/gha.v8.27265>

### Case study 2:

## Making choices to fit local contexts

Provincial departments are the implementers of the policies promoted by the national Department of Health. Priorities and their associated health technologies are different across and within our provinces. Economic evaluation accounts for variations in underlying factors such as mortality, age structure, disease prevalence, and resource costs.

### Effective implementation requires adapting interventions to fit local contexts.

In collaboration with the KwaZulu-Natal Department of Health, in 2014 PRICELESS conducted an economic evaluation to identify and cost a set of interventions to save the lives of mothers, newborns and children and prevent stillbirths in the province by 2019. We tested the

impact of scaling up more than 60 MNCH interventions in the province, using province-specific data. Our evaluation found that focusing on a specific, limited set of interventions, such as labour and delivery management and promoting breastfeeding and handwashing, could save 7,043 additional child lives and 297 additional maternal lives, and prevent 2,000 stillbirths over five years. The evaluation provided information to show that an additional US\$91 million over, or US\$1.72 per person, would be required over that time. In addition, the evaluation showed that increasing family planning could contribute to a further reduction of up to 137 maternal and 3,168 child deaths and would decrease costs in other areas of maternal and child care.

Read more about this evaluation at <https://doi.org/10.1186/s12889-015-2661-x>

### Case study 3:

## Choices that include a broad perspective and health determinants from other sectors

**Changes in the way healthcare is delivered – interventions in the health system –require a broad perspective.**

A commonly recommended change to the way healthcare is delivered is to use more community health workers. A 2015 PRICELESS economic evaluation examined the opportunities in this

recommendation. We modelled what would happen if 9 community health worker interventions aimed at children under the age of 5 were scaled up. The interventions included promoting breastfeeding, handwashing with soap, the hygienic disposal of children's stool, and oral rehydration solution. Our economic evaluation showed that at scale the interventions can save 9,000 child lives per year at an estimated cost of US\$169.5 million per year, which translates into US\$3 per child per year.

**Addressing the broader social determinants of health is likely to have an impact on specific health concerns.**

In 2014, PRICELESS did an economic evaluation to identify interventions to reduce child deaths specifically from diarrhoea. We looked beyond healthcare itself to find interventions that could address the social determinants of health. We tested scaling up 13 interventions and we found that more than 5 million cases of diarrhoea could be avoided per year and over 5,000 additional child deaths could be avoided. Among the 13 interventions, the greatest impact could be achieved outside the remit of the health ministry, including interventions for clean water and sanitation. The additional cost of implementing these 13 interventions ranges from US\$9 to US\$18 per person. The evaluation shows that successfully reducing diarrhoeal

deaths goes beyond healthcare-specific interventions.

Read more about this evaluation at <https://doi.org/10.1186/s12889-015-1689-2>

#### Case study 4:

### **Making choices within a narrowly-defined area**

PRICELESS's 2012 evaluation focused on the impact of supplemental immunisation activity (SIA) campaigns. We found that the campaigns disrupt regular healthcare functioning and divert resources from other activities, including from routine child and maternal health services, and may negatively impact health systems during a campaign.

**It can be difficult to argue that something that is already being implemented should be changed or stopped, but a focused evaluation shows the facts.**

We can really see what is going on, come to understand it, and be informed enough to suggest positive changes.

A narrow focus allows us to understand in detail what is going on. But it can also blind us to the broader benefits of what we're investigating. If we only evaluated family planning in terms of reduced fertility, for example, we would be undervaluing its broader impact. PRICELESS has modelled the cost and

impact of increasing the contraceptive prevalence rate (CPR) to reduce maternal and child mortality. Our evaluation found that increasing CPR by 0.68% per year would reduce pregnancies from 1.3 million to 1 million by 2030, and that unintended pregnancies, abortions and births would decrease by approximately 20%. The cost per user of modern contraception is US\$7 per year. The incremental cost per life year gained is US\$40 for children and US\$1,000 for mothers.

Read more about this evaluation at <https://doi.org/10.1371/journal.pone.0130077>

#### Case study 5:

### **Longer evaluation timeframes for better informed choices**

It is not easy to quickly implement recommendations for changes. Reorganising resources takes time and skill.

**Longer timeframes allow for the full benefits of an economic evaluation to support how we set our priorities.**

Working towards 2030 for the Sustainable Development Goals is a tight timeframe given the ambition of the goals, but not too tight for careful analysis, the associated priority-setting, and for implementing recommended changes. PRICELESS's economic evaluations for MNCH are providing national and

provincial analyses that identify high-impact interventions to facilitate the realisation of the SDG 3/5 targets.

### Some benefits of a longer timeframe for economic evaluations

- A greater variety of changes can be considered, including system changes.
- Human resources can be included.
- Improving quality can be factored in, for example by using quality standard guidelines.
- Regional variations in need and capacity can be given more attention.
- The cost-effectiveness of interventions can be examined in more detail.

### Some benefits of more detailed economic evaluations

The initial national analysis PRICELESS did in 2013 focused on identifying the costs and outcomes of packages of interventions in which each intervention is known to be effective and where the entire package is implemented. A more detailed cost-effectiveness analysis could identify which individual interventions – from within a package or beyond it – are most efficient, and hence should take priority. Such an analysis can also examine the sensitivity of interventions to the quality of delivery: some interventions require more precise implementation and multiple steps to succeed, while the outcomes of others are less complicated to deliver and not so sensitive to the quality of delivery.

## Closing message

South Africa needs to improve its ability to keep pace with improvements in maternal, child and neonatal health and to meet internationally agreed targets. To achieve these goals we need to change not only how our services are implemented, but how we choose which services to prioritise.

**Systematically comparing the benefits and disadvantages of several perhaps equally viable options is at the core of the power of an economic evaluation.**

In our sustained, engaged work with the national Department of Health on MNCH, PRICELESS has demonstrated that economic evaluation is a powerful methodology for priority-setting, guiding how we can make the choices that will best serve South Africa's population within the necessary constraints of government policy, global commitments, national values, and financial and other resources. We have also engaged with some of the limits of this particular methodology.

We hope that readers of this booklet will be interested in investigating how economic evaluation can be used for priority-setting in other health sectors, and indeed more broadly to provide smarter and better government services.



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*Johannesburg, March 2019*



## Find out more

### The Lives Saved Tool

Read about LiSt here: <https://www.livessavedtool.org/>

Email: [info@livessavedtool.org](mailto:info@livessavedtool.org)

### General resources on priority-setting

Countdown to 2030: Tracking Progress Towards Universal Coverage for Reproductive, Maternal, Newborn, and Child Health, by Countdown to 2030 Collaboration. Published in *The Lancet*, April 2018. Read online here: [https://doi.org/10.1016/S0140-6736\(18\)30104-1](https://doi.org/10.1016/S0140-6736(18)30104-1)

What's In, What's Out: Designing Benefits for Universal Health Coverage, by A Glassman, U Giedion and PC Smith. Published by Center for Global Development, 2017. Download here: <https://www.cgdev.org/publication/whats-in-whats-out-designing-benefits-universal-health-coverage>

National Health Insurance in South Africa: Relevance of a National Priority-Setting Agency, by KJ Hofman, S McGee, K Chalkidou, S Tantivess and AJ Culyer. Published in the *South African Medical Journal*, September 2015. Read online here: <http://www.samj.org.za/index.php/samj/article/view/9965>

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