

# THE ECONOMIC BENEFITS OF INVESTING IN WOMEN'S AND CHILDREN'S HEALTH

KNOWLEDGE SUMMARY: WOMEN'S & CHILDREN'S HEALTH



**G**ood health of women and children has a universally acknowledged intrinsic value and is a basic human right. Healthy women and children also contribute to economic growth. For every dollar spent on key interventions for reproductive, maternal, newborn and child health, about US\$ 20 in benefits could be generated. GDP per capita is increasing by 1.0% per year in People's Republic of China (PRC) and 0.7% per year in India as a result of the effect of lower fertility on age structures. The economic case should inform priorities and resource allocation decisions in women's and children's health, alongside arguments based on human rights and the intrinsic value of good health.

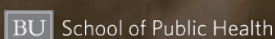
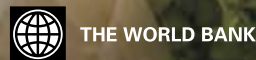


Photo: WHO /Olivier Asselin

## The challenge

Good health for women and children is **intrinsicly desirable** because it leads to longer, more fulfilled lives. It is also a basic human right. Women, adolescent girls and children are **entitled** to the health care they need for good reproductive, maternal, newborn and child health (RMNCH). There are affordable and effective interventions to reduce the burden of mortality, morbidity and disability. Investing in these interventions also reduces inequities in health services access and financing.

There are also clear economic benefits. Healthy children enjoy better cognitive development, achieve more at school and become healthy, productive adults. Healthy women are more able to work – and so to earn, invest and save more. This document summarizes key evidence on the economic returns of investing in essential RMNCH interventions,<sup>1</sup> which can be used to shape policy on prioritization and resource allocation.

It also describes initiatives and studies aimed at broadening the evidence-base and refining methods and analytical tools.

Existing resources for health could be **used more efficiently**.<sup>2</sup> Better value for money will accrue from strategic, aligned and targeted prioritization and resource allocation, based on evidence and linked to system-wide improvements. However, **more funding** is also needed to increase access to quality RMNCH interventions. Ministries of health need to understand the economic case for investing in RMNCH, and should use it to influence financial decision-makers such as ministries of finance and parliamentary budget committees. It can also complement arguments for resources based on the intrinsic value of health, human rights and the burden of disease. Bilateral and multilateral donor agencies increasingly request economic evidence as a basis for development assistance.

## What do we know?

The **World Development Report 1993 Investing in Health** introduced a new way of measuring health and interventions to improve health by examining the links between health outcomes, policy and economic development.<sup>3</sup> In 2001, the **Commission on Macroeconomics and Health** showed that higher income is associated with better health (“wealthier is healthier”), but also showed a link from improved health and nutrition to economic growth (“healthier is wealthier”), for example that a 10% increase in life expectancy is associated with economic growth increases of 0.3-0.4% per year.<sup>4</sup>

### From improved health to economic growth

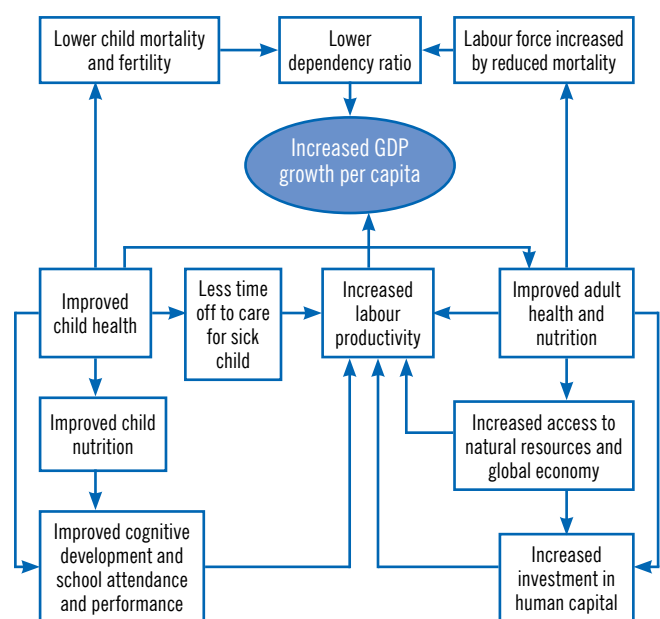
The key pathways from improved health to economic growth are (Figure 1):

- **educational attainment** – from improved cognitive development and learning, increased school attendance and performance;
- **productivity** – fewer work days lost to illness, increased output when at work;
- **savings and investment** – as health-care costs are reduced, households tend to invest more; as people live longer, they have more incentive to save for education and retirement;
- **the labour force** – lower mortality and subsequent lower fertility increases the size of the labour force and decreases the dependency ratio.

Addressing the human resource gap can both strengthen health systems and create jobs. More jobs and economic activity increase state **tax revenues**. Social returns include community cohesion and **social stability**, which undoubtedly stimulates economic growth.

**Figure 1**

### How improved health influences economic growth



Source: Adapted from World Health Report 1999<sup>5</sup>

**Box I – Examples of studies addressing methodological challenges in the measurement of the relationship between health and economic growth**

| Institution         | Summary of approach/method   | Strengths   | Limitations   |
|---------------------|--|---|---|
| Boston University   | <ul style="list-style-type: none"> <li>Excel model to estimate relationship between RMNCH mortality and disability and lost productivity and income</li> <li>Estimates the percentage of each condition that could be managed at three levels of the health system, and cost per life saved and disability averted</li> <li>Calculates benefit-cost ratio</li> </ul>   | <ul style="list-style-type: none"> <li>Considers impact of disability as well as mortality</li> <li>Estimates returns on investment at different levels of the health system</li> <li>Uses widely available data from Countdown to 2015 database</li> <li>Can be run for any country. Users can input own data and run the model</li> </ul> | <ul style="list-style-type: none"> <li>Based on existing data, which are sometimes regional, not country-specific</li> <li>Estimates of disability based on mortality data require further confirmation due to limited literature in this area</li> </ul> |
| Lund University     | <ul style="list-style-type: none"> <li>Study of link between RMNCH outcomes and economic growth using aggregate panel data for 170 countries (1990-2010)</li> <li>Econometric methods used to identify the direction of the link between RMNCH and GDP, and estimate effect of a drop in mortality on GDP per capita</li> </ul>  | <ul style="list-style-type: none"> <li>Considers the two-way relationship between health and GDP</li> <li>Uses different health outcomes and analyses 170 countries over 20 years</li> </ul>  | <ul style="list-style-type: none"> <li>Restricted data availability limited inclusion of other growth- or health-related factors in the econometric analysis</li> </ul>   |
| Victoria University | <ul style="list-style-type: none"> <li>The OneHealth Tool<sup>30</sup> was used to estimate the cost and health impact of scaling up RMNCH interventions in six Asian countries</li> <li>Economic returns on investment were then estimated, particularly for labour force participation and productivity</li> <li>A cost-benefit and rate of return framework was used to compare costs and benefits</li> </ul> | <ul style="list-style-type: none"> <li>Comprehensive modelling approach, enabling costs, health impacts and economic benefits to be compared</li> </ul>   | <ul style="list-style-type: none"> <li>Many benefits arise from morbidity avoided rather than lives saved. The knowledge base about morbidities is limited, so some key assumptions are uncertain</li> </ul>  |

**Returns on investment in key RMNCH interventions**

*Population and labour force*

An estimated **30-50% of East Asia’s dramatic economic growth in 1965-1990 can be attributed to reduced child mortality and subsequent lower fertility rates** that created a baby-boom cohort and decreased the dependency ratio.<sup>6</sup> This “demographic dividend” boosted economic growth.<sup>7</sup> This effect is particularly important for women, as reduced fertility increases their participation in the workforce GDP per capita is increasing by 1.0% per year in People’s Republic of China (PRC) and 0.7% per year in India as a result of the effect of lower fertility on age structures.<sup>8</sup>

*Child health and nutrition*

This has a significant impact throughout the life course.<sup>9</sup> Each centimetre gain in height due to **improved childhood nutrition** in Ghana and Brazil has been **correlated with a wage increase of 8-10%** in adulthood.<sup>10</sup> A nutritional intervention in Guatemala in the crucial first two years of life led to a 46% increase in adult wages.<sup>11</sup> In Honduras and Bangladesh, lost income due to iron deficiency was respectively 2% and 8%; driven largely by the impact on future productivity of children.<sup>12</sup> Studies from Bolivia and India suggest that nutrition interventions may be **particularly important for girls**.<sup>13</sup>

*Reproductive health and family planning*

**A reduction in fertility of one child per woman in Nigeria would lead to a 13% increase in GDP per capita in 20 years, and 25% in 50 years.**<sup>14</sup> An estimated US\$ 1.40 is saved on maternal and newborn health care for every dollar invested in family planning<sup>15</sup> and another US\$ 4 is saved on treating complications of unplanned pregnancies.<sup>16</sup> Family planning is highly cost-effective in reducing preterm births, especially in regions with high rates of adolescent pregnancy.<sup>17</sup>

*Investing in RMNCH – two recent studies*

A study by Victoria University in Melbourne in six Asian countries found significant returns through increased productivity (see Box I): **for every dollar spent on key interventions for RMNCH, about US\$ 20 in benefits could be generated.**<sup>18</sup> Preliminary results of a study by Boston University suggests a benefit cost ratio (BCR) of as much as 23.6 (see Box I).<sup>19</sup> The results of the two studies were robust and consistent across a range of sensitivity analyses undertaken. Both studies found that reducing future morbidity and disability was a key driver of the BCRs.

*The gender dividend*

Gender equality is a key dimension of the impact of women’s health on economic development.<sup>20</sup> It fuels growth by bringing women into the labour force and paves the way to lower

birth and death rates – the demographic dividend. Women tend to spend more on the health, education and welfare of the household, and to save more – hence a “gender dividend”.<sup>21</sup> Early marriage and child-bearing, through the effect on girls’ enrollment in secondary and tertiary school, also have an impact on health and economic development.<sup>22</sup>

## Recent initiatives and studies

### A global investment framework

The independent Expert Review Group has recommended creating a global investment framework for women’s and children’s health.<sup>23</sup> The framework, coordinated by the Partnership for Maternal, Newborn & Child Health (PMNCH), WHO and the University of Washington, will guide investments in a more **strategic, aligned, accountable**

**and targeted** way, building on the African<sup>24</sup> and Asia-Pacific<sup>25</sup> RMNCH investment cases and the HIV investment framework.<sup>26</sup> Analysis will be undertaken in collaboration with the **Lancet Commission on Investing in Health**.<sup>27</sup>

### Strengthening methods and expanding the evidence-base

There are methodological challenges in the analysis of economic returns.<sup>28</sup> Health is often measured differently in different studies; the parameters used in estimating the effects of investments on economic growth (particularly for chronic morbidity and disability) need further validation; and causality can be difficult to assess.<sup>29</sup> More work is needed to broaden the evidence-base and improve methods and underlying assumptions (Box 1).

## Conclusion

**T**he economic case for investing in women’s and children’s health is strong. Work to quantify returns is ongoing, but existing evidence suggests that investment in RMNCH has a potential return of about US\$ 20 for every dollar spent. The economic case

should inform policy and resource allocation decisions, alongside human rights and the intrinsic value of good health. Investing in women’s and children’s health is vital for sustainable economic and social development.

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