

2007

## The Global Context: International Child Health

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### Recommended Citation

**Alperstein, G. (2007). The global context: International child health. In M. Kibel, H. Saloojee & T. Westwood (Eds.), *Child health for all* (p. 6). South Africa: Oxford University Press.**

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**Title:** The Global Context: International Child Health

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## **Introduction**

Approximately 5000 children under 5 years died on 11 September 2001 from diarrhoea, about double the number of persons who were killed when two airplanes crashed into the World Trade Towers in New York. For many years prior to that day, and every day since then, approximately 5000 children under 5 years have died from diarrhoea, by and large preventable by eliminating poverty. In 2003 global expenditure on anti-terrorism measures was quoted to be approximately \$US551 billion. The UN Millennium Project has estimated that to cover basic needs in health, education, water, sanitation, food production, roads and other key areas, and achieve the Millennium Development Goals of the poorest countries would cost \$US160 billion per year. This can be achieved by the wealthy countries of the world donating 0.7 % of their Gross Domestic Product (GDP). Only 5 of the 13 wealthiest OECD countries currently meet that target. The contribution from the USA (which currently contributes 0.15%) would be approximately \$US60 billion – the same as the cost of the Iraq war per year for the first two years, similar to the Bush administration's tax cuts to those earning more than \$US500,000 per annum and approximately what Western Europe spends on alcohol every 6 months.

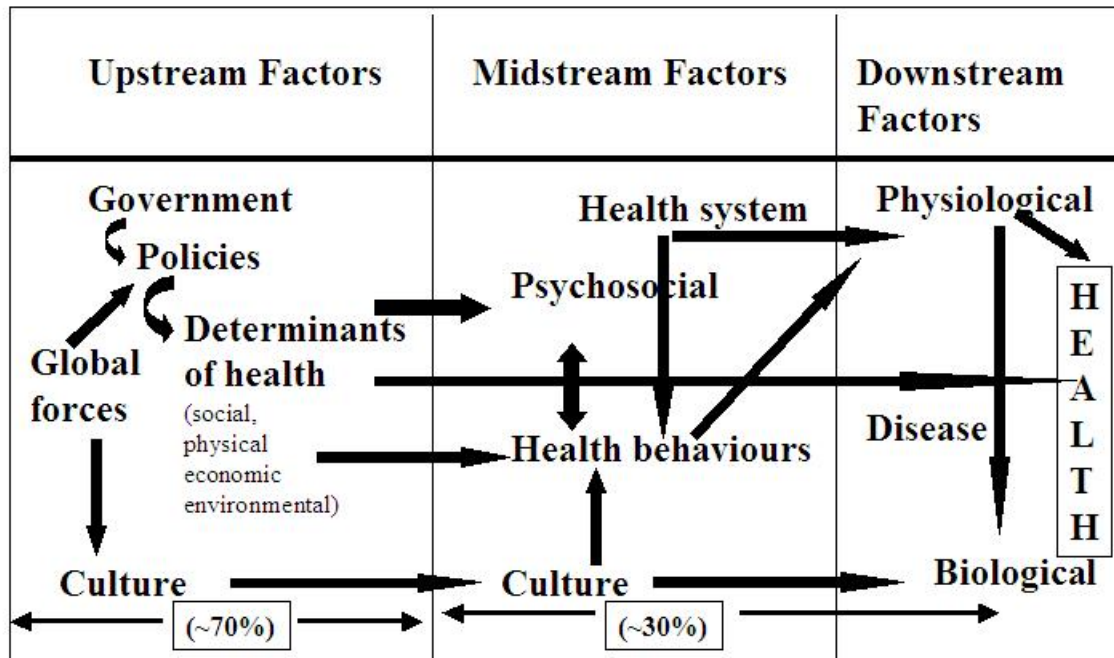
Between 1990 and 2002 child health outcomes, particularly under 5 mortality rates world-wide have been improving except in the Commonwealth of Independent States (former Soviet Republics) and some Sub-Saharan African countries, where under 5 mortality has deteriorated, and rates in Sub-Saharan Africa remain high. However, as overall rates have been falling, inequalities and inequities in child health outcomes within and between nations have been increasing. From 1970-2000 under 5 mortality decreased by 71% in high income countries, but by only 40% in low income countries

The aim of this chapter is to describe broadly the determinants of child health, to question the current approach to improving child health outcomes, particularly in low and middle income countries, and discuss possibilities for improving child health in poor countries and reduce inequalities and inequities, considering strategies at a global, national and local level.

## **Determinants of Health**

There are many models for describing determinants of health. A commonly used model categorises the determinants into upstream, midstream, and downstream determinants (Figure 1).

Figure 1. Determinants of Health



Modification of 'Socioeconomic determinants of health.' Turrell G et al. QU T. April 1999. Commonwealth Dept Health & Aged Care, Canberra

*Reproduced by kind permission of Queensland University of Technology from "Socioeconomic determinants of health: towards a national research agenda"*

There are no good data specifically from low and middle-income countries on the relative contributions of the various determinants on the health of children. However, estimates indicate that upstream determinants account for 60-70% of health outcomes, and mid and downstream account for 30-40%. These estimates would obviously vary from country to country. However, it is clear that the major contributors to health outcomes are determined by the upstream factors. Yet most recommendations, including GOBI, GOBI FFF and IMCI entail predominantly health service strategies. At best, non-health care 'upstream' strategies have included primary and female education. Even the Alma Ata Declaration ended up a focus on primary 'health care' and the upstream determinants mentioned rapidly lost status. Poor countries have been further jeopardised by foreign debt, structural readjustment and globalisation policies that have mostly benefited wealthy countries, with net flows of money from the poor to wealthy countries.

Historically, there are good data demonstrating how death rates from many health problems, particularly infectious diseases such as tuberculosis, measles, pneumonia, scarlet fever, typhoid, polio and many others decreased in Europe and the USA long before the advent of antibiotics, vaccines, primary health care, GOBI FFF or IMCI. The health status of children in Europe and the USA during the latter part of the 19<sup>th</sup> Century

and the beginning of the 20<sup>th</sup> Century was similar to many poor countries today. Improvements in child health has been attributed to better living conditions, better working condition for adults and children, better nutrition, better general health, and public health measures of clean drinking water and sanitation. In the second half of the 20<sup>th</sup> Century increased wealth and educational status have contributed to further improvements, particularly in wealthy countries.

Economic growth of nations has been and still is argued to be a critical contributor to better health status. Although most health indices among children have continued to improve world-wide, economic growth and wealth has now created increasing inequalities in health status between rich and poor. This phenomenon has been termed 'modernity's paradox'. The Fordham Institute in New York has developed an index of social health. The social index comprised child indicators (infant mortality, child abuse and child poverty), teenage indicators (high school drop out rates, youth suicide, teenage drug use), adult indicators (unemployment, average weekly earnings, health insurance coverage) and all ages indicators (homicides, alcohol related deaths, food stamp coverage, access to affordable housing, gap between rich and poor). As GDP per capita increased in the USA between 1970 and 1993, the index of social health decreased. An analysis of Canadian data revealed a similar trend, except for some evidence of better social health during periods of greater welfare investment. What is critical is how the money is spent and distributed.

### **The Way Forward**

The esteemed British epidemiologist, Geoffrey Rose stated "the primary determinants of disease are mainly economic and social, and therefore its remedies must also be economic and social"

Improving child health internationally is a complex challenge. To improve overall child health and reduce inequalities, the issue must be addressed at a global, national and local level. Much has been written in the academic literature with medical journals devoting multiple series on child survival and child health from an international perspective. However, most do not provide 'upstream' solutions for the 'upstream' problems that account for most child health outcomes. Even fewer governments and countries have been willing to grapple with the upstream determinants of health to advantage children's health, rather than corporate wealth.

### **The Global Level**

There is substantial evidence that the key to improving child health, particularly in low income countries, is the reduction and eventual elimination of poverty. Jeffrey Sachs, in his book 'The End of Poverty', believes that development aid is the key to reducing poverty in poor countries and improving the health of its citizens. He describes number of strategies to end poverty, and achieve the Millennium Development Goals (MDGs) set by the WHO. There are 8 Millennium Goals:-

1. Eradicate extreme poverty and hunger.

2. Achieve universal primary education.
3. Promote gender equality and empower women
4. Reduce child mortality
5. Improve maternal health.
6. Combat HIV/AIDS, malaria and other diseases
7. Ensure environmental sustainability
8. Develop a global partnership for development.

Sachs's recommends a number of well supported strategies including:-

- Primary education for all children, with designated target ratios of pupils to teachers.
- Nutrition programs for all vulnerable populations
- Universal access to antimalarial bed nets for all households in regions of malaria transmission.
- Access to safe drinking water and sanitation.
- One-half kilometre of paved road for every thousand of population.
- Access to modern cooking fuels and improved cooking stoves to decrease indoor air pollution.

He also claims the targets of the MDGs are achievable through a commitment by wealthy countries to end poverty, and investment by the wealthy countries of the world of 0.7% of their GDP in development aid. However, Peter Townsend of the London School of Economic and Political Science argues that there is not much discussion by Sachs on the role of transnational corporations and their increasing power and influence over poor and wealthy countries, the lack of adequate representation in UN organisations and the 'institutional hierarchy of power'. He also argues that development aid from wealthy countries (of 0.7% of GDP) was declared more than 50 years ago but commitment remains poor.

In addition to Sachs's recommendations, Townsend recommends enforcing accountability and public service on transnational corporations through international and national company law. An international tax, could provide the resources for a UN-directed investment program to subsidise the urgent development of cash and in-kind benefit schemes. The administrative infrastructures, he argues, would become a source of social stability and democratic government to deal with the problems of conflict and disease..

The Peoples Health Movement, a global coalition of grassroots and health activist organisations dedicated to addressing the burden of preventable disease globally but in particular that carried by developing countries provided a critique of the Bangkok Charter for Health Promotion. Their recommendations included:-

- Further cancellations of unsustainable and unjustified debt
- The democratic reform of the International Monetary Fund and World Bank
- Promotion of appropriate global redistribution and the public financing for essential services to all citizens

- The renegotiation or even scrapping of multilateral and bilateral trade agreements that have negative impact on public health
- The adoption of an agenda to repair and develop the capacity of public sector health systems in all countries particularly developing nations

### **National Level**

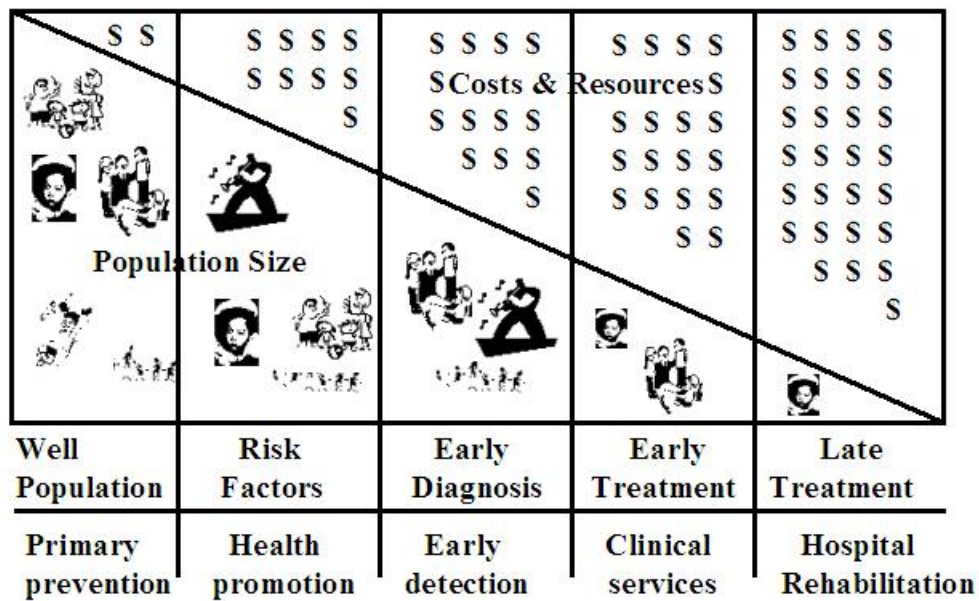
At a National level, child survival and child health and well-being must be positioned as a high priority on political, economic and health agendas. Demand for treatment of disease will never be met, especially in low and middle-income countries. At some point governments must act to invest in prevention, promotion of health and early intervention. Failing to do that will result in ever increasing demand for treatment of disease. There is increasing evidence that to improve child health the following approaches by National governments should include:-

- Investment in the early years of childhood. James Heckman, the 2000 Nobel Lauriat in Economic Sciences produced research demonstrating “investments in social policies that intervene in the early years (preschool and transition to school) have very high rates of returns, while social policies that intervene at later stages in the life cycle have low economic returns.” Quality child care and preschool for disadvantaged communities have demonstrated (the Perry Preschool Program in the USA) that for ever \$US1 invested, at 40 year follow up \$US17 is saved, mostly through reduced crime, welfare costs and tax gains on higher incomes. Home visiting programs for disadvantaged first time teenage mothers from the antenatal period to age 2 years have revealed that for every \$US1 spent on the program, at 15 year follow up \$US5 is returned to society. However, investment in children must not be seen purely as an economic benefit, but an investment for the health and well-being of children to provide them with the best possible start to life. The investment must not be limited to childhood. A whole of life approach is necessary, with critical periods identified for greater emphasis for better outcomes across the life span.
- Multisectoral collaboration at the most senior levels in planning and policy development, since most health outcomes have multiple determinants and all government departments have the ability to influence child health.
- Promotion of equity over economic growth, and individual and corporation wealth. Hypothetical modelling has indicated that policies that promote equity through universal and targeted policies for the poor achieve better service coverage. The state of Kerala in India, Cuba and Costa Rica are well known examples of poor populations with an emphasis on equity, and that have far better health outcomes in relation to their state of wealth (or lack thereof).
- Planning of the workforce to include public health workers with a population health perspective and skills. As specifically relates to child health there is a need to train not only paediatricians, but child public health physicians who can

provide the population health perspective and expertise in prevention, promotion of health and well being, and early intervention. There needs to be a better balance between management of illness and disease, and maintaining and promoting the health of populations. Figure 2 is a conceptual model of the relative population size of those amenable to prevention and early intervention through to those requiring treatment for disease and rehabilitation, and the dollar amounts reflect the relative proportions of money spent. Each component would vary in size by country or community. Investment in prevention and promotion of health would allow reduction in costs for treatment of disease over time.

- Invest adequately in monitoring and evaluation of outcomes and strategies in order to obtain the best possible outcomes from investments and programs.

Figure 2. Improving Child Health – The Balance



Alperstein G, et al. Health gain for children and youth of Central Sydney. Strategic Plan: 1996

*Reproduced by kind permission of Central Sydney Area health Service from “Health Gain for Children and Youth of Central Sydney. Strategic Plan”*

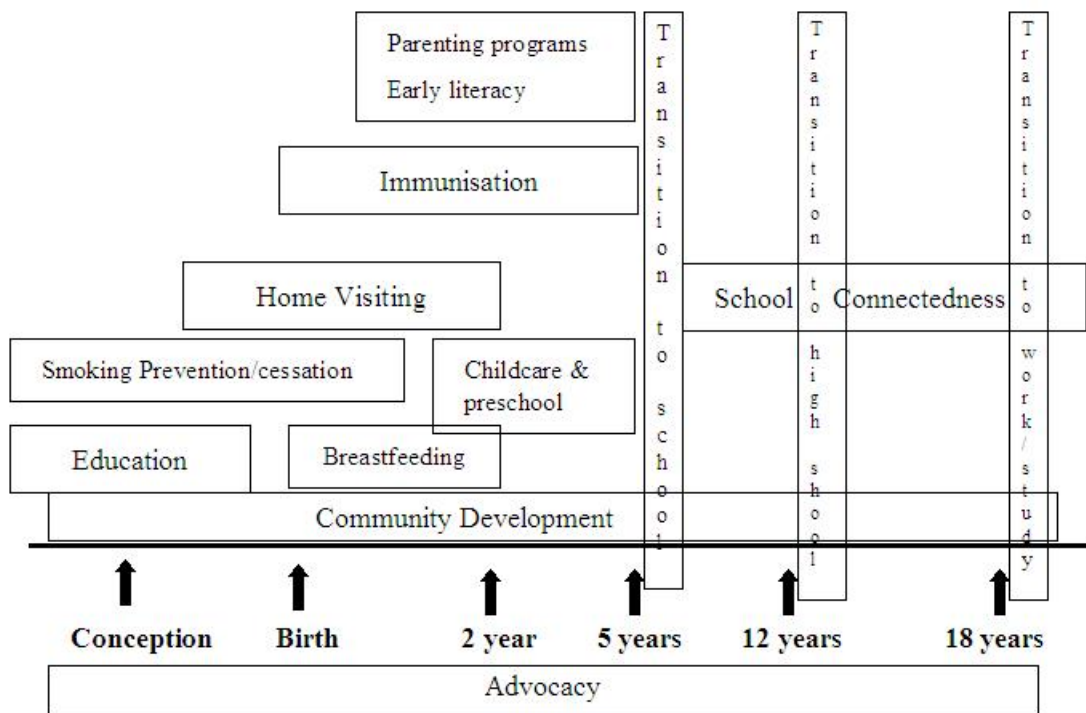
### Local Level

At the local level it is as important to apply the same principles as at the national level of mutisectoral collaboration in planning and implementing strategies, taking a population



perspective, as well as an individual child perspective, and focussing not only on treatment but on prevention and early intervention with universal and targeted strategies. Key strategies, in a developed world context, along the life span from conception to age 18 years, for improving child and youth health from a population and prevention perspective, also promoting optimal intellectual, emotional and social development of children can be summarised in the following diagram.

Figure 3. Key interventions for improving child health and social outcomes



Modification of 'Key initiatives to achieve health gain for children'. Nossar V, Alperstein G. NSW Public Health Bulletin 1998;9(11):126-127

*Reproduced by kind permission of NSW Public Health Bulletin from "Key initiatives to achieve health gain for children."*

Although low and middle income countries would be focusing on well established strategies to prevent death, when resources become available these countries should consider investment in promoting well being and child development. Home visiting by nurses may not be affordable, but other forms of parental support requires further research using community mothers has been trialled in Kayalitcha, South Africa.

## **Conclusion**

Without addressing political, social and economic power structures, little will be achieved for the health of children and youth and inequalities in health outcomes. The development of a workforce that will bring a population and prevention focus to child health is imperative to improve population child health outcomes. Leadership from the top and advocacy from the coalface will be required to promote the necessary changes at the global, national and local levels.

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## **Summary Box – Key Messages**

Worldwide the health of children is improving, but inequalities in health outcomes are increasing

Child health is predominantly determined by the upstream determinants of health

To improve overall child health and reduce inequalities, the issue must be addressed at a global, national and local level.

A shift in focus and commitment to prevention and early intervention, and investment in the early years of life is critical.