

Special session (1)

**PROMOTING FUTURE HEALTH.  
Why are our children and what they learn in school so important?**

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This conference celebrates advances in applied science and health research intended to benefit all sections of society, from the very young to the very old. This is the nature and strength of research inquiry. Each of us brings our own interests, expertise and experience to the research we do, and as a children's doctor my focus is naturally on the health and future wellbeing of children. However, there are compelling practical and scientific reasons why children should be the focus for much health sciences research. And one of these is the strong economic argument that governments should invest in children as they are the future of our society, and the benefits from initiatives that improve their health will last throughout their lifetime.

Often a strong economic argument is the best way to translate your research into a practical reality. Some of the best examples come from injury prevention where, because of an intervention, the cost to society of long term handicap is avoided. And now research indicates that intervening with children and young people to prevent chronic non-communicable diseases (NCDs), like Type 2 diabetes, coronary artery disease, high blood pressure and stroke, can have strong health and economic benefits. Treatment of NCDs in adult life is placing a huge financial burden on most countries. This area of research is called the Developmental Origins of Health and Disease (DOHaD); and it provides compelling evidence that fetal wellbeing in utero and growth and nutrition during infancy determine in large part, whether or not an individual goes on to develop a NCD in adult life.

However, an obvious challenge for intervening with DOHaD-derived prevention strategies is how to engage and educate the 'at risk' population in a way that promotes healthy behaviors. Because effective intervention requires that fetal micronutrient provision and growth throughout pregnancy are optimal, and care and nutrition during infancy sustains normal growth, there is an implicit requirement that young people are engaged. Traditionally, youth are not a sub-set of the population who prioritize or even seriously consider their future health or that of their potential partners, let alone their offspring. Yet to reduce the burden of NCDs, children need to learn the facts necessary to adopt healthy behaviors before they become pregnant and give birth to children of their own.

The WHO Health Promoting School (HPS) model has proven success engaging youth in the context of improving health, disseminating knowledge effectively and positively impacting future behaviors, particularly in low resource settings. The HPS model is flexible, based on a process of community engagement, and represents an avenue for health promotion aimed at impacting a range of health and lifestyle issues; so it is promising as a way to begin youth engagement regarding the DOHaD agenda. Schools provide the most efficient and effective way to reach large portions of the population, and WHO now recommends HPS strategies in low and middle income countries, as the burden of disease, disability and premature death is disproportionately high, and many of the causes are preventable. There

are many examples of how imaginative school-based programs have successfully improved health issues that range from poor oral health, through loss of school due to malaria, to promoting condom use and knowledge about HIV.

Challenges exist worldwide over how to educate the next generation in the context of health. Using school-based programs offers a flexible and inexpensive avenue. With informed political action, broad participation and inspired advocacy, initiatives that share ‘knowledge’ and teach ‘healthy practices’ using the WHO HPS model have great potential to offer.

## **REFERENCES**

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