

WHAT MINISTRIES OF EDUCATION NEED TO KNOW

Noncommunicable diseases

KEY POINTS

- Addressing noncommunicable diseases (NCDs) and their risk factors supports the educational development of children.
- Children and adolescents are being increasingly exposed to tobacco, alcohol, unhealthy diet and physical inactivity. Life-long health behaviours are shaped during childhood and adolescence.
- The education sector has a fundamental responsibility to protect children's health and well-being.
- Support of educators and peers is essential.
- Empowered children and youth can encourage healthy families and healthy communities.

1. Addressing NCDs and their risk factors supports the educational development of children

- Children often have to take care of family members that have heart disease, chronic respiratory disease, cancer or complications associated with diabetes. As a result they miss school. In addition, the high costs of medical care often push families into poverty, preventing some children from going to school. This is particularly so for girls. Child caregivers can suffer from stress which further increases their vulnerability.¹⁻²
- Tobacco and alcohol use, having an unhealthy diet and being physical inactive all keep children and adolescents from making the most of their education. Well-nourished, physically active children learn best. Tobacco (nicotine) and alcohol are addictive, and addiction impairs learning. Alcohol use negatively impacts brain structure and function in children.³ Alcohol use also results in violence, road traffic injuries and unwanted pregnancies, all of which interrupt education.
- NCDs are increasing in children. The growing burden of obesity, diabetes and other NCDs poses perhaps the greatest threat to the billions of young people in the world today.⁴ Type 2 diabetes used to occur nearly entirely in adults, but is now seen in children too.⁵ Onset of NCDs in children impacts educational attainment.⁶ Overweight and obese children are more likely to suffer from depression, low self-esteem and other behavioural and emotional difficulties as well as stigmatization and social isolation.⁷⁻⁸ The long-term impact will be children missing school more often, with resources being directed from education into the healthcare and psychosocial support of children with NCDs.

Sustainable Development Goal 3 on health and wellbeing includes targets on the prevention and control of NCDs. Addressing NCDs will help the education sector provide children and youth with a nurturing environment for the full realization of their rights and capabilities, and high quality education for all, in line with SDG 4.

What are NCDs and why must government work together

There are four main NCDs: cardiovascular diseases (which include heart disease and strokes), cancers, diabetes and chronic respiratory disease.

38 million people die from NCDs each year, including 16 million people who die prematurely (before age 70). Over 80 percent of premature deaths from NCDs occur in low- and middle-income countries. Most premature NCD deaths are from four main behavioural risk factors – tobacco use, harmful use of alcohol, physical inactivity and unhealthy diet.

Population exposure to these behavioural risk factors for NCDs is determined largely by policies in trade, education, labour, tax, urban planning and other 'non-health' sectors. This means that early death and disability from NCDs are largely avoidable through better policy coherence across sectors.

Given the social, economic and environmental burdens of NCDs, it is possible to identify strategies and approaches that deliver shared gains for all sectors involved.



1 UNDP (2013). "Addressing the Social Determinants of Noncommunicable Diseases." <http://www.undp.org/content/undp/en/home/librarypage/hiv-aids/discussion-paper-addressing-the-social-determinants-of-noncommu.html>

2 NCD Alliance (2011). "A Focus on Children and Non-Communicable Diseases." https://ncdalliance.org/sites/default/files/resource_files/20110627_A_Focus_on_Children_&_NCDs_FINAL_2.pdf

3 Tapert, SF, Caldwell, L, and Burke, C. "Alcohol and the Adolescent Brain – Human Studies." <http://pubs.niaaa.nih.gov/publications/arh284/205-212.htm>

4 The majority of children who are overweight and obese now reside in low- and middle-income countries.

5 WHO (2016) "Global Report on Diabetes." http://apps.who.int/iris/bitstream/10665/204871/1/9789241565257_eng.pdf

6 Muller-Riemenschneider, F, et al. (2008). "Health-economic burden of obesity in Europe." *Eur J Epidemiol*, 23: 499-509.

7 Pizzi, M, and Vroman, K (2013). "Childhood obesity: effects on children's participation, mental health, and psychosocial development." *Occup Ther Health Care*, 27: 99-112.

8 Miller, A, Lee, H, and Lumeng, J (2015). "Obesity-associated biomarkers and executive function in children." *Pediatr Res*, 77: 143-7.

2. Children and adolescents are being increasingly exposed to tobacco, alcohol, unhealthy diet and physical inactivity. Life-long health behaviours are shaped during childhood and adolescence

Better health means better education and better education means better health.⁹ More than ever before, children and adolescents are facing intensive, targeted and manipulative industry marketing of tobacco, alcohol and unhealthy foods and beverages. Countering this pressure at an early age is critical. Over half of NCD-related deaths are associated with behaviours that begin or are reinforced during adolescence.¹⁰

Education is an enabler of full employment. An equalizer of both opportunity and outcome, education lifts individuals and societies out of poverty and drives economic growth. What sense does it make to prepare children for a lifetime of contributing to society, only to watch those same children suffer or die early from a preventable NCD?

The report of the WHO commission on ending childhood obesity¹¹

Published in 2016, the Commission report highlights the crucial role of the education sector in tackling childhood obesity. A number of its recommendations are targeted at schools. The report is an excellent resource for guiding the education sector.

3. The education sector has a fundamental responsibility to protect children's health and well-being

It should strongly consider:

- Ensuring that schools are 100 percent free of tobacco and alcohol;
- Promoting healthy eating and physical activity at all levels of education, including through the health promoting schools initiative;¹²
- Establishing standards for meals provided in schools, or foods and beverages sold in schools, that meet healthy nutrition guidelines;¹³
- Providing safe and free drinking water in schools;
- Banning the marketing and advertising of tobacco and alcohol in schools; ensuring that regulations concerning the marketing, advertising and sale of tobacco, alcohol and unhealthy foods and beverages in the vicinity of schools are being enforced;
- Banning educational or sports scholarships or sponsorships by tobacco and alcohol companies, as well as those that sell processed foods and beverages high in fat, sugar and/or salt;
- Incorporating quality physical activity into the daily curriculum for boys and girls, including during lunch and other breaks;¹⁴
- Promoting extracurricular physical activity (e.g. walk or cycle to school programmes);
- Ensuring the core curriculum (for example in home-economics or life-skills) includes learning about the risks associated with tobacco, alcohol, unhealthy diet and physical inactivity;
- Building the knowledge and skills of parents, caregivers and communities regarding NCDs and their risk factors;

9 WHO (2008). "Closing the gap in a generation: Health equity through action on the social determinants of health: Final report of the Commission on Social Determinants of Health (CSDH)." http://www.who.int/social_determinants/thecommission/finalreport/en/
10 AstraZeneca Youth Health Programme, in partnership with others. "Non-communicable Diseases and Adolescents: An opportunity for action." <http://www.jhsph.edu/research/centers-and-institutes/center-for-adolescent-health/az/noncommunicable.pdf>
11 WHO (2016). "Report of the Commission on Ending Childhood Obesity." http://apps.who.int/iris/bitstream/10665/204176/1/9789241510066_eng.pdf

12 WHO. "What is a health promoting school?" http://www.who.int/school_youth_health/gshi/hps/en/

13 As recommended verbatim in the Report of the Commission on Ending Childhood Obesity.

14 Those aged 5–17 years should accumulate daily at least 60 minutes of moderate- to vigorous-intensity physical activity (play, games, sports, transportation, chores, recreation, physical education, or planned exercise, in the context of family, school, and community activities).

- Providing health and psychosocial support services to children and youth who are affected by NCDs directly or indirectly.¹⁵

A call to action

Through the 2030 Agenda for Sustainable Development, entire governments – not just health ministries – have committed to support national NCD responses.

The education sector is an essential part of the government's response to NCDs.

“Schools are a ready-made environment in which to offer children and young people healthy food and beverages, and to promote healthy behaviour overall. We must empower youth to adopt healthier diets and increase their physical activity. In turn this will help their ability to learn. NCD prevention and control is a foundation for long, productive, and better lives.”

UNDP Administrator Helen Clark, 20 June 2016



4. Support of educators and peers is essential

Teachers are not just educators. They are also role models. They have a profound effect on students' propensity for health-harming behaviours such as alcohol and tobacco consumption as well as unhealthy diet. The same is true of peers. Young people from around the world complain about teachers who smoke in or near school¹⁶ and coercion from older peers to start smoking.¹⁷ Supporting staff to adopt healthier behaviours and addressing peer pressure when it comes to unhealthy behaviours is important. This includes:

- Ensuring that non-smoking and non-alcohol policies apply also to staff and parents, both on the premises during school hours and during organized school travels;
- Offering tobacco cessation support to staff and their families and providing counselling to overweight staff as well as staff with alcohol use disorders or hazardous drinking patterns;
- Ensuring food available to staff is low in salt, sugar and saturated/trans fats. For example, policies should be in place to ensure that food and drink supplied by vending machines are healthy;¹⁸



¹⁵ The education sector can benefit NCD responses by making sure it reaches as many students as possible. Almost universally, those groups with the lowest education are also those most affected by NCDs. They have the highest levels of tobacco and alcohol use. Their diets tend to be higher in fat, sugar and salt and lower in fruits and vegetables; and in mechanized and urban societies, they are less likely to engage in regular physical activity. Furthermore, often low education intersects with poverty, gender and minority status with an amplifying effect. As a result, education can provide opportunities to break the vicious circle and reduce the disadvantages that make some populations and groups more vulnerable to NCDs. Attention to gender gaps in schooling can make sure these benefits accrue to both sexes.

¹⁶ See e.g. the Armenia Post 2015 National Consultation, in which children complain that teachers smoke in front of them or during lessons. <http://www.worldwewant2015.org/node/370987>

¹⁷ See UN Habitat (2012). "Young people, participation, and sustainable development in an urbanizing world." <https://www.worldwewant2030.org/node/300563>

¹⁸ Vending machines are often a source of unhealthy food.

- Providing opportunities for staff to engage in physical activity;
- Providing anti-bullying sensitization to students, with guidance on differences between positive and negative peer support.

An impediment to offering knowledge and skills on NCDs in schools is pushback from administrators/teachers who worry that doing so will divert time/attention from the school's primary mission.¹⁹ It is important to convey that improving health and well-being needs to be central to the mission of schools and colleges. Teachers should play a key role in developing knowledge and skills-based approaches for incorporating health and well-being into the curriculum.

The education sector must ensure that school environments are a safe haven for students, rather than a confined space of heightened exposures and pressures from teachers and older peers.

5. Empowered children and youth can encourage healthy families and communities

The education sector has the power to reach the local community in addition to students attending the school or college. Families, businesses and community leaders can all benefit from its leadership. Children can successfully encourage their parents and communities to adopt and maintain healthier lifestyles.^{20, 21, 22}

Across the world, nearly 2 billion people are between the ages of 10 and 24, the largest percentage of young people ever.²³ There is a tremendous opportunity for the education sector to support programmes that inject youth leadership into local NCD responses, and to promote enabling environments for children and adolescents who are outside of formal education.



19 Waters, E, et al. (2011). "Interventions for preventing obesity in children." *Cochrane database of systematic reviews*, 12(CD001871).

20 Gunawardena, N, et al. (2016). "School-based intervention to enable school children to act as change agents on weight, physical activity and diet of their mothers: a cluster randomized controlled trial." *International Journal of Behavioural Nutrition and Physical Activity*, 13:45.
 21 Fornari, L, et al. (2013). "Children First Study: how an educational program in cardiovascular prevention at school can improve parents' cardiovascular risk." *Eur J Prev Cardiol* 20: 301–9.
 22 He, F, et al. (2015). "School based education programme to reduce salt intake in children and their families (School-EduSalt): cluster randomised controlled trial." *BMJ* 350: h770.
 23 UNFPA (2014). "The power of 1.8 billion: adolescents, youth and the transformation of the future." https://www.unfpa.org/sites/default/files/pub-pdf/EN-SWOP14-Report_FINAL-web.pdf



6. Getting started...

In the first instance, the education sector needs to:

- Promote the policies in this brief that ensure a healthy school and community environment;
- Integrate health and well-being, including NCDs and their risk factors, into school curricula;
- Ensure their leadership is reflected in relevant cross-government health and development policies, plans and programmes.²⁴

Premature deaths and avoidable suffering from NCDs are the scourge of the 21st century. But with the right policies, the right investments, and the right support from all partners, the tide can be turned on NCDs.



²⁴ Tobacco taxation is a key intervention. Often the revenues from such taxes are earmarked for the education sector.

© World Health Organization and United Nations Development Programme 2016. All rights reserved.

Development of this brief was coordinated by a joint WHO and UNDP team. This brief is for advocacy purposes and provides a set of options for action. It does not represent an official position of WHO or UNDP and has not been shared with their respective governing bodies. References to Member States and partners do not constitute or imply any endorsement whatsoever of this brief.

WHO/NMH/NMA/16.93

