

6 | *SDG4, education: education as a lever for sustainable development*

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6.1 Introduction

During the past generations, education has become a principal pathway to good health, financial security, stable employment and social success. The remarkable progress reaffirms the belief that education is one of the most powerful and proven leverages for sustainable development and peace. Education is strongly associated with life expectancy, morbidity and health behaviours, and educational attainment plays an important role in health by shaping opportunities, employment and income. As such, it is widely recognized that health and education are mutually influential. Education can create opportunities for better health, and an individual's health can influence their educational achievement and outcomes. However, the provision of quality schools, textbooks and teachers can result in effective education only if a child or student is in school and ready and able to learn. A child who is hungry or sick will not be able to complete a basic education of good quality. The challenge remains on how to develop and sustain empowered learners who can benefit from health to develop their potential and lifelong learning opportunities.

The vision of the 2030 Agenda for Sustainable Development envisages a world with universal literacy and with equitable and universal access to quality education at all levels (United Nations, 2015). The ambitions regarding education are essentially captured in the Sustainable Development Goal 4 (SDG4) of the 2030 Agenda which aims to “ensure inclusive and equitable quality education and promote lifelong learning opportunities for all” by 2030. The targets include free, equitable and quality education; access to early childhood development; and safe, healthy and inclusive schools (United Nations, 2015). Coordinated by UNESCO, *The Education 2030 Framework for Action* which was adopted in 2015 provides a framework for action through partnerships, policy guidance, capacity development, monitoring and advocacy (UNESCO, 2021). Nevertheless, according to UNESCO, every goal

in the 2030 Agenda requires education to empower people with the knowledge, skills and values to live in dignity, build their lives and contribute to their societies.

Mostly, educational attainment is treated as a driver of opportunities in adulthood; however, education also functions to reproduce inequality across generations. The recognition of the dual impact of education is critical to developing education policies that would avoid unintended consequences of increasing inequalities. Moreover, education and health are inextricably embedded in different historical and social contexts which may induce substantial variations in health-education associations that need to be acknowledged to exacerbate or reduce educational disparities in health (Zajacova & Lawrence, 2018).

While governments hold the main responsibility for ensuring the right to quality education, the 2030 Agenda is a universal and collective commitment. It requires political will, global and regional collaboration and the engagement of all governments, civil society, the private sector, youth, United Nations and other multilateral agencies to tackle educational challenges and build systems that are inclusive, equitable and relevant to all learners for the benefit of social development and sustainability (UNESCO, 2021).

Education as a social determinant of health has been widely explored and much evidence is available (Ross & Wu, 1995). Population groups defined by a low educational status consistently show a greater disparity in terms of health despite differences between and within countries (Gumà, Solé-Auró & Arpino, 2019). Moreover, education influences an individual's health at different life-course stages (from adulthood to advanced age), as well as mediates the long-term influence of early-life conditions on health (Arpino, Gumà & Julià, 2018). The impact of education on health differs between women and men (Gumà, Solé-Auró & Arpino, 2019) and, as a consequence, both lowers female representation in the labour market and reinforces the gender wage gap (Ross & Mirowsky, 2010; Ross, Masters & Hummer, 2012). Nevertheless, the role of health on education and its contribution to social sustainability is less prominent. Therefore, the aim of this chapter is to explore the co-benefits of health on education as a lever of the sustainable development goals. Research and transformative health actions are showcased with regards to health literacy, school health programmes, and health-related workforce capacity to reveal how health becomes an enabler and a proponent for progress on education and sustainable development.

6.2 Background

The 2030 Agenda for Sustainable Development is a plan of action with 17 goals for people, planet and prosperity. SDG4 on education aims to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all by ensuring that all children complete free, equitable and quality primary, secondary and tertiary education leading to relevant and effective learning outcomes. Moreover, SDG4 helps to increase the number of youth and adults who have relevant skills for employment, decent jobs and entrepreneurship to promote sustainable development, and ensures the relevant workforce conduct education without leaving anyone behind (United Nations, 2015).

Generally, basic literacy skills across the world have improved tremendously. According to the *SDG Tracker*, so far major progress has been made towards increasing access to education at all levels, particularly for women and girls. The total enrolment rate in developing regions reached more than 90% in 2015 and the number of children out of school dropped by almost half (SDG-Tracker.org). Yet bolder efforts are needed to achieve universal educational goals for all. According to UNESCO, to create a more sustainable world and to engage with issues related to sustainability, individuals must acquire knowledge, skills, values and attitudes that empower them to contribute to sustainable development as change-makers. Empowered learners are enabled to take informed decisions and act responsibly for environmental integrity, economic viability and a just society, for present and future generations (UNESCO, 2017).

6.3 Education as a structural determinant of health

The level of educational attainment is increasingly being recognized as an important social determinant of health (CSDH, 2008). While higher educational attainment can play a significant role in shaping employment opportunities, it can also increase the capacity for better decisionmaking regarding one's health and provide scope for increasing social and personal resources that are vital for physical and mental health.

People who have access to quality education throughout their lives tend to stay healthier than people without access to quality education. Not only does education give individuals a chance at upward mobility, which places them in better financial circumstances to access quality

health care, it also keeps them better informed about how to take care of their health. Less education is linked to lower income, which is linked to poorer health. Numerous studies show that people in lower socioeconomic situations experience more obesity, asthma, diabetes, heart disease and other health problems than people in better financial circumstances. Moreover, higher education helps people secure higher paying work with fewer safety risks. Ultimately, more highly educated people have greater economic resources to afford things like better housing far away from environmental toxins and expert doctors trained in the most effective techniques.

Essentially, improved health and educational outcomes in school increase the potential for greater economic benefits for children when they reach adulthood because of enhanced career opportunities as well as better physical and emotional health, and these effects can be passed down to future generations (McDaid, 2016).

6.4 Health as a proponent of education

Evidently, health is also a proponent of education, and it will be explored in more detail using three concrete examples. First, the rising discourse of health literacy is presented and contextualized with regards to its impact on educational outcomes. Second, the role of learning for health and wellbeing in school settings is highlighted as a systemic approach to amplify the mutual impact of health and education. Lastly, the important role of the health workforce as an educational capacity is discussed as an instrument to lever societal impact on sustainable development.

6.4.1 Health literacy

Health literacy entails the knowledge, motivation and competencies to access, understand, appraise and apply information to form judgements and make decisions regarding healthcare, disease prevention and health promotion in everyday life to maintain and improve quality of life during the life course (Sørensen et al., 2012). Increasingly, the importance of pushing the health literacy agenda forward is being recognized by decisionmakers (Quaglio et al., 2017). Strategies and means are being applied to bridge the gap, for instance, through the implementation of national action plans on health literacy and intervention programmes (Rowlands et al., 2018).

Health literacy can be measured at individual, family, organizational, community, population and societal levels (WHO, 2013). The first European Health Literacy Survey found that on average almost one in two of the surveyed adult population had suboptimal general health literacy and that this finding was linked to lower self-rated health, higher rates of chronic (i.e. long-term) health conditions, more adverse lifestyle choices (exercise, body mass index and alcohol) and higher use of health services (Sørensen et al., 2015). Despite the efforts of many European welfare states to develop effective healthcare systems and educational systems, limited health literacy remains a challenge for certain population groups such as people of age, people facing socioeconomic deprivation or those impacted by ethnic minority-related stigma (M-POHL, 2021).

Within the WHO European Region, health literacy is recognized as an enabling measure to advance the implementation of the 2030 agenda by strengthening leadership and governance, reducing health inequalities, preventing disease, establishing healthy settings and achieving universal health coverage, and to achieve the highest attainable



Fig. 6.1 SDGs influenced by strengthening health literacy

Source: WHO, 2021

standard of health and wellbeing for all at all ages and for future generations (WHO, 2019). Health literacy accelerates the outcomes of various SDGs in various ways (WHO, 2021).

6.4.2 *The impact of health literacy on educational outcomes*

Health literacy impacts educational outcomes, directly and indirectly (Dadaczynski et al., 2020; McDaid, 2016; Sørensen & Okan, 2020). The indirect path is demonstrated by the well established causal influence health indicators can have on different educational aspects such as school grades, early school-leaving or school attendance (Dadaczynski, 2012). Students who have higher levels of health literacy perceive their health to be better than those who perceive their health literacy to be lower (Paakkari et al., 2020). Similarly, they report having better self-esteem, being more satisfied with their life, having fewer health complaints (for example, psychosomatic complaints), and they also have more health knowledge (Paakkari et al., 2019). Better health literacy has also been associated with a lesser likelihood of becoming over- or underweight, as well as with several positive health behaviours, such as increased level of physical activity (Shih et al., 2016), less use of alcohol and less smoking (Fleary, Joseph & Pappagianopoulos, 2018), and better sleeping habits (Paakkari et al., 2019).

A suggested model from the School for Health in Europe Network provides an example of the interplay between health literacy, health and education (Okan, Paakkari & Dadaczynski, 2020). It focuses on micro- and meso-level factors but macro-level factors such as national health and education policies, national income, cultural context and institutional set-up are also crucial and should be considered inherent.

6.4.3 *Promoting health and wellbeing at schools*

Education systems and early childhood education and care services are continually searching for ways in which individuals, groups, organizations, communities or institutions can develop the capacities to make decisions and take actions to enjoy good health and wellbeing. New and stronger alliances are needed across sectoral interests to safeguard the creation of more just, inclusive and sustainable societies where everyone can realize their fundamental human rights and unique potential (Kickbusch, 2012).

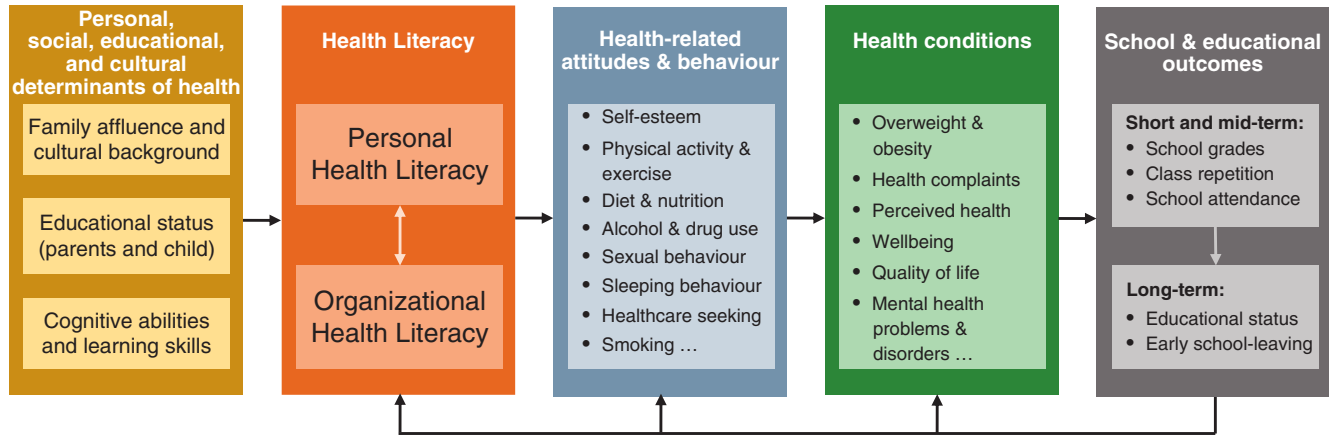


Fig. 6.2 The complex interplay between health literacy, health and education

Source: Okan, Paakkari & Dadaczynski, 2020

Although the relationship between healthy children and able learners has been well established, in practice many children remain insufficiently supported. According to the Child Health Taskforce (2021), estimates in low- and lower middle-income countries have found that annual public spending for health for ages 5–20 is less than US\$3 billion. In comparison, public expenditure for education is estimated to be more than US\$200 billion. Recognizing that health is a prerequisite for learning, these profound educational investments are likely to fail as inadequate health of children serves as a barrier to learning and development.

Globally, the number of children reaching school age is estimated to be 1.2 billion children, totalling 18% of the world's population, and 88% of these children live in less developed countries where there is a high prevalence of disease and illness. For instance, certain conditions that are prevalent among school-age children and adolescents can impair cognition, attention span and learning. To take one example, the average IQ loss for children with untreated worm infections is estimated to be 3.75 IQ points per child, and the average IQ points lost due to anaemia is even higher.

School Health and Nutrition (SHN) programmes are amongst the most cost-effective interventions that exist to improve both children's education and health. They can add 4 to 6 points to IQ levels, 10% to school participation, and an additional one to two years of education (World Bank, 2011). The focus has shifted significantly in the past two decades from a primarily medical approach to one that is embracing prevention and health promotion, especially among the most disadvantaged and vulnerable groups. School health programmes can cover, for example, both the prevention and treatment of disease and malnutrition in a school setting (Snilstveit et al., 2016). The programmes are designed to promote students' physical, cognitive and social development. They build on existing health infrastructure and community partnerships, as well as a skilled workforce in schools. A pervasive school system provides a platform for delivering simple health interventions to schoolchildren.

By magnitude, since there are more teachers than nurses and more schools than clinics, in cost-benefit analyses school health programmes often compare well with many other education interventions and have the additional advantage of optimizing the benefits of the education already being offered to poor children (Snilstveit et al., 2016). From the

health system's point of view, schools represent a cost-effective platform for reaching school-aged children with the interventions they need to achieve their potential human capital. From the educational system's point of view, the delivery of health services ensures that poor health of a child does not become a hindrance to learning, growth and cognitive formation. In this way, investments in school health and nutrition are synergistic and essential to other educational investments focusing on quality and access. Moreover, school health sets the stage for children to thrive and become change agents in their communities.

No education system is effective unless it promotes the health and wellbeing of its students, staff and community. These strong links have never been more visible and compelling than in the context of the COVID-19 pandemic. A multisectoral approach is needed to create optimal learning environments involving active engagement of several ministries, governmental and non-governmental stakeholders, pupils, students and staff as well as the wider school community. The widespread movements of Health Promoting Schools and Universities are examples of how the multisectoral approach can be applied in practice. The Health Promoting Schools approach was first articulated by WHO, UNESCO and UNICEF in 1995 and adopted in over 90 countries and territories. However, few countries have implemented it at scale, and even fewer have effectively adapted their education systems to include health promotion. In 2021, a new set of global standards was launched to help countries integrating health promotion into all schools to boost the health and wellbeing of their children (WHO & UNESCO, 2021). The standards highlight these eight action areas:

1. government policies and resources: the whole of government is committed to and invests in making every school a health-promoting school;
2. school policies and resources: the school is committed to and invests in a whole-school approach to being a health-promoting school;
3. school governance and leadership: a whole-school model of school governance and leadership supports a health-promoting school;
4. school and community partnerships: the school is engaged and collaborates with the local community for health-promoting school;
5. school curriculum: the school curriculum supports physical, social-emotional and psychological aspects of student health and wellbeing;



Fig. 6.3 Examples of stakeholders safeguarding health in school settings

6. school social-emotional environment: the school has a safe, supportive social-emotional environment;
7. school physical environment: the school has a healthy, safe, secure, inclusive physical environment; and
8. school health services: all students have access to comprehensive school-based or school-linked health services that meet their physical, emotional, psychosocial and educational health care needs.

6.5 Improving the capacity of people in vulnerable situations through health literacy

For certain risk groups, more targeted interventions may be needed. The MILSA initiative is a Swedish example which uses health literacy as a lever for better education and sustainable development among newly arrived refugees and migrants. The MILSA platform is a national educational platform facilitating training on civic literacy and health literacy. It involves courses and engagement of local health mediators that can respond adequately to the needs and concerns of newly arrived refugees to build capacity and help them settle in their new settings. It involves different actors such as municipalities, government institutions and civil society, and focuses on health, human rights and fundamental democratic values, individual rights and responsibilities, the organization of Swedish society and the health system, as well as everyday life in a Swedish context (MILSA, 2018).

6.6 The health workforce as a source of educational capacity

The health workforce serves as a major contribution to achieve the Sustainable Development Goals. Global health mandates and resolutions have consistently emphasized the need for health workforce strengthening through lifelong learning opportunities (WHO, 2020). However, the density of skilled health workers varies greatly, from 106.4 per 10 000 population in the European Region to 14.1 per 10 000 population in the African Region (WHO, 2017). In this regard, scaling up and integrating digital tools for health workforce development have been recommended as a pathway to increase the educational capacity.

A framework has been suggested by WHO (2020) which addresses the external, system-level, institutional and individual factors required to embed information and communication technologies as foundations for maximizing the potential of digital education and reducing the digital divide:

External factors include the level of digital and health literacy of the population, and the extent to which the target population is receptive to adopting innovations and ICT systems, as well as the degree of commitment and support of governmental and nongovernmental actors. The culture and receptiveness of learning audiences to digital education is important to consider; this pertains to the trust that learners implicitly have (or lack) in digital education methods compared with other means available.

System-level factors include the incorporation of health workforce development objectives in long-term plans and evidence-based policy, sufficiency of technical infrastructure, appropriate levels of funding, and robustness of multisectoral collaboration among stakeholders (for example, ministries of health, education, health academic centres, health care delivery organizations, IT companies). Digital education can address the standardization of the quality of curricula and accreditation mechanisms to allow for a uniform assessment of different educational institutions. Similarly, standardizing user interfaces/formats could play an important part in user acceptance.

Institutional factors include the level of organizational ownership, availability of infrastructure, governance, financing and management support, expertise in development of health education curricula and teaching resources using digital tools, and deployment of

education modules using appropriate digital health technologies, as well as training plans for developing human resources, teachers and administrators.

Individual factors include the beliefs, attitudes and behaviours of administrators, teachers, students and support staff involved in the educational and technical processes.

A professional, qualified and multidisciplinary workforce, in sufficient numbers, is vital to the organization and management of effective public health systems as a means to respond to the growing threats to population health, to address health inequalities between and within countries, and to develop and implement scientifically based interventions in a timely and appropriate manner within the limits of available resources. Capacity development is the process through which individuals, organizations and societies obtain, strengthen and maintain their capabilities to set and achieve their own development objectives over time. Capacity development goes well beyond the technical cooperation and training approaches that have been associated with “capacity building” in the past. The current health sector has widened their focus to include strengthening of individuals, organizations and the wider environment (or society), and not solely focusing on individuals as in the past.

Constant societal change implies an increased need to update educational sources. For instance, amid the COVID-19 pandemic situation, countries across the world introduced capacity development measures to prevent its spread, increase surveillance capacity, improve contact tracing, and increase isolation and quarantine capacity, as well as augmenting the capacity of hospitals (particularly intensive care units) and staff to effectively manage positive cases. Enhancing health system capacity for the design and implementation of strategies that minimize the impact posed by such crises will remain a critical determinant of progress towards achieving the sustainable development goals (Gera, 2020).

Relying heavily on inter-professional collaborations, there is also growing evidence from developed and developing countries that community-based approaches are effective in improving the public’s health for better education. Preventing disease and promoting health calls for a holistic approach to health interventions, including addressing the social determinants of health in which the health force plays a crucial role (Institute of Medicine, 2015).

6.7 The way forward to achieve more co-benefits of health and education for all

Despite shortcomings, the social and economic opportunities derived from the past decades of societal transformation have spurred a growing focus on health and wellbeing in countries around the world. The co-benefits include healthier populations, more efficient public health systems, and decreased literacy and poverty. Taking these benefits into account when planning political priorities and strategies may enable decisionmakers to address multiple social, environmental and economic barriers for better health to achieve better educational outcomes.

The aspects of mental, physical and emotional health are all critical to excellent academic performance. With the development of conducive environments and the nurture of good habits early on in life, there is an increased opportunity to implement an improvement in healthier lifestyles with the added benefit of a progression in educational performance. Countries like Finland and Iceland are frontrunners as they have included health education as part of their primary and secondary school curricula to maximize the co-benefits.

Moreover, the digital revolution has changed the demands for health and education in a contemporary context. Digital literacy is an area that is closely associated with health literacy and the improvement of education across generations. Education is no longer about maths, reading and writing alone; it is about knowing how to learn, de-learn and re-learn new issues relevant for modern living. Applied to health, the COVID-19 pandemic is an example of this perspective. When it appeared as a new condition, societies around the world had to understand its implications and apply new ways of living, such as the use of online services, to curb its impact for maintaining sustainable development.

While most attention has been given to the impact of education on health, advancing health and wellbeing remains a critical pathway to achieve education and lifelong learning. Sustainable development goes hand in hand with increased investments in health literacy, learning for wellbeing and capacity development. To compound the vested interest and impact, it is, therefore, recommended to provide a reorientation of systemic thinking and practice which build on health and wellbeing as central elements of achieving quality education during the life course.

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