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Policy Brief

EQUIP2
Educational Quality Improvement Program
Policy ▪ Systems ▪ Management

The Impact of Education Across Sectors: Health

Introduction

Understanding the complex relationships between policy sectors such as education and health becomes increasingly important as foreign assistance moves into a new era of evidence-based adoption of proven practices. In development there are no magic bullets. The sustainability of the most effective cross-sector interventions depends on interactions among policy, programs, social and individual behaviors, and beliefs.

Enjoying good health is a frequently unmet need of many citizens in developing countries. Demographic trends such as urbanization and aging, and threats from conflict and natural disaster add to the complexity of this challenge. Addressing this unmet need cannot be the sole responsibility of health institutions, however, as sustained improvements in health outcomes have been elusive when approached from within only the health sector. Mutual awareness, collaboration, and support between education and health institutions are essential. The design and implementation of programs that seek and acknowledge the health outcomes of education interventions help create an enabling and sustaining environment for improving people's health.

The first argument in this brief discusses key similarities and differences between health and education in relation to poverty and inequality. A second argument examines the causality going from education interventions to health outcomes, including the effects on socioeconomic status. A third argument reviews some of the most important educational interventions that lead to significant health outcomes, as issues that foreign aid must prioritize even when focusing on health. The brief concludes by suggesting that education and health are mutually dependant aspects of development and should be considered together in policy, budget and programmatic decisions.

Health, Education, and Poverty

Health and education are each recognized as human rights (UN 1948; UN 1966; UNESCO 2004), as services that help us fulfill our dreams and purposes (Sen 1984), and as investments with economic and social returns (World Bank 2008; Abelson 2001). From a public sector perspective, these three dimensions translate into duties for the state, entitlements for citizens, and areas for policy and service provision that promote economic growth and social development (UNESCO & UNICEF 2007; Chapman 1994).

The Millennium Development Goals, as globally agreed pathways to reduce poverty and enhance equality (UN 2000; UNDP 2010), underline the interlinked nature of health and education as being both results of and preconditions for social and economic progress. This relationship means that, in most societies, when inequality is present, it manifests itself in both health and education. People on the lower rungs of the social

ladder tend to experience lower levels of school attainment and life expectancy and have less access to quality health and education services. Among other factors, if education is lacking a vicious cycle traps the current and next generations in poverty that includes ill health (Moore, 2004). Beyond this, by contributing to equality, a better education contributes to improved health.

The persistence of disease among disadvantaged people despite interventions addressing their health needs has led health sociologists to assert that poor social conditions are not simply to be considered a context for disease, but rather must be understood as a fundamental cause leading to disease. Resources like knowledge, money, and social connections define whether people are able or not to avoid health risks and mitigate the consequences of disease once it occurs (Link & Phelan 1995). Education contributes to developing and accessing such resources in individuals, families and groups, and thus improves living conditions, expands social networks, and makes financial health protection desirable and accessible (Phelan, Link & Tehranifar 2010).

Exploring Causality: How gaps in education impact health conditions

There has been a long standing associate between education and health that is well documented in the literature. Educated people have lower morbidity rates from acute and chronic diseases and longer life expectancy (Cutler and Lleras-Muney, 2007). Education is a value-adding process in which people's skills, including literacy and numeracy, are improved (Chiswick, Lee & Miller 2002). Higher levels of schooling have been associated with higher earnings. The rate of return on resources invested in increased schooling is higher for low-income countries, for lower levels of schooling and, frequently, for women (Psacharopolous & Patrinos 2002). Education quality—actual learning, rather than simply access—has proven to be critical. For instance, measured as achievement in standardized tests, an increase of one standard deviation in performance in mathematics at the end of secondary school translates into 12 percent higher annual earnings (Hanushek & Wößmann 2007). These effects of education on socioeconomic status (SES) are important for this discussion because SES affects health conditions in several ways (Currie 2009; Baker, Leon, Greenaway, Collins and Movit 2011, Muenning 2005). How they relate to health has been acknowledged for many years (Ross and Wu 1995). For example:

- Both formally (by providing accreditation) and practically (by providing improved competencies), education can contribute to a better job and income. This improvement can lead to earlier and sustained health care, either through insurance or simply as a result of greater purchasing power.
- A better job and income also improves living conditions – running water, drains and screens on windows are more likely in higher income households. Better-paid jobs, especially in the formal sector, also tend to place people in workplaces with lower hazards and better safety measures. Additionally, a better job and income also contribute to greater personal and family security.

Though the poorest of the poor may still face mainly the challenges of lack of basic water and sanitation, the stresses accompanying an uncertain income are not foreign to the growing numbers of the urban poor throughout the developing world.

Education can also shape health directly through its effects on cognition. Knowledge acquired and attitudes developed through education affect behavior vis-à-vis health risks. These improved behaviors impact everything from decisions about hand washing, teen pregnancy and smoking, to exercise and healthy diets. Literacy mediates the relationship between education and health directly in health systems that are increasingly dependent on written language for conveying information and in handling chronic diseases (Schillinger, Barton, Karter, Wang and Adler 2006).

In consequence, members of households with lower SES, who also have lower levels of school attainment, have the highest probabilities of disease, injuries, and death. Conversely, investments in quality education for all contribute to sustained health outcomes.

Promoting Policy Options: Investing in education for better, sustainable health outcomes

Representative Nita Lowey accurately summarized the importance of putting education at the top of any budget priorities: "Education is an essential foundation for health, economic development, gender equality, and long-term security." (House Appropriations Subcommittee on Foreign Operations and Related Programs session March 30, 2011). However, the compartmentalization and competition among institutional policy sectors frequently obscures the supporting and enabling role played by education in health. Beyond this, research suggests that investing in education can lead to improvements in an entire set of health outcomes. The following policy areas are priorities in translating investments in education into improvements in health.

High quality and sufficient education for all

One of the arguments referenced in this document has been that increasing education access and quality for disadvantaged groups in a society contributes to improving their SES and allows them to acquire capabilities to prevent and mitigate the impact of diseases. Expanding access alone, while a necessary goal, is insufficient by itself given the role of quality in education in defining access to well-paying, safe and satisfying jobs. Fostering retention and completion, improving quality, and enforcing equity are the crucial aspects of an Education for All policy that will have lasting effects on health.

Promoting geographical convergence

Large differences among a country's regions in educational attainment, occupation, and income produce (and reproduce) a deep deficit in social cohesion (UNESCO 1980). This can be a long-term self-reinforcing phenomenon, as wealthier regions usually exert a greater influence on public policy, and social prejudice attributes poorer life conditions in worse-off regions to cultural or ethnic differences (Kunovich & Hodson 2002; Keswell 2005). The differences on life expectancy and health-related quality of life

among regions can be quite striking (Murray, Sandeep, Michaud, Tomijima, Bulzachelli, Landiorio & Ezzati 2006). Equitable investment in education across territories is a good strategy to promote convergence in life expectancy and quality, not just convergence in education per se. Key interventions include monitoring education gaps, devising alternate methods for resource allocation, and deconstructing stereotypes at the classroom level (Martinico 2009).

Bridging gender gaps in education

Considerable evidence connects girls' education with improved family and community health (USAID 2011). Fertility and mortality rates decline and child survival and nutrition improve when girls are educated adequately. Empowering women through education prevents unsafe abortions, early marriages, HIV infections, and other sexually transmitted diseases (Gakidou, Cowling, Lozano & Murray 2010). Returns on investing in girls' education are high. However, gender equity in education is more than just ensuring equal access to school for women, it also involves providing gender sensitive environments that promote equal participation and equal empowerment for girls and boys (Stromquist 2007). For instance, the poor performance of girls in math and sciences does not reflect a biological difference between the sexes, but rather gender biases in social and school contexts affecting access and opportunity (Guiso, Monte, Sapienza & Zingales 2008). Despite these efforts, in some contexts, social conditions and deep-rooted cultural biases may still keep girls out of school. In those cases, intervening on the demand side through measures such as conditional cash transfers, can foster access, improve permanence, and reinforce equity by addressing the least-advantaged populations and providing households with incentives for girls' attendance and completion (De la Brière & Rawlings 2006; Gulemetova-Swan 2009).

Addressing education needs in emergencies

An estimated 20 million children are currently displaced by armed conflicts, many becoming victims of violence, disease, malnutrition, and death (UNICEF 2011). A further 55 million people are affected by climate-related disasters (UNDP 2009). The health implications of conflict and natural disasters range from direct injury, destruction of service and sanitary infrastructure, inability to seek care, destruction of means for a livelihood leading to loss of income and malnutrition, and the mental health consequences of conflict and loss. In crises and post-crisis contexts, education can create an enabling environment for health and healthcare through multiple pathways. Before and during a crisis, education can increase the effectiveness of health interventions by building a literate and cohesive population (OECD/DAC 2008; Burde 2005). It can also reduce the psychosocial impact of conflict on children (Malley & Triplehorn 2005) and develop healthy behaviors. Emergency education services also provide opportunities to address health issues that are specific to refugee camps (Nicolai 2005). Teacher professional development that includes basic diagnostic skills can ensure screening of children with the mental health effects of conflict and natural disaster (Winthrop and Kirk 2005). In the long term, education may affect health by preventing conflict. Individuals with higher education levels may face increased opportunity costs

of engaging in war, and education can reduce and resolve prejudices and the lack of access to wealth that may feed grievances (Dupuy 2008). Education also contributes to the response capacity of health staff, especially as attention moves to post-primary and higher education (OECD/DAC 2008).

Improving school health programs

Tomorrow's local authorities, health officers, businesspeople, heads of households, and parents of students are attending school today. Investments to teach self-care, health promotion, sex education, and to make schools safe environments against bullying, sexual harassment and other threats can pay off several times their cost and reach interested populations, open to fresh, compelling information. As enrollment and retention improve, school-based health programs can reach more children and youth in schools, improving the reach and efficiency of a wide range of health interventions including vaccination, oral hygiene, parasite control, and reproductive health (National Research Council 2008). Beyond ensuring student attendance and attention in class in low and middle income countries, school feeding programs contribute directly to several health objectives—improving food intake, forming healthy eating habits, and reducing hunger at the household and community levels. Finally, the school environment is ideal for screening students for sensorial, learning, and behavioral disabilities that may interfere with their learning and future development (Gottlieb, Maenner, Cappa and Durkin 2009).

Addressing health in Senegal's schools

In Senegal, research by the Ministry of Education revealed that 20 percent of sexual violence reported in local media involved school staff and around 90 percent of violence against schoolgirls occurred either in or around school. USAID-funded Senegal Projet d'Appui l'Enseignement Moyen (Middle School Support Project - PAEM), jointly implemented by FHI 360 and RTI for the Senegal Ministry of Education, developed interventions to prevent violence—especially gender-based violence—in schools. This initiative neatly illustrates the way in which investing in the multiple aspects of education, and in the multiple members of the school community—principals, teachers, students and parents—favors improvements in health.

PAEM developed resources for girls and boys, providing information about their rights in school, illustrating appropriate and inappropriate behaviors and offering concrete ways to deal with sexual harassment and violence. The project also developed training materials and activities for teachers, counselors, and principals, addressing not only legal, moral, cultural, and practical issues of sexual harassment in school, but also presenting means for detection and management of cases. Sensitization activities included radio campaigns and a short film highlighting the issues for school staff and communities.

Beyond making schools safer and fostering students' retention, the simultaneous improvement in school regulations, modeling personal and interpersonal behaviors, and implementing procedures for detection and handling of harassment cases set the stage for diminishing early pregnancies, the spread of HIV/AIDS and STDs, and physical and psychological damage to students (EQUIP2 2008; EQUIP2 2010).

Conclusion

This policy brief collects references and marshals arguments about the relationship between education and health that are well known, but frequently forgotten: education and health cannot and should not be seen as parts of an either/or situation. Both are related as cause and effect of socioeconomic status (SES) and through it, to each other. This means that effects in one depend on investments in the other. Specifically, inequities in health status have shown a tenacious resistance to investments that only focus on health services, instead of the broader socioeconomic issues for which education has great importance (see Phelan, Link & Tehranifar 2010).

Furthermore, the important differences between health interventions, as efforts to conserve or recover well-being, and education interventions, as a means to expand well-being and opportunities, require that investments be tailored specifically to each sector. Breaking the vicious cycle from poor education to low socioeconomic status and inequity, and from there to bad health, requires breaking out of a single-sector mindset and going beyond single-sector investments and the search for "magic bullets". In particular, the long-term, expansive and cumulative nature of education offers a means to protect and make sustainable investments in health.

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For more information about EQUIP2, please contact:

USAID
Patrick Collins
CTO EGAT/ED
USAID Washington
1300 Pennsylvania Ave., NW
Washington, DC 20532
Tel: 202-712-4151
Email: pcollins@usaid.gov

FHI 360
Audrey-marie Schuh Moore
EQUIP2 Project Director
1825 Connecticut Ave., NW
Washington, DC 20009
Tel: 202-884-8187
Email: aumoore@fhi360.org
Web: www.equip123.net

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