Investments in human capital—health and education—foster opportunities for developing a skilled and healthy labor force. Through strengthening health systems to address the full range of child and adult health needs, children can grow into healthy adults who can contribute more significantly to economic growth. Education allows young people to learn skills to take on higher-quality jobs, and these jobs promote economic development. Through these investments, nations develop a labor force well equipped to move into new opportunities that emerge from a demographic dividend.

Human capital is critical to realizing a demographic dividend. Two key areas of investment that lead to a well-prepared labor force include:

- **Strengthening Health Programs and Systems.** Improvements in health programs and systems can foster the development of a population that is healthy and capable of maximizing its contributions to economic growth.
- **Expanding Educational Opportunities.** Improvements in educational opportunities prepare young women and men with the skills they need to move into formal-sector jobs, earn higher wages, and contribute to a demographic dividend.

**Under-5 Mortality by Mother’s Education, Selected Countries**

**Number of Deaths Before Age 5 per 1,000 Live Births**

<table>
<thead>
<tr>
<th>Country</th>
<th>Year</th>
<th>No Education</th>
<th>Primary Education</th>
<th>Secondary or More</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nigeria</td>
<td>2008</td>
<td>209</td>
<td>172</td>
<td>128</td>
</tr>
<tr>
<td>Chad</td>
<td>2010</td>
<td>191</td>
<td>172</td>
<td>125</td>
</tr>
<tr>
<td>Cameroon</td>
<td>2011</td>
<td>175</td>
<td>138</td>
<td>94</td>
</tr>
<tr>
<td>Malawi</td>
<td>2010</td>
<td>209</td>
<td>129</td>
<td>88</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>2011</td>
<td>175</td>
<td>138</td>
<td>94</td>
</tr>
<tr>
<td>Ghana</td>
<td>2008</td>
<td>209</td>
<td>129</td>
<td>88</td>
</tr>
<tr>
<td>Namibia</td>
<td>2006</td>
<td>209</td>
<td>129</td>
<td>88</td>
</tr>
</tbody>
</table>

**Sources:** Demographic and Health Surveys, various years.

Investments in human capital are interrelated and critical to realizing a demographic dividend. This figure illustrates an association between improved education and health—specifically, between mother’s education and child mortality rates. While there may be little difference in child mortality based on mothers having no education and primary education, rates are generally much lower when mothers have secondary or higher education.
GOLD HEALTH FOSTERS ECONOMIC GROWTH

Public health programs help prevent an evolving set of health problems that can undermine a person’s performance in school and on the job. Starting with infants and children, programs that promote good health and prevent disease and infection will help them grow and develop physically and intellectually. Health programs that provide immunizations and prevent and treat many common infections will help children to excel in school. Good nutrition—especially during the first 1,000 days of life—promotes cognitive development among infants and young children and sustains child health, thereby fostering better intellectual capacity. These positive health outcomes ultimately contribute to better educational outcomes and a more-productive and higher-skilled labor force.

As children grow into adolescents, new health needs emerge. Adolescents must have access to reproductive health information and services to avoid unplanned pregnancies and to prevent HIV and sexually transmitted infections—all of which can undermine educational opportunities, especially for girls. Furthermore, health programs for adolescents also need to focus on prevention of smoking, avoidance of drugs and alcohol, sedentary lifestyles, and obesity—all of which can adversely shape the rest of their lives and negatively affect a country’s health care system and its economic development.

Appropriate care during pregnancy and delivery plays a key role in reducing maternal and infant deaths. For young women, family planning can help delay their first pregnancy until an age when they are better prepared for childbearing.

A healthy adult population is also critical to realizing a demographic dividend. Healthy workers are more productive, bringing greater income to families and higher levels of economic growth for nations. Addressing HIV prevention and sustaining treatment among both younger and older adults is vital to improving the health of Africa’s population and the economic well-being of the continent.

While programs that address health issues are critical, health systems must be strengthened to offer the right combination of services, with trained providers and available supplies. Research demonstrates that good health is linked to strong health systems and programs.

EDUCATION PREPARES YOUNG PEOPLE FOR HIGHER-SKILLED JOBS

Educated adults and their children are healthier and their contributions to economic growth are also greater than people with less education. Education for girls—especially at the secondary and higher levels—is a key development strategy because it increases the number of skilled adults who can participate in the labor force. Educated women also have smaller families, a contributing factor for a demographic dividend.

Primary education completion rates in sub-Saharan Africa are improving; current estimates show that 93 percent of girls and 71 percent of boys complete primary school. However, these completion rates are not uniform across the continent. Only 47 percent of girls and 64 percent of boys complete primary school in Central Africa, compared to 86 percent and 85 percent, respectively, in Southern Africa. While primary school is important, the skills acquired through secondary and higher education lead to higher-paying jobs that accompany the demographic dividend. Research indicates that each additional year of primary school that a girl completes boosts her wages later in life by 10 percent to 20 percent. Returns on secondary school are even higher: Each additional year of secondary school increases her earnings by 15 percent to 25 percent.

As boys and girls progress through school, the skills they learn become increasingly complex. Literacy and numeracy in early primary school are critical to virtually all types of work today. Yet skills acquired through secondary and higher education—the ability to gather information, understand social systems, and develop financial literacy—are vital to creating and filling higher-paying jobs. The dramatic variation in secondary school enrollment ratios suggests uneven opportunities for realizing a demographic dividend throughout all of Africa. In Western Africa, only 25 percent of girls and 40 percent of boys are enrolled in secondary school, compared to 92 percent and 88 percent, respectively, in Southern Africa. With such variations across regions and between boys and girls, some regions will lag significantly in achieving a demographic dividend without investing more in education.

Links between education and economic development are well established. Women who are educated are also more likely to work outside the home. Although 17 percent of women in sub-Saharan Africa earn wages and salaries, far more participate in the informal sector, and the skills and experience acquired through secondary education could position them to take on higher-paying jobs in the formal sector or have better chances of securing financial support for informal-sector businesses.

INVESTING IN HUMAN CAPITAL

Across Africa, the levels of investment in human capital vary significantly by region. Northern and Southern Africa have made the greatest investments in human capital, as reflected by high educational achievement and low levels of infant and child mortality. Indicators of human capital in Central Africa are lagging, and suggest the need for greater investments in health and education. Western and Eastern Africa show some progress in human capital, but with significant room for improving health and educational outcomes.

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