POLICY BRIEF

Stepping up Investments in Human Capital Development to unleash Rwanda's Demographic Dividend

October 2017

KEY MESSAGES

- Human capital development is a key priority for achieving Rwanda's socioeconomic transformation agenda envisioned in Vision 2020.
- To ensure a well-educated and skilled workforce, Rwanda should:
  1. Retrain all teachers, provide teaching materials and reduce student-teacher ratios to ensure effective implementation of the new competency-based curriculum.
  2. Increase access and quality of learning at early childhood education, secondary and tertiary levels and for out-of-school youth TVET, closing all gender and other inequities.
- Improvement in health should focus on strengthening the capacity of the health system to prevent, diagnose and treat communicable and non-communicable diseases, address child malnutrition and ensure sustainable health care financing.

CONTEXT

A healthy, well educated, and skilled labour force is vital to propel Rwanda to a developed, services and knowledge-based society envisioned in Vision 2020. Rwanda has achieved almost universal enrolment in primary schools and although less than a third of secondary school aged children are in school, the country has achieved gender parity at both levels[1]. Access to TVET and tertiary education is limited and skewed towards men and there are concerns about quality and relevance of education that the government is striving to address.

Similarly, while progress has been made in improving child and maternal health, the workforce continues to suffer from an increasing burden of non-communicable diseases (NCDs) and high levels of childhood malnutrition, which has adverse effects on learning outcomes and productivity later in life.

Rwanda's high fertility and the consequent high child dependency burden undermine the capacity of families and governments to provide quality education and health services. However, if the country accelerates fertility decline, its age structure will change to one dominated by working age adults relative to dependent children and this will open a temporary window of opportunity for accelerated economic growth referred to as the demographic dividend (DD)[2]. The magnitude of the DD can be augmented if concurrent investments are made to ensure that the labour force is well educated, healthy, skilled and gainfully employed.

This policy brief highlights policy and programme options that Rwanda can adopt to enhance human capital development to optimise its chances of harnessing the demographic dividend. It is derived from the Rwanda DD study, which showed that the age structure that would result from a decline in birth rates from the current level of 4.2 births per woman to 2.3 births by 2050 would propel the country to graduate to middle income status with per capita GDP of US$ 4,014 by 2035 and to a high income status with per capita GDP of US$ 12,555 by 2050.

EDUCATION STATUS AND CHALLENGES

Access and gender inequalities

Despite matching enrolment in primary schools with other emerging economies, Rwanda lags behind at the secondary school level (Figure 1). Rwanda also falls short of its targets in Early Childhood Education that is key for cognitive development, with only 17.5% of children

[1] Ministry of Education. (2016). 2016 Education Statistics Yearbook. Ministry of Education, Republic of Rwanda. Kigali, Rwanda

[2] Bloom, D.E., Canning, D., and Sevilla, J. (2004). The Effect of Health on Economic Growth: A Production Function Approach. World Development Vol.32, No.1, pp.1 – 13.

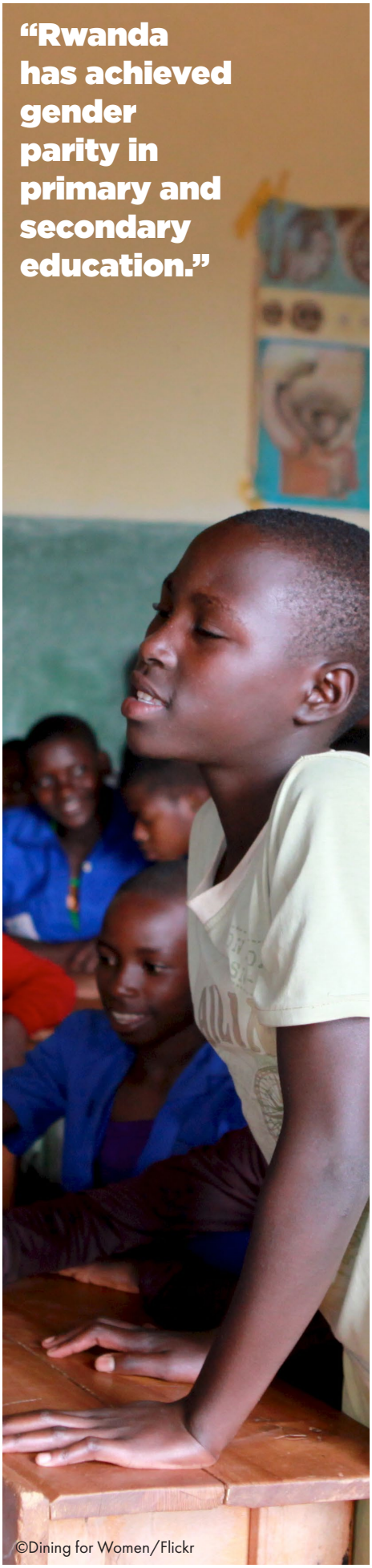
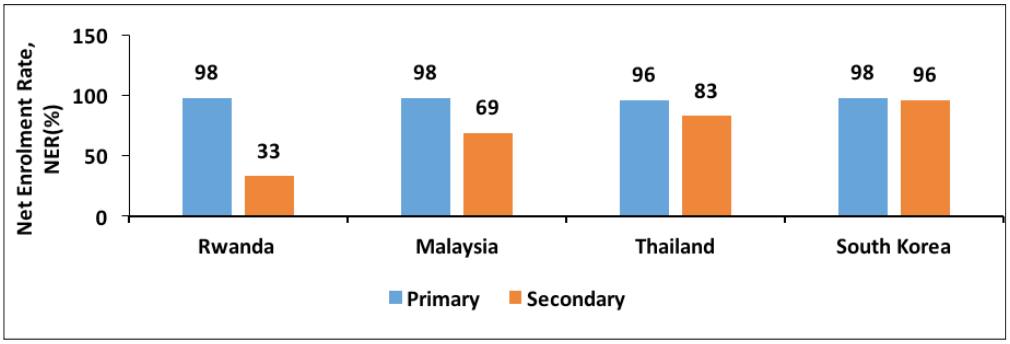


Figure 1: School Net Enrolment Rates in Rwanda Compared to Select East Asian Countries



Source: Ministry of Education, 2016; UNESCO UIS, 2016

aged 3-6 years attending pre-school.[3] Enrolment in tertiary and TVET level, which are key for building high-level skills to maximise productivity, is even lower, with a gross enrolment ratio of 7.96% in 2016.[4] Rwanda has achieved gender parity in primary and secondary education but girls fall behind in access and achievement at tertiary and TVET levels, where girls constitute 43.4% and 37.8% of all enrolled students, respectively.[5]

Quality of education and skills mismatch

The quality of education is compromised at all levels of the education pipeline due to insufficient teachers, classrooms and teaching materials. In 2014, the primary pupil teacher ratio was 58, compared to 12 in Malaysia and 19 in South Korea while the secondary school pupil-teacher ratio was 28 in 2016 compared to 12 in Malaysia and 19 in South Korea.[6] There are concerns about the low level of skills of university graduates and it is estimated that Rwanda has a 40% skills gap in all sectors.[7]

The rollout of the competency-based curriculum for all junior and senior secondary schools in 2016 marked a major turning point in efforts to improve the quality and relevance of education for the 21 st century labour market where transferable or work-readiness skills matters as much as technical skills. However, the programme is saddled with serious implementation challenges that should be addressed to ensure effective learner–centred teaching.[8] Similar efforts should be made to improve the quality of TVET for out-of-school youth and tertiary education in order to improve the skill base of the labour force.

LABOUR FORCE HEALTH STATUS AND CHALLENGES

Access to health care

Having a healthy workforce is critical for economic productivity; evidence shows that a one-year increase in life expectancy at birth could raise GDP by up to 4%.[9] Rwanda has made very significant improvements in the health status of its population resulting in an increase in life expectancy at birth from 53.7 years in 1991 to 64.5 years in 2012.[10] The under-five mortality rate declined from 152 to 50 deaths per 1,000 live births between 2005 and 2015 while the maternal mortality ratio declined from 1071 to 210 deaths per 100,000 live births between 2000 and 2015. There has also been an impressive drop in HIV prevalence (from 13% in 2000 to 3% in 2010-2015) and almost all pregnant women have access to treatment for prevention of mother-to-child transmission of HIV.

These achievements have resulted from concerted efforts to improve access to health services through community-based services, community based insurance, performance based financing, integration of maternal and child health services and improved data collection and utilisation in decision-making. Further efforts should focus on addressing three persisting and emerging health challenges: health system deficiencies, child malnutrition and non-communicable diseases.

Health System challenges

Access to health care in Rwanda is high, and about 75% of the population in Rwanda live within 5kms to the nearest health facility. However, the country suffers from a severe

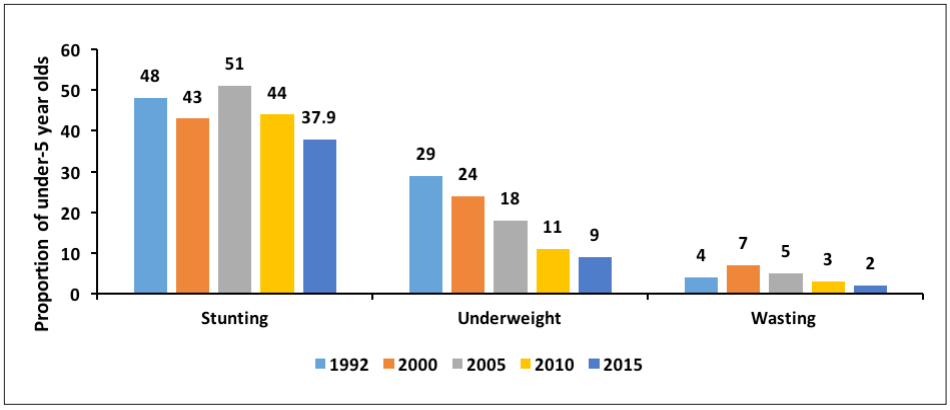
[3] Ministry of Education. (2016). 2016 Education Statistics Yearbook. Ministry of Education, Republic of Rwanda. Kigali, Rwanda
[4] Oketch, M., McCowan, T., & Schendel, R. (2014). The Impact of Tertiary Education on Development: A Rigorous Literature Review.
[5] Ministry of Education. (2015). 2015 Education Statistical Yearbook. Ministry of Education, Republic of Rwanda. Kigali, Rwanda.
[6] World Bank. (2016). 2016 World Development Indicators. from World Bank
[7] African Development Bank, 2013. Rwanda Transport Sector Review and Action Plan. Tunis, Tunisia.
[8] Mastercard Foundation. (2017). Skills at Scale: Transferable Skills in Secondary and Vocational Education in Africa.
[9] Bloom, D.E., Canning, D., and Sevilla, J. (2004). The Effect of Health on Economic Growth: A Production Function Approach. World Development Vol.32, No.1, pp.1 – 13.
[10] National Institute of Statistics of Rwanda, & Ministry of Finance and Economic Planning. (2012). Fourth Rwanda Population and Housing Census. Thematic Report: Population Projections. Kigali, Rwanda.

shortage of qualified medical staff, with only 0.6 physicians per 10,000 people in 2013, compared to the recommended minimum of 2.5 health providers per 10,000 people.[11] In addition, majority of specialised care providers are in urban areas, and there is also a shortage of diagnostic medical equipment and maintenance technicians. The health sector's over-dependence on donor funding (estimated by WHO at 70%) presents a critical sustainability challenge.

Child Malnutrition

Malnutrition has been a longstanding impediment to child health and development of a world-class labour force. Although some progress has been made to address this challenge, it is a major concern that 37.8% of under-five children are stunted (Figure 2). According to the Cost of Hunger Study, Rwanda could have lost an equivalent to 11.5% of its GDP in 2012 due to the immediate and long-term effects of child under nutrition.[12]

Figure 2: Trends in Malnutrition among Children below 5 Years of age, Rwanda, 1992 - 2015



Source: NISR, Demographic and Health Survey 2005; 2015

Non-communicable diseases

Rwanda is witnessing an increasing prevalence of NCDs and it is estimated that in 2013 NCDs accounted for at least 51.9% of all outpatient consultations and 22.3% of all admissions at district hospitals and the WHO data estimate that Rwanda had an NCD death rate of 607 deaths per 100,000 people in 2015.[13] The common NCDs in Rwanda include cancers, cardiovascular diseases, chronic respiratory diseases, diabetes, and kidney diseases. Yet, the health system has limited capacity to diagnose and treat NCDs.

KEY POLICY OPTIONS TO IMPROVE EDUCATION AND SKILLS DEVELOPMENT

- Ensure all in-service teachers are trained in learner-centred pedagogies to facilitate effective implementation of the competency based curriculum for general and TVET secondary schools that was rolled out in 2016. Teacher training institutions should urgently align their training with the needs of the new curriculum.
- Allocate more finances to enable hiring of more teachers, construction of more classrooms, and provision of learning materials to reduce the high student-teacher ratios and ensure effective delivery of learner-centred education and increased access to secondary schools. Efforts should address education quality and affordability challenges that lead to high repetition and dropout rates, especially in rural areas.
- Enhance governance and performance monitoring measures including the school inspection functions and use of ICT to improve evidence-informed decision making
- Strengthen the school feeding programme that has increased enrolment and retention of children from poor families

[11] Ministry of Health. (2014). National Human Resources for Health Policy Government of Rwanda. Kigali, Rwanda
[12] UNECA, & WFP. (2014). The Cost of Hunger In Rwanda. Social and Economic Impacts of Child Undernutrition in Rwanda: Implications on National Development and Vision 2020. Kigali, Rwanda.
[13] WHO, 2017

- Improve infrastructure to ensure universal enrolment in early childhood education, which provides vital foundation for effective learning at later stages of the education pipeline.
- Commit to massive investment in TVET for out-of-school youth, including constructing more TVET centres and rebranding the programme to be market-oriented, lucrative and attractive to young people and the society at large.
- Improve access to and quality of tertiary education institutions, paying particular attention to development of advanced practical skills surrounding innovation, science and technology, and leadership as a backbone for building a globally competitive labour force.
- Do regular engagement with the private sector in development and implementation of education curriculum to match education with the dynamic skill needs of the labour market

POLICY OPTIONS FOR DEVELOPING A HEALTHY WORKFORCE

- Conduct regular recruitment and training of community health workers to replace those leaving the programme. This should include improved management of the health workers' cooperatives and other livelihood opportunities.
- Enhance health education to sensitise Rwandan people on prevention of emerging non-communicable diseases and strengthen the capacity of the health care system to manage these diseases, as articulated in the NCD policy.
- Reinforce implementation of the multi-sectoral nutrition action plan, food supplementation using fortified food, and the One cow per poor family programme to improve nutritional status of children.
- Fully implement the health human resource policy and operationalize the comprehensive human resource information system to address the health workforce shortage, particularly for specialised care. This should ensure adequate number of personnel are recruited, trained, equitably deployed and incentivised.
- Operationalize the health financing strategy to ensure sustainable funding of the health sector in the light of possible decline in donor support, including enhancing management and coverage of the Community-Based Health Insurance scheme, performance-based financing, and fiscal decentralization. Introduction of self-financing and health tariffs should not compromise access to health services among poor households.
- Reinforce public-private partnerships in health care delivery and financing and develop accountability mechanisms that leverage synergies.

Acknowledgements

This Policy Brief is derived from the report of the Rwanda Demographic Dividend study, which was commissioned by the Ministry of Finance and Economic Planning (MINECOFIN) and made possible with financial support from UNFPA East and Southern Africa Regional Office (ESARO) and UNFPA Rwanda Country Office. The National Institute of Statistics of Rwanda (NISR), the African Institute for Development Policy (AFIDEP) and UNFPA led the Core Technical Team that developed the study report.