Guatemala Population Dynamics: 2015–2055

Overview

Population dynamics lay at the heart of some of the most salient development topics in Guatemala, including health, education, economic growth, and security. While Guatemala has a detailed vision for addressing its challenges outlined in its development plan, Plan K'atun, resources are limited.

The Health and Education Policy Plus (HEP+), a project funded by the U.S. Agency for International Development, conducted a study to examine:

- Whether and how achieving certain goals within *Plan K'atun* (Box 1) could affect various sectors and outcomes—specifically those related to health, education, economic growth, and security
- The interconnections between these sectors and topics
- The population trends common among them

Understanding the interaction between population dynamics and human capital investments can inform how Guatemala prioritizes its development resources.

The study examined eight population groups: the national population, five departments

Box 1. Plan K'atun Goals

- **Reproductive Health:** Universal access to contraceptives through an increase in coverage of health services, guaranteeing the availability of each service
- **Education:** In the year 2030, the school-age population (0 to 18 years) has successfully completed each of the age-appropriate educational levels

(Huehuetenango, Quetzaltenango, Quiche, San Marcos, and Totonicapán), and two ethnicities (indigenous and non-indigenous). HEP+ analyzed four scenarios: base (i.e., business-as-usual); meeting only family planning goals; meeting only educational goals; and meeting both family planning and educational goals (see Table 1). HEP+ carried out the analysis using a variety of data sources and tools, including DemProj, DemDiv, and RAPID.
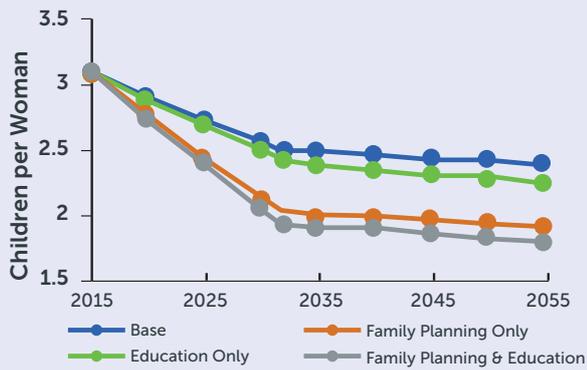
Table 1. Study Scenarios

Scenarios	Reduction of Unmet Need by 2032	Full Graduation (Grades 1–12) by
Base	50%	2055
Family Planning Only	100%	2055
Education Only	50%	2032
Family Planning & Education	100%	2032

Results

The results show that achieving Plan K'atun's family planning and educational goals can have significant long-term socioeconomic and security benefits for Guatemala. Achieving the family planning goals have far-reaching demographic impacts, from decreasing the total fertility rate and slowing population growth to transitioning the population's age structure. Compared to the base scenario, the family planning + education scenario decreased total fertility by an additional 0.59 points by 2055 (see Figure 1).
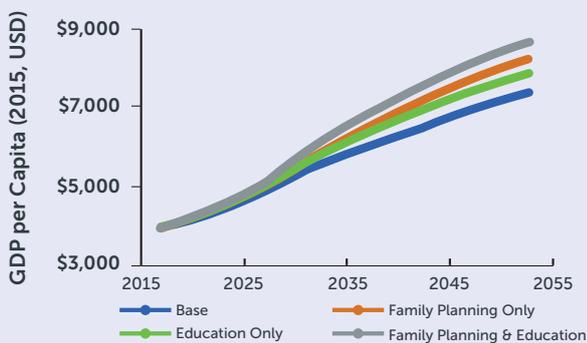
Increasing female education also contributes to these demographic changes by delaying the age of marriage and, indirectly, decreasing fertility. This study

Figure 1. Total Fertility Rate by Scenario

Source: HP+ analysis

Figure 2. GDP per Capita

Source: HP+ analysis

The effects of both family planning and educational achievements can be seen in the demographic dividend: a one-time economic opportunity to capitalize on advantageous demographics with a relatively large and well-educated working population. Declines in fertility produce this opportunity and amplify it, as per capita gross domestic product is higher when the total population size is smaller. A more educated adult population is better able to take advantage of this demographic opportunity because it is more productive. Taken together, the economic impacts of achieving family planning and educational goals can be summarized by the possible future trajectories of gross domestic product per capita (see Figure 2).

Conclusion

Achieving the family planning and educational goals of *Plan K'atun* would have long-term impacts on Guatemala's development and security. Both are complimentary, multi-generational strategies. Family planning reduces future resource strains and increases future GDP per capita through its impact on age structure. Female education lowers fertility and educational investment in children today pays off as stronger economies in the future. Moreover, the resulting maturity of the populations' age structure could help Guatemala further grow the economy by producing a demographic dividend. Finally, including groups that have lagged in social indicators, such as rural populations and indigenous populations, could help reduce inequities and increase social cohesion.

An in-depth report with further methodological details and more results, including for sub-national populations, can be found at http://www.healthpolicyplus.com/pubs.cfm?get=8222.

estimated education investments alone would decrease the total fertility rate to 2.24 by 2055.

The impacts of education and family planning investments on population age, size, and structure put less stress on future public resources in sectors such as health, education, and urbanization—stressors that traditionally challenge both economic growth and security. Achieving the educational goals gradually increases the education level of the working-age population, which in turn has both economic and demographic implications by increasing productivity and the age at which people marry.