The Emerging Markets Symposium

Health Issues in Emerging Market Countries: December 2009

Global Health Data Report

Prepared by: Lena Mass
University of Oxford
Saïd Business School
Green Templeton College

Table of Contents

Introduction

Current resources available for health are higher than ever before. The global health economy is growing faster than gross domestic product (GDP), having increased its share from 8.0% to 8.6% of the world's GDP between 2000 and 2005. In absolute terms, adjusted for inflation, this represents a 35% growth in the world's expenditure on health over a five-year period. Understanding and knowledge intensity of health are growing rapidly. As a result of the accelerated technological revolution, the potential for improving health and transforming health literacy in a better-educated and modernizing global society is proliferating. A global stewardship is emerging: from intensified exchanges between countries, often in recognition of shared threats, challenges or opportunities; from growing solidarity; and from the global commitment to eliminate poverty exemplified in the Millennium Development Goals.[1]

Good health promotes economic growth and social stability, while reducing poverty and income inequality. It has been suggested that much of the burden of poor health in countries and between countries rests with overall health system inefficiency, inadequate funding and inequitable access to health care services. Although many emerging economies would like to expand investment in their national health care systems to take full advantage of the relationship between health and productivity, growing evidence indicates that a fundamental restructuring will also be necessary to improve their systems' performance in order for these economic and social benefits to be realized.

The following Global Health Data Report focuses on the current status of health systems in emerging market countries (EMCs) and provides benchmarking comparisons to wealthier and poorer countries. Individual EMCs are compared to a cluster of high income OECD countries as well as low income countries; extracted from relevant World Bank aggregate lists. Target countries are identified in Table 1.

Table 1. Country lists

Emerging Market Countries
Argentina, Brazil, China, Chile, Colombia, Egypt, India, Indonesia, Jordan, Malaysia, Mexico, Pakistan, Peru, Philippines, Poland, Russia, South Africa, Thailand, Turkey, Tunisia
High income OECD member aggregate
Australia, Japan, Switzerland, United Kingdom, United States
Low income aggregate
Bangladesh, Cambodia, Ethiopia, Haiti, Nigeria

The countries comprising each aggregate group were selected for representativeness of global geographic variability to provide a comprehensive sample within each comparator group. The Report's graphical data summaries provide Symposium attendees the opportunity to compare and contrast relevant macroeconomic, health system, pharmaceutical and technology data across nations; prompting discussions that will bring to bear interdisciplinary expertise around targeted healthcare issues.

Sources

Methodologically, a diverse set of information sources were drawn upon for Report research. To ensure consistency and comparability across the reported data, a select number of primary sources were used: World Bank Development Indicators 2009, World Health Organization (WHO) World Health Statistics 2009, WHO Regional Offices and Country Pages, and Business Monitor International 2009 quarterly reports. These data were also triangulated with other sources, including data published by: OECD, UN, Ministries of Health, Henry J. Kaiser Family Foundation, The Bill and Melinda Gates Foundation, Médecins Sans Frontières, IMF, Harvard Global Health Initiative, and Datamonitor.

Macroeconomic Indicators

The following section depicts high-level macroeconomic indicators; benchmarking EMCs' variability and trends across population growth, migration, GDP, and development assistance & aid among other variables, against comparator groups. Macroeconomic trends are exhibited over a five-year period where data availability permits. The most recently published values are labelled in each case.

Figure 1. Population, Total (in Millions)

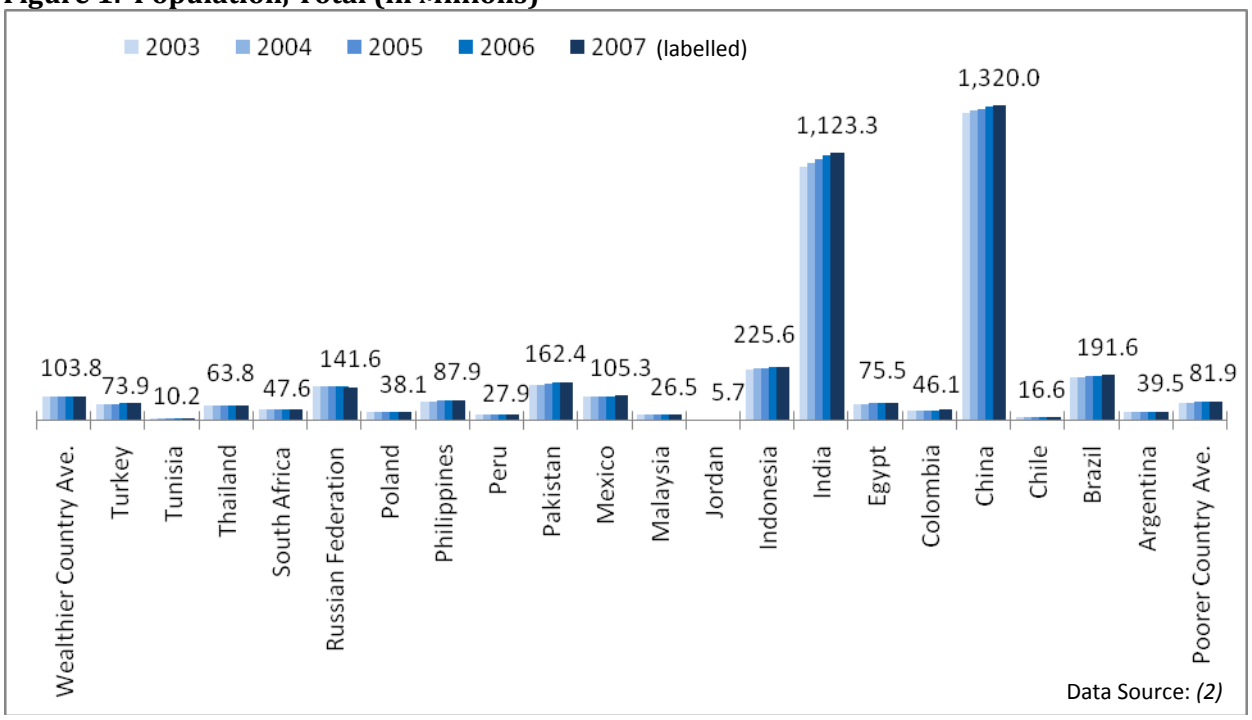


Figure 2. Urban vs. Rural Population (2007)

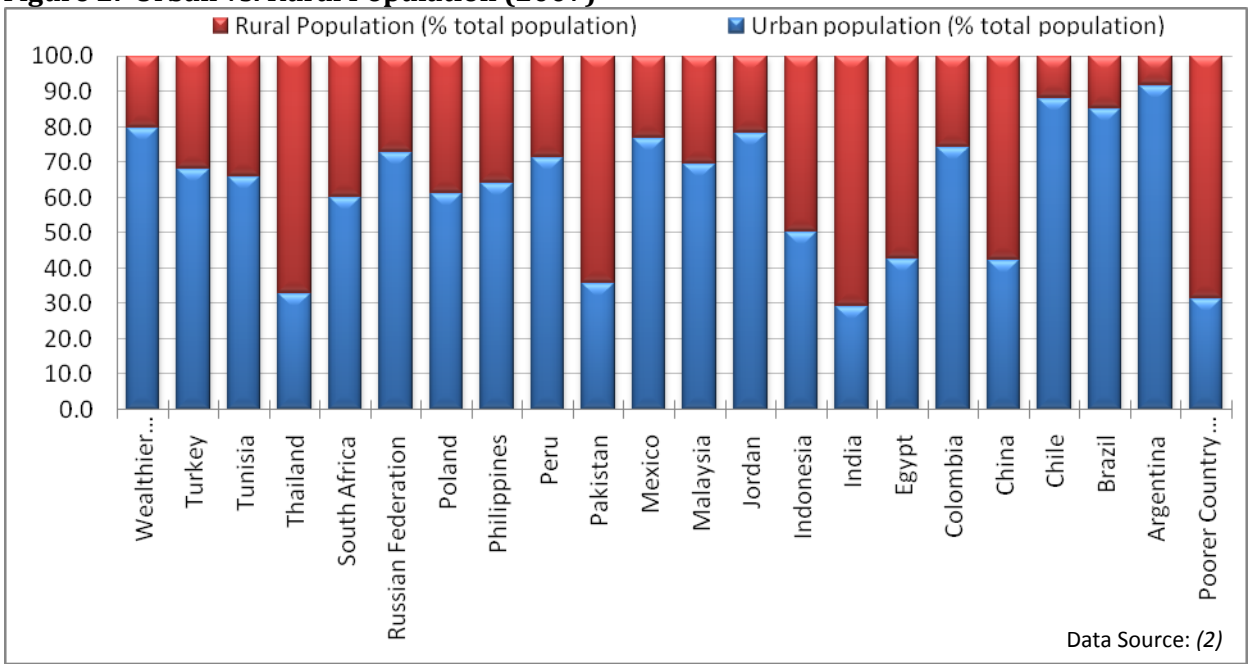
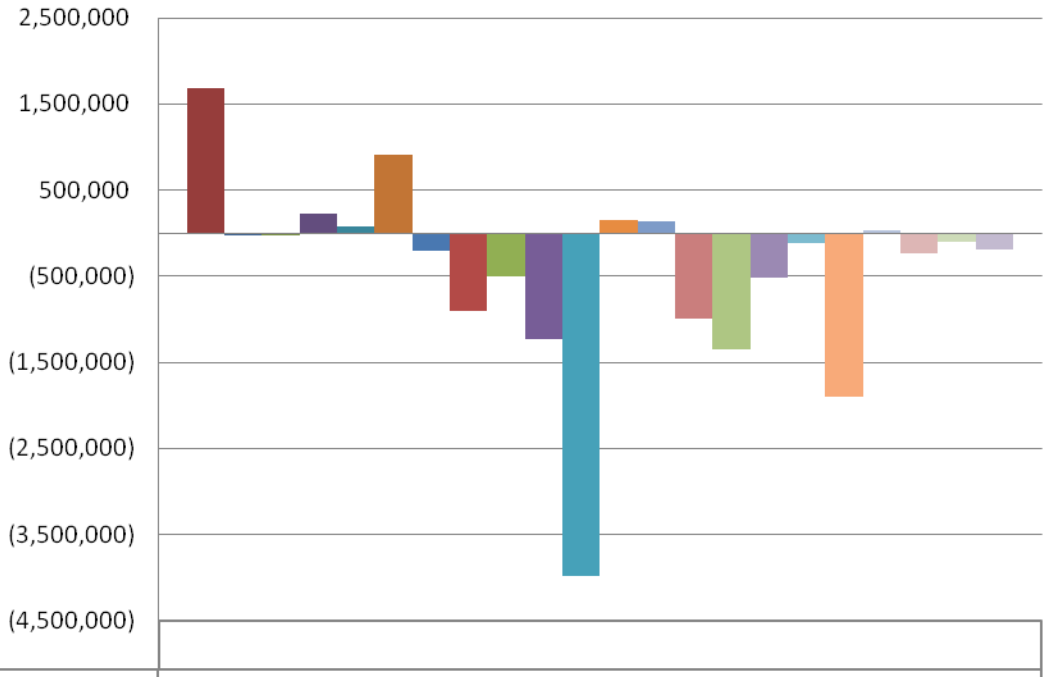


Figure 3. Net Migration (2005)



Wealthier Country Ave.	1,680,714
Turkey	(30,000)
Tunisia	(29,000)
Thailand	231,348
South Africa	75,000
Russian Federation	916,730
Poland	(200,000)
Philippines	(900,000)
Peru	(510,000)
Pakistan	(1,239,421)
Mexico	(3,982,600)
Malaysia	150,000
Jordan	130,000
Indonesia	(1,000,000)
India	(1,350,000)
Egypt	(525,000)
Colombia	(120,000)
China	(1,900,000)
Chile	30,000
Brazil	(229,000)
Argentina	(100,000)
Poorer Country Ave.	(188,166)

Data Source: *(2)*

Figure 4. GDP (Current US$ Billions)

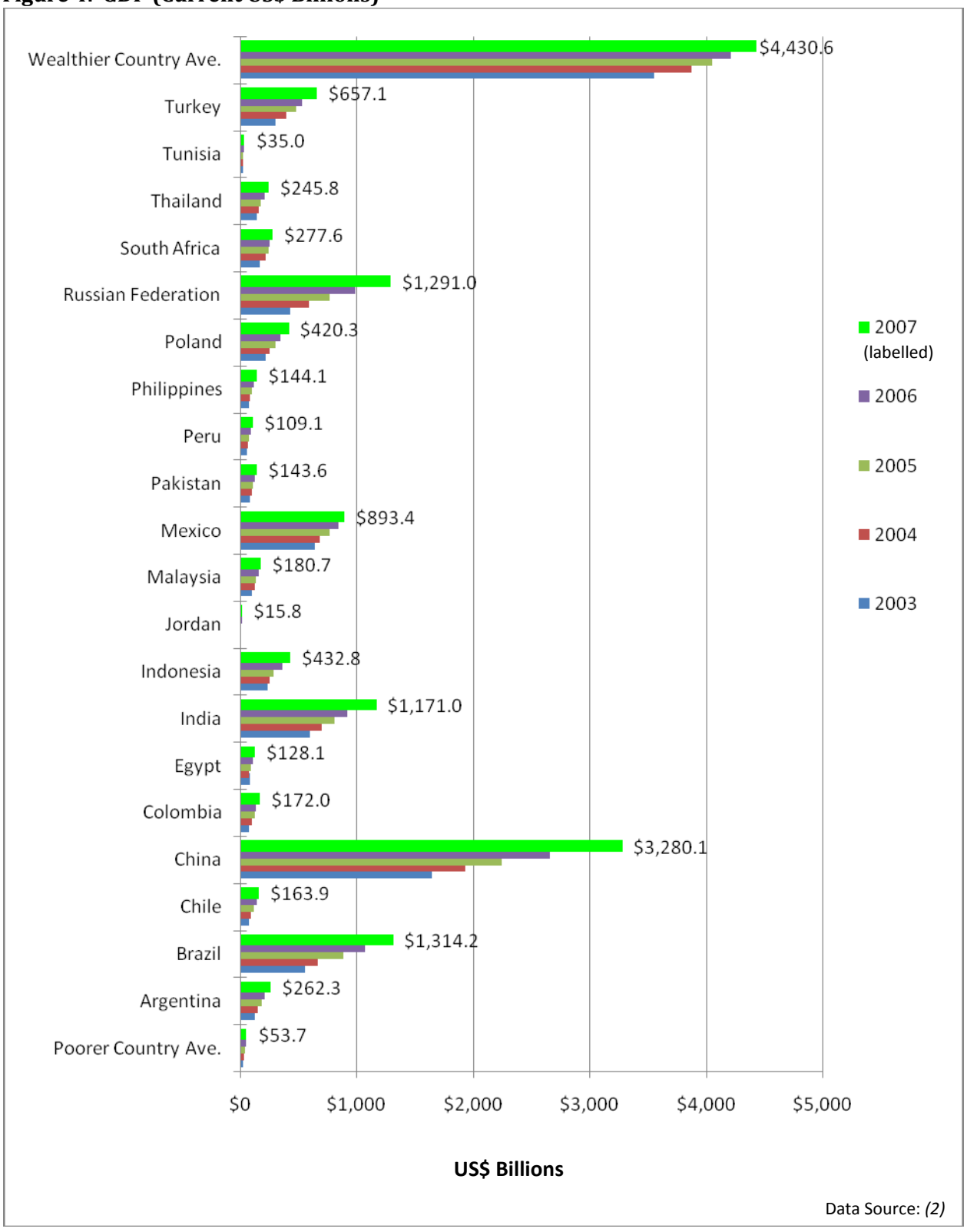


Figure 5. GDP Growth (Annual %)

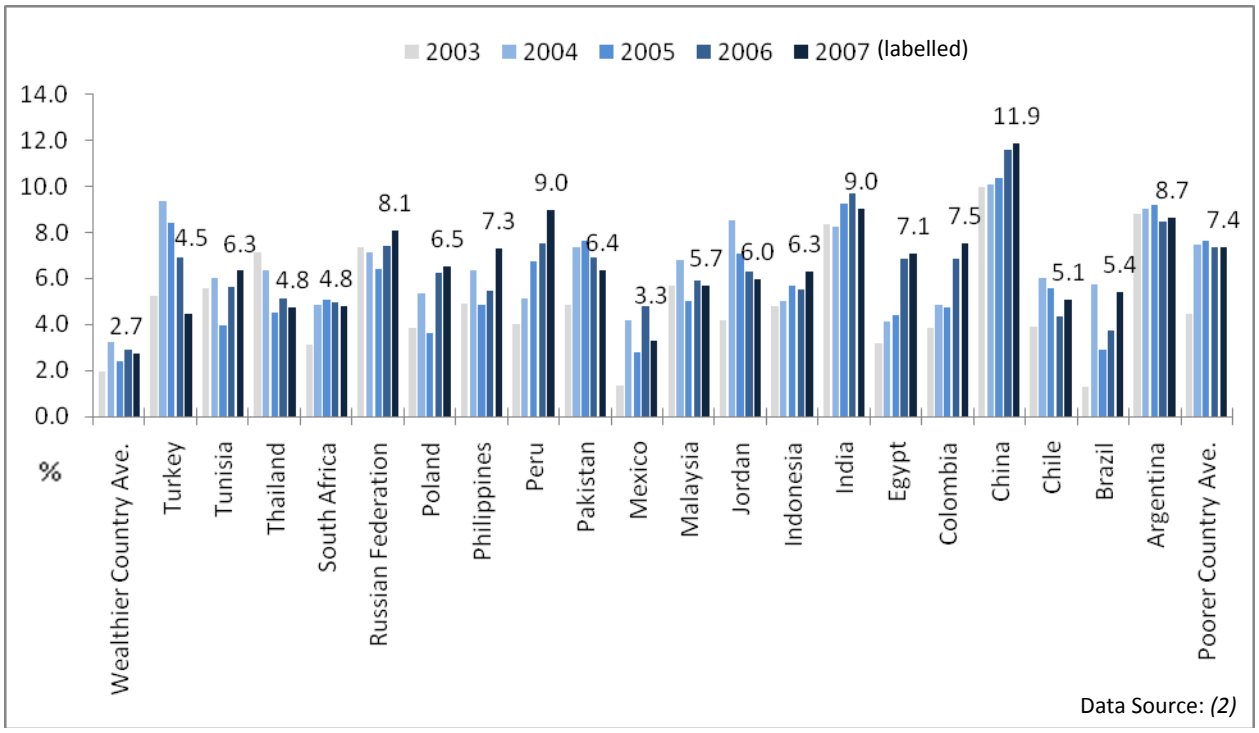


Figure 6. GDP Per Capita (Current US$)

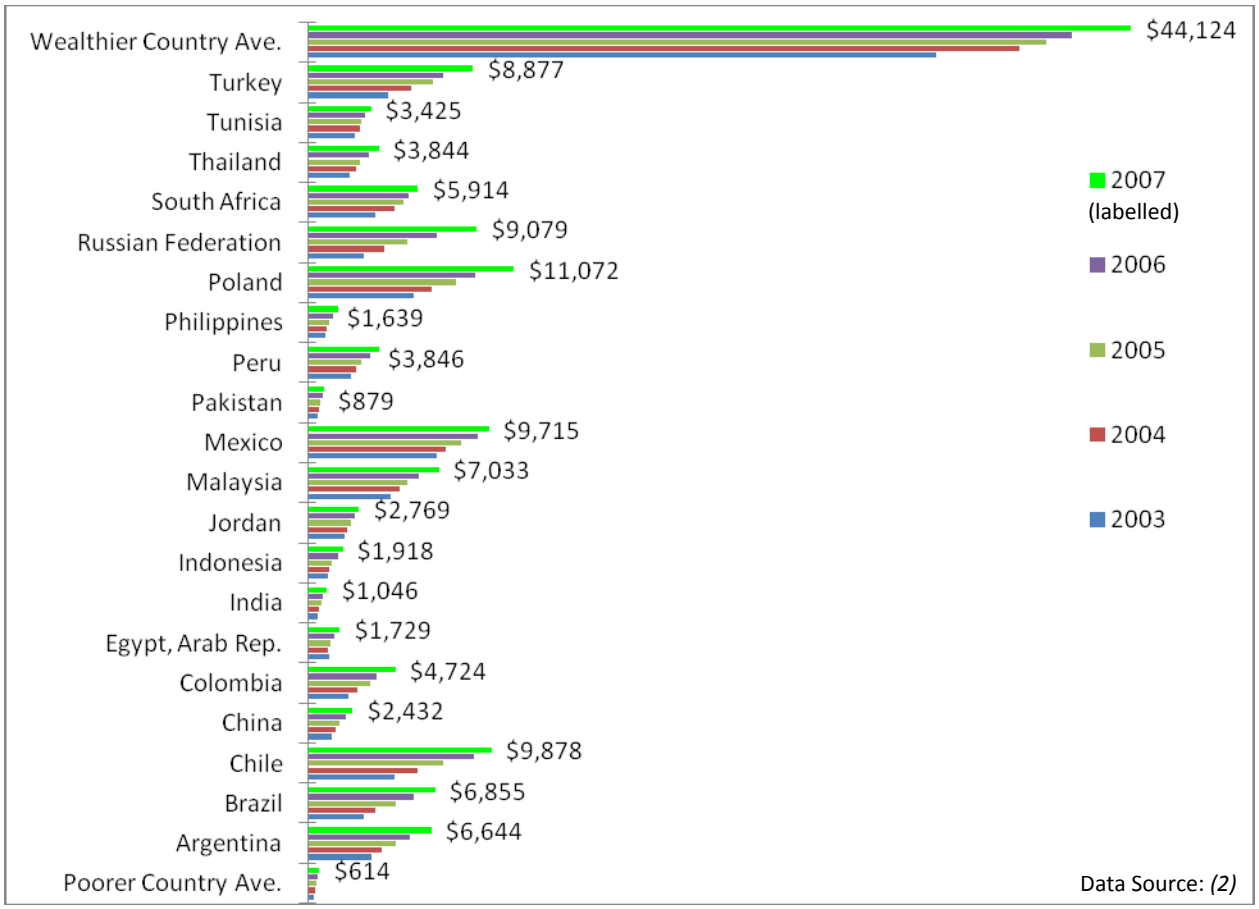


Figure 7. Trade (% of GDP)

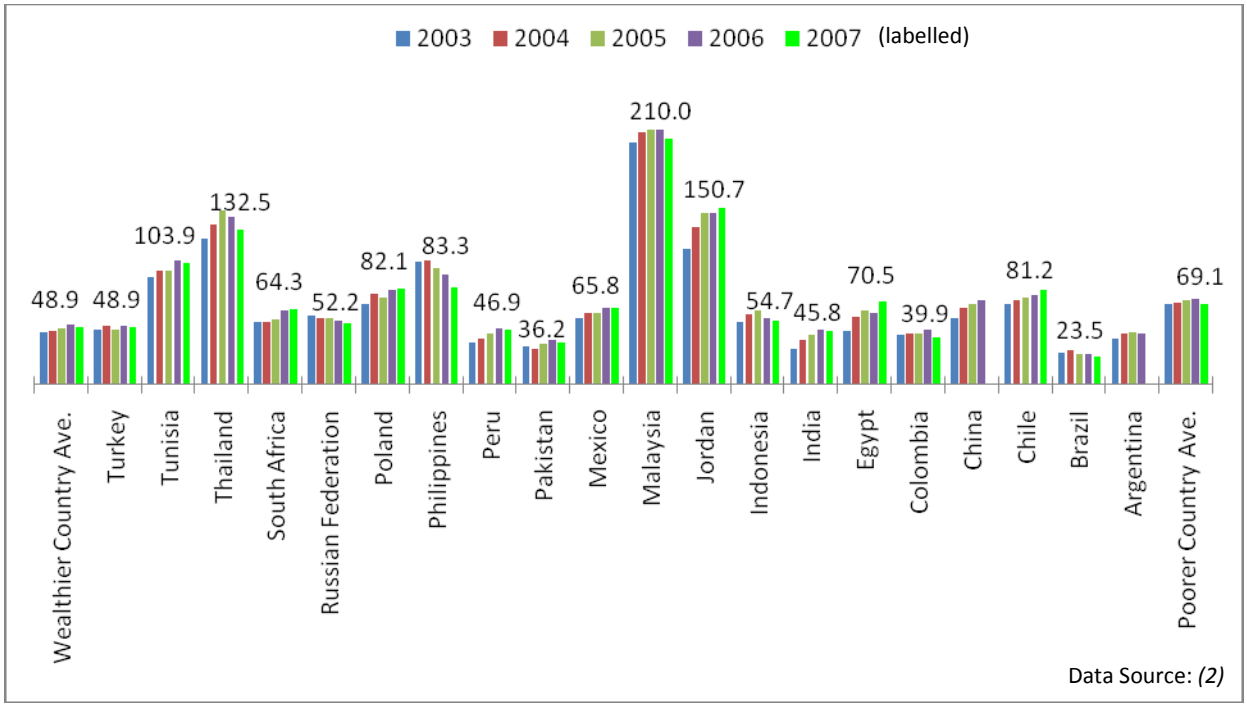


Figure 8. Public Spending on Education (% of GDP)

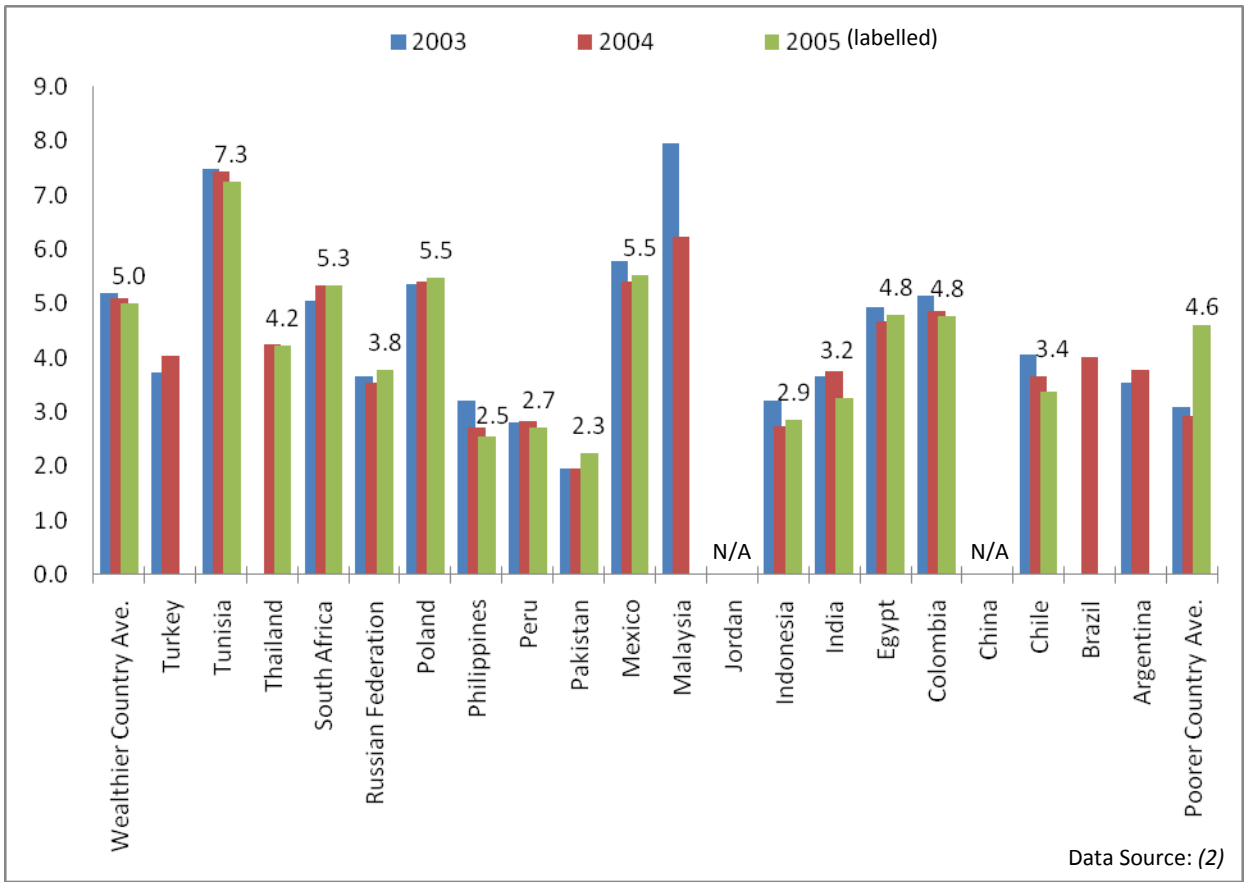


Figure 9. Foreign Direct Investment, Net (Current US$ Billions)

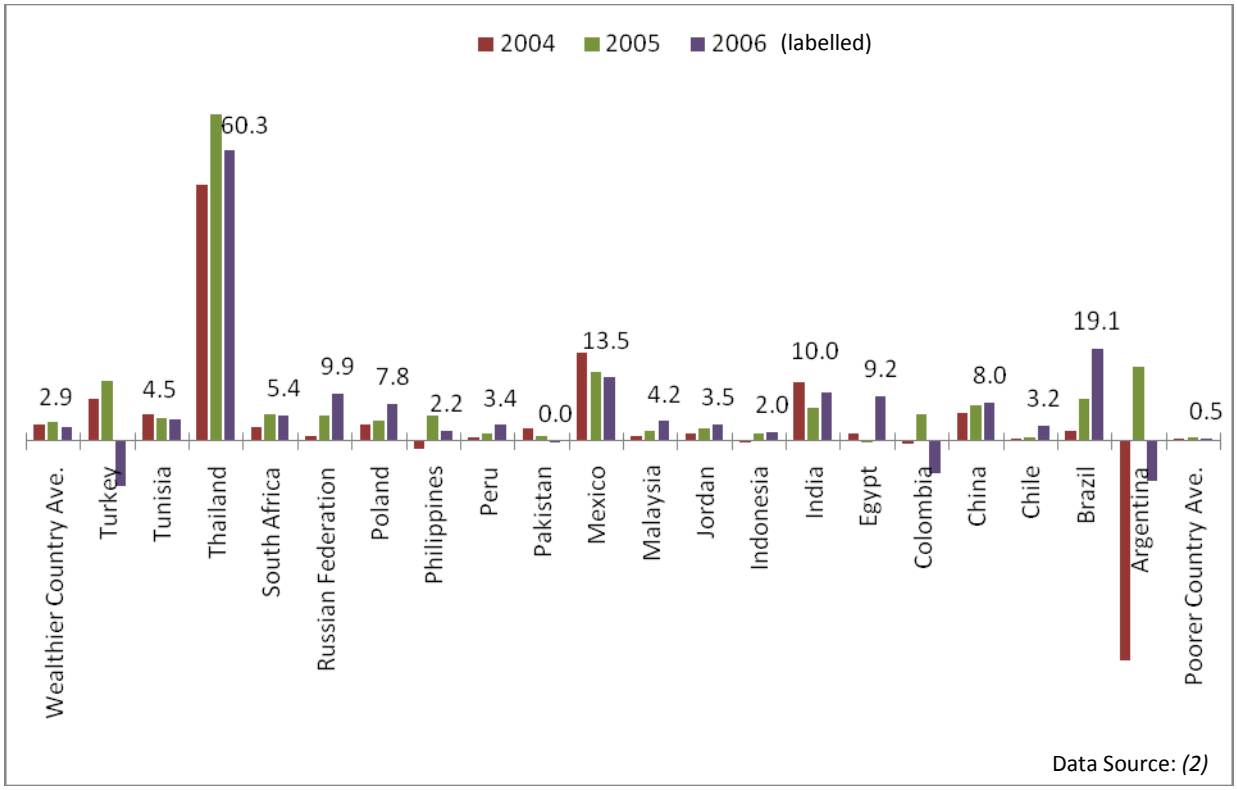
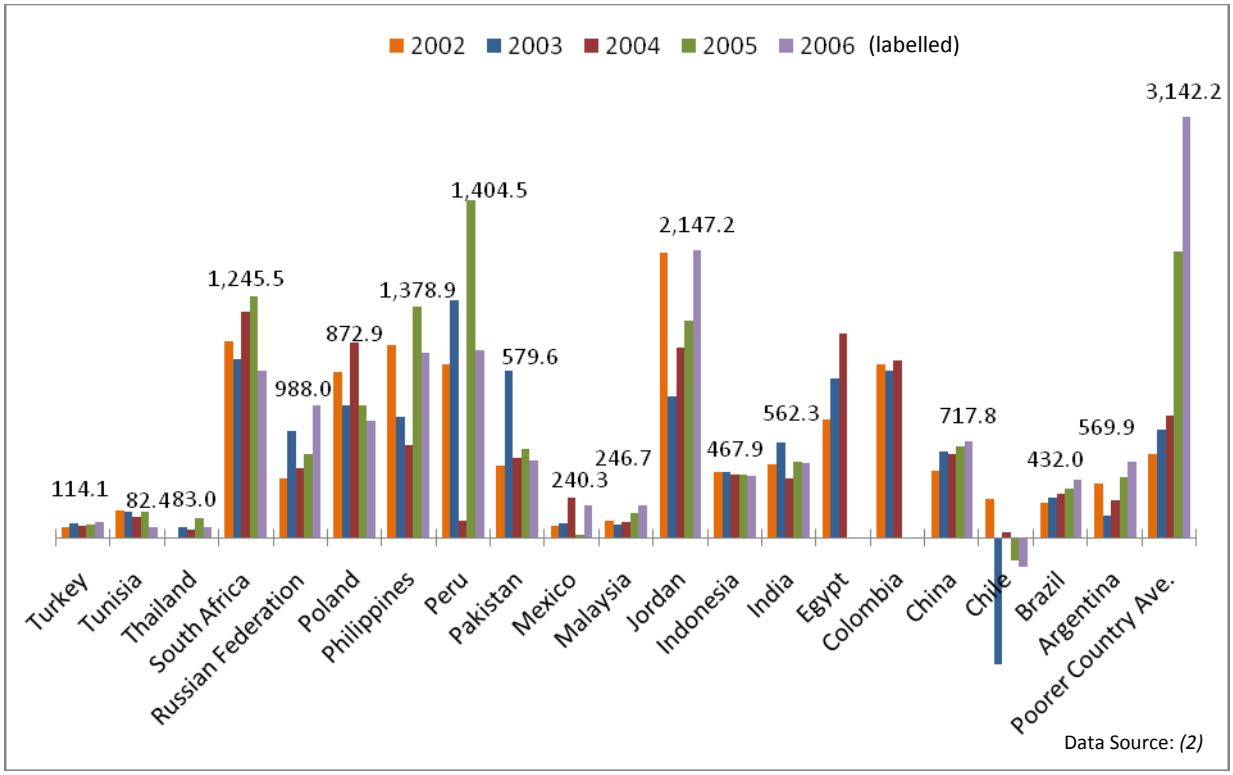


Figure 10. Official Development Assistance and Official Aid (Current US$ Millions)



Health Expenditures

The section on Health Expenditures highlights health system financial resources as allocated by country governments and provided by external sources. The distinction between public vs. private expenditures demonstrate substantial and increasing reliance on the private sector – along with related out-of-pocket health expenses – across EMCs. Concerns over private sector regulation & governance, costs and quality dominate. Trends reflect the most recently published WHO data, and 2007 expenditure data are provisional estimates.

Figure 11. Total Expenditure on Health as Percentage of GDP (%)

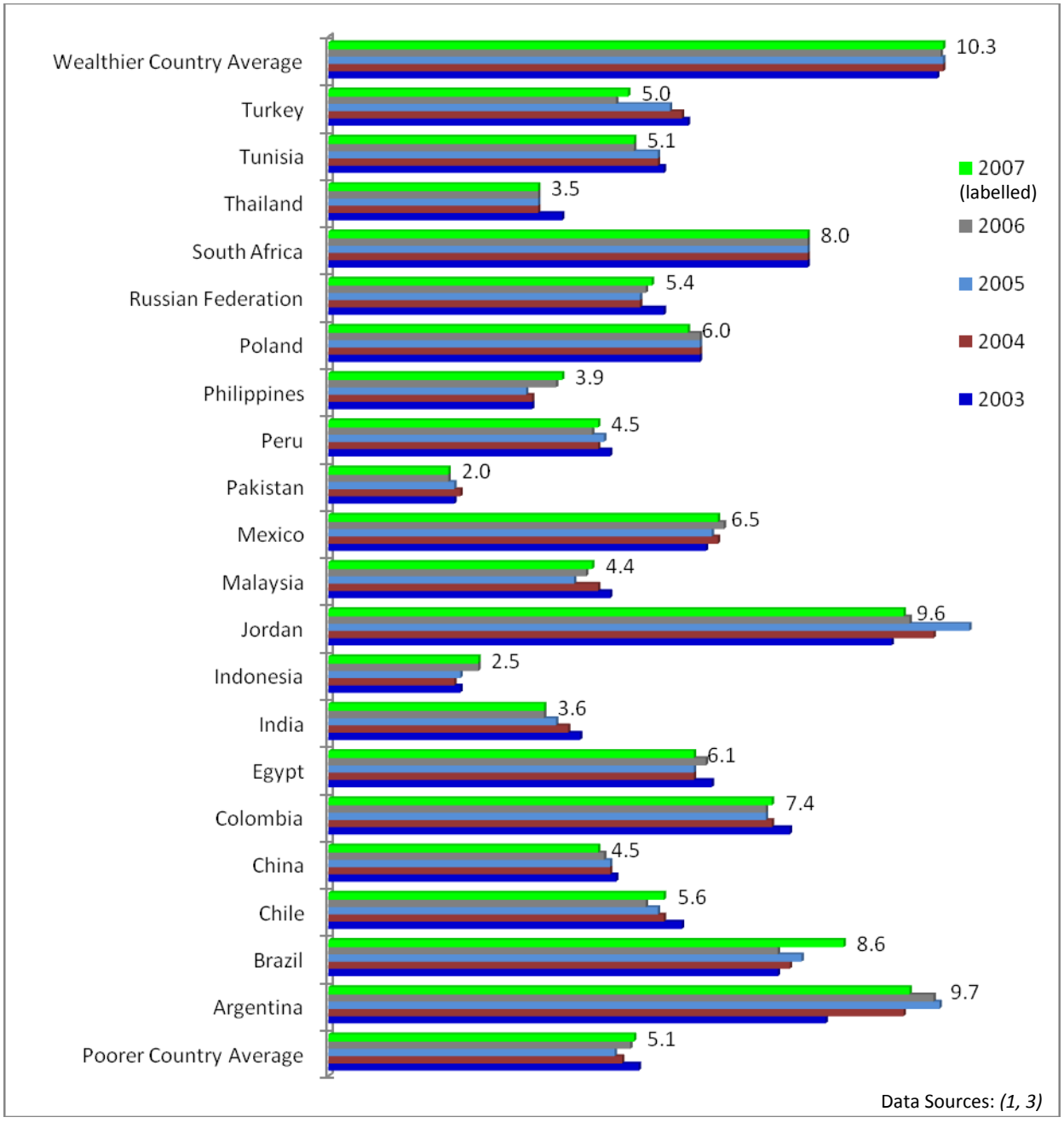


Figure 12. General Government Expenditure on Health as Percentage of Total Expenditure on Health (%)

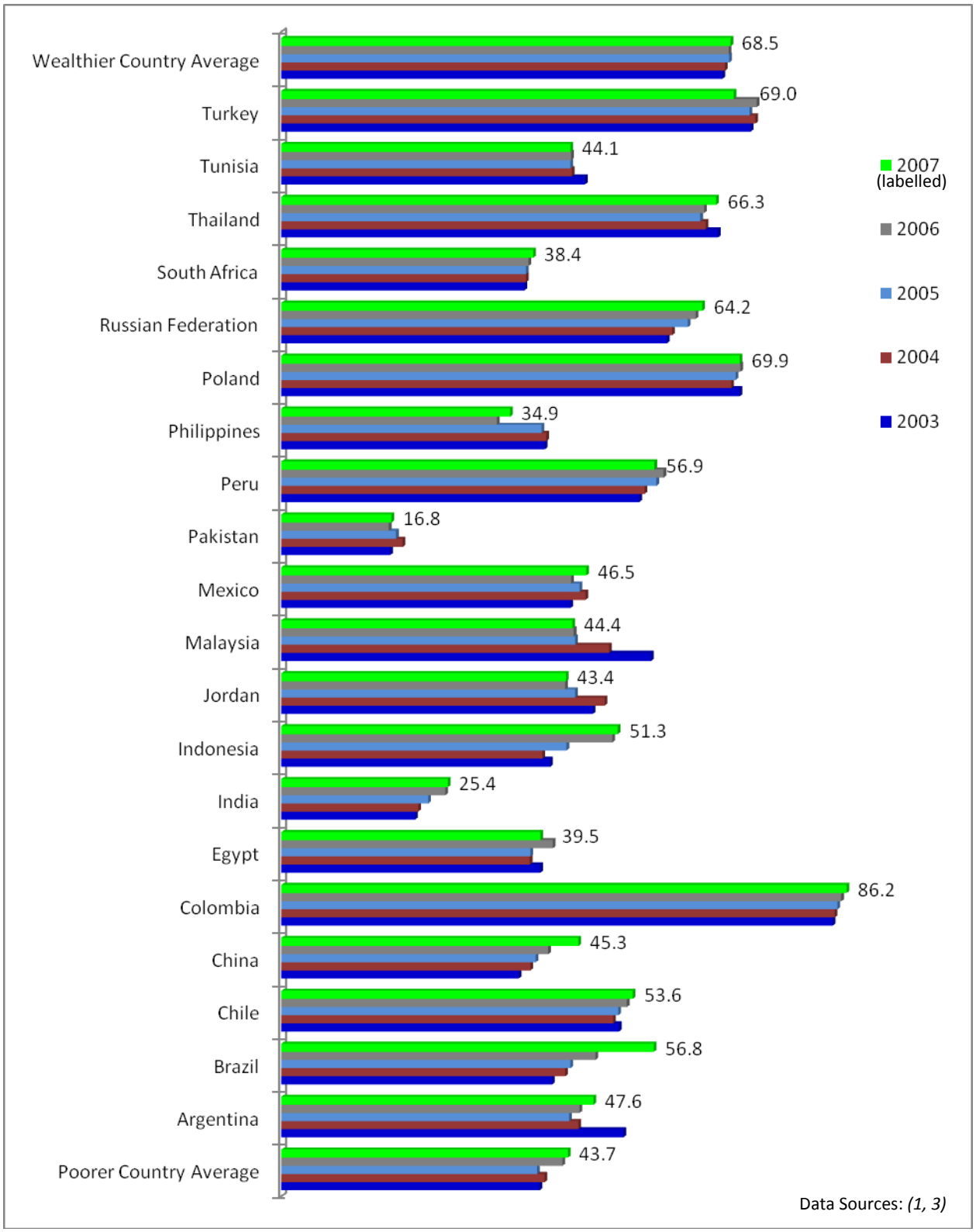


Figure 13. Private Expenditure on Health as Percentage of Total Expenditure on Health (%)

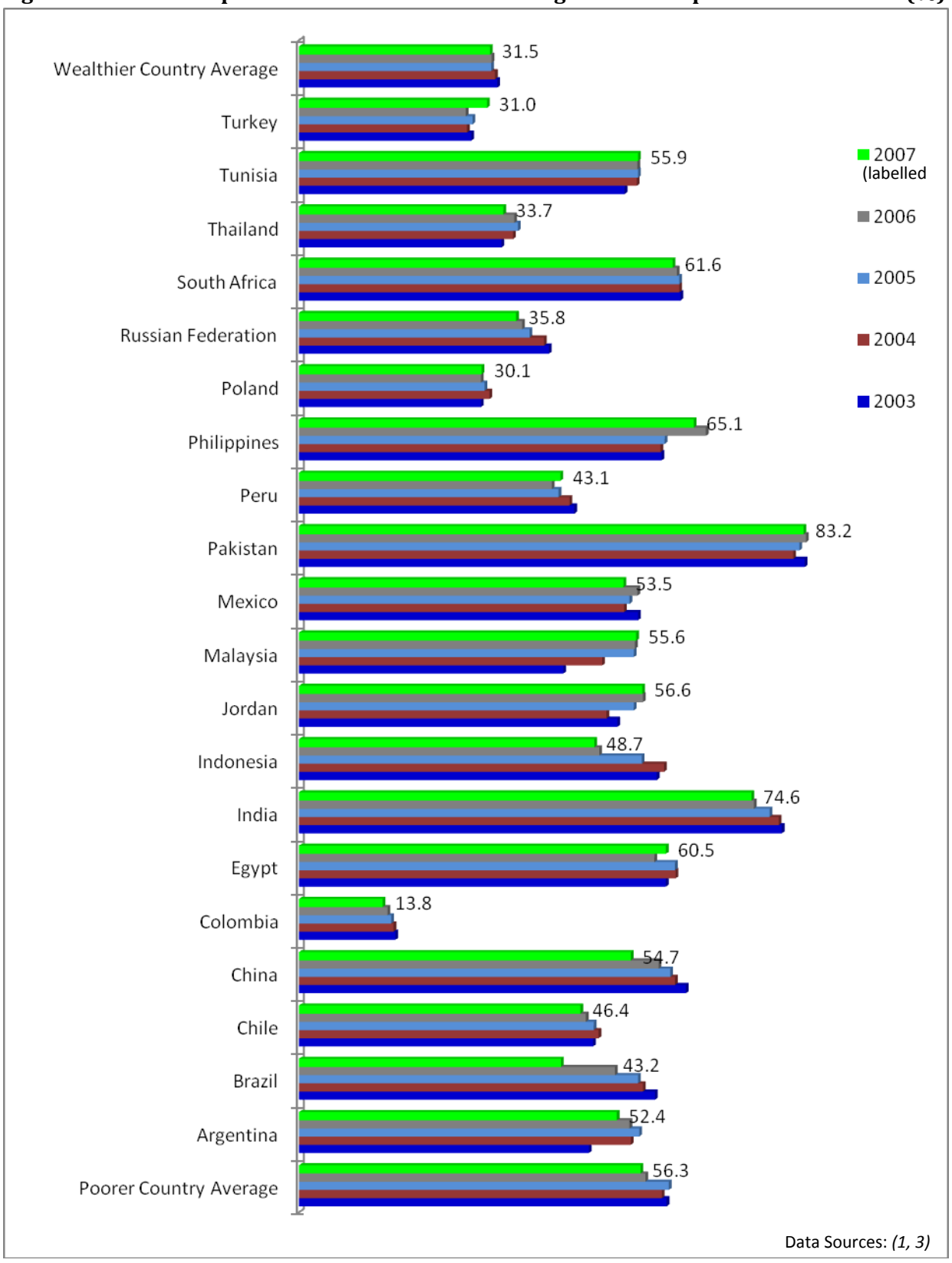


Figure 14. General Government Expenditure on Health as Percentage of Total Government Expenditure (%)

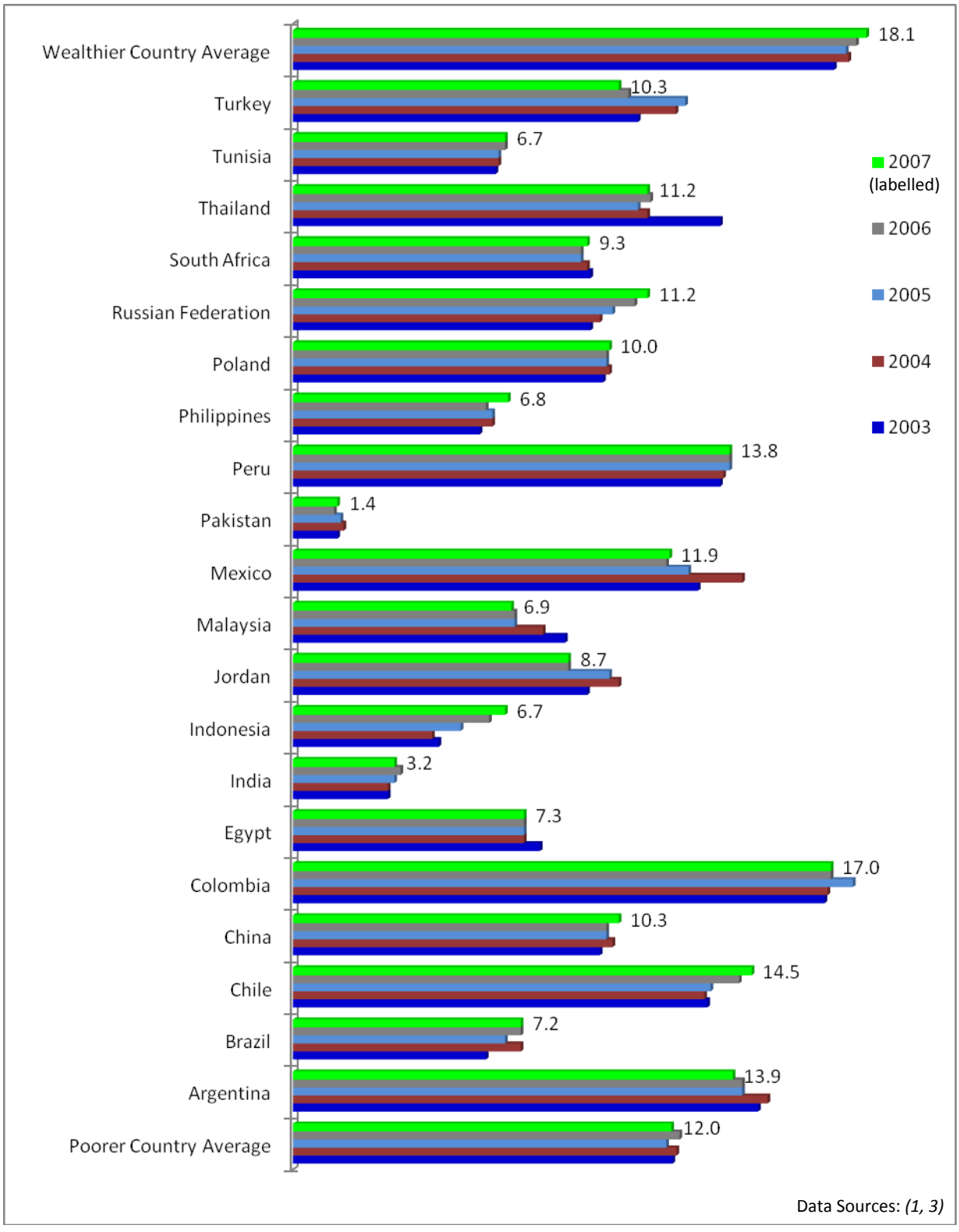


Figure 15. External Resources for Health as Percentage of Total Expenditure on Health (%)

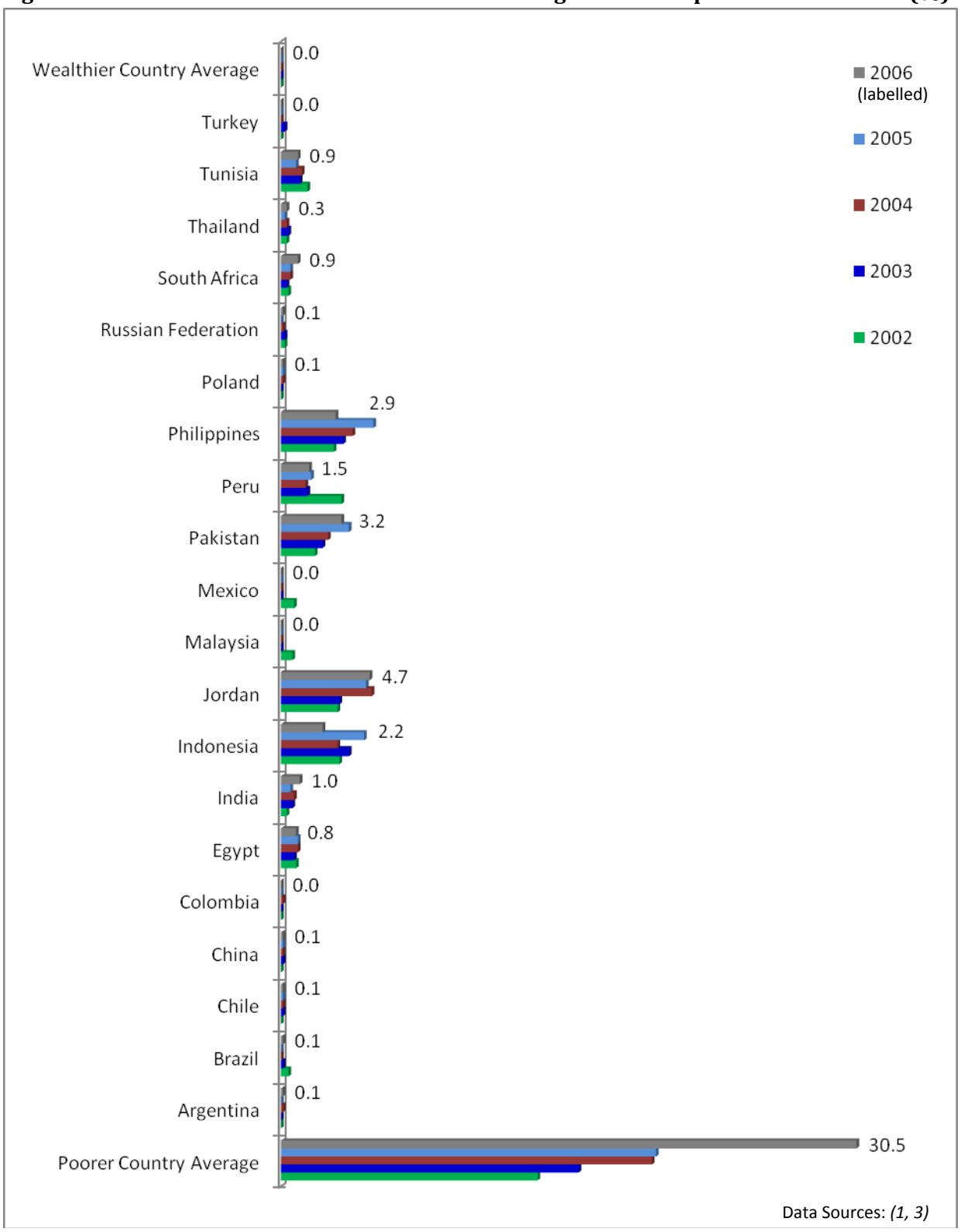


Figure 16. Social Security Expenditure on Health as Percentage of General Government Expenditure on Health (%)

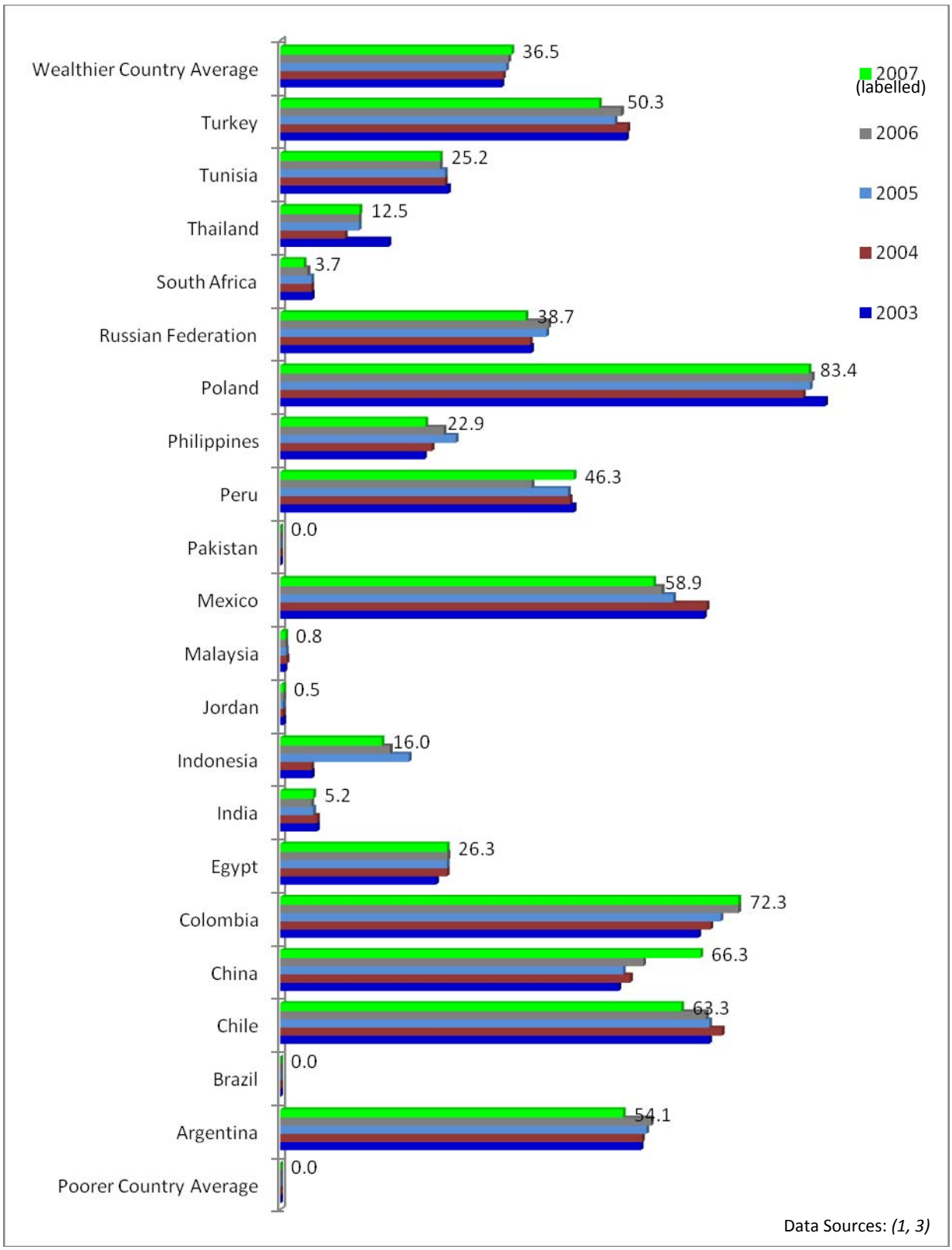


Figure 17. Out-of-Pocket Expenditure as Percentage of Private Expenditure on Health (%)

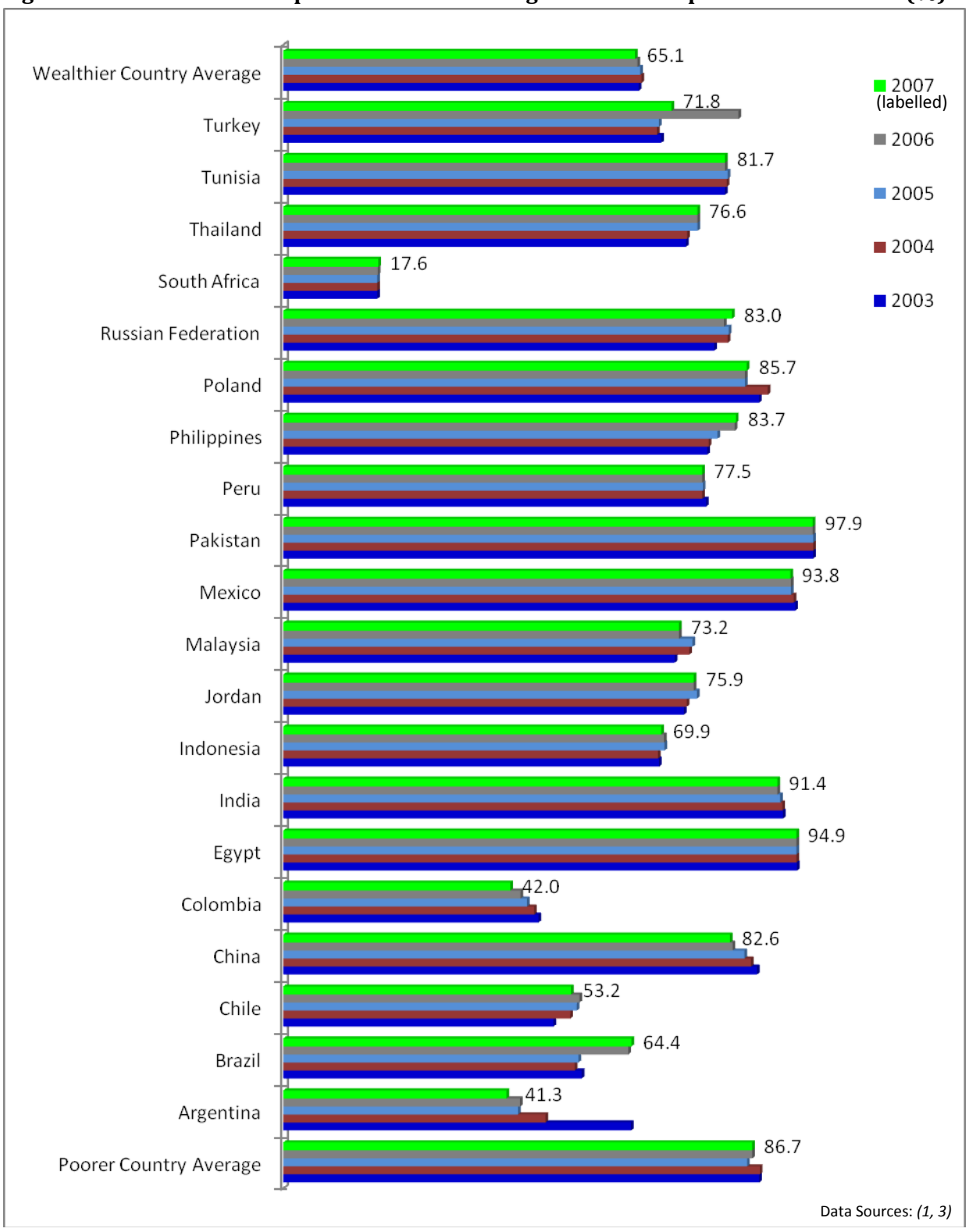


Figure 18. Private Prepaid Plans as Percentage of Private Expenditure on Health (%)

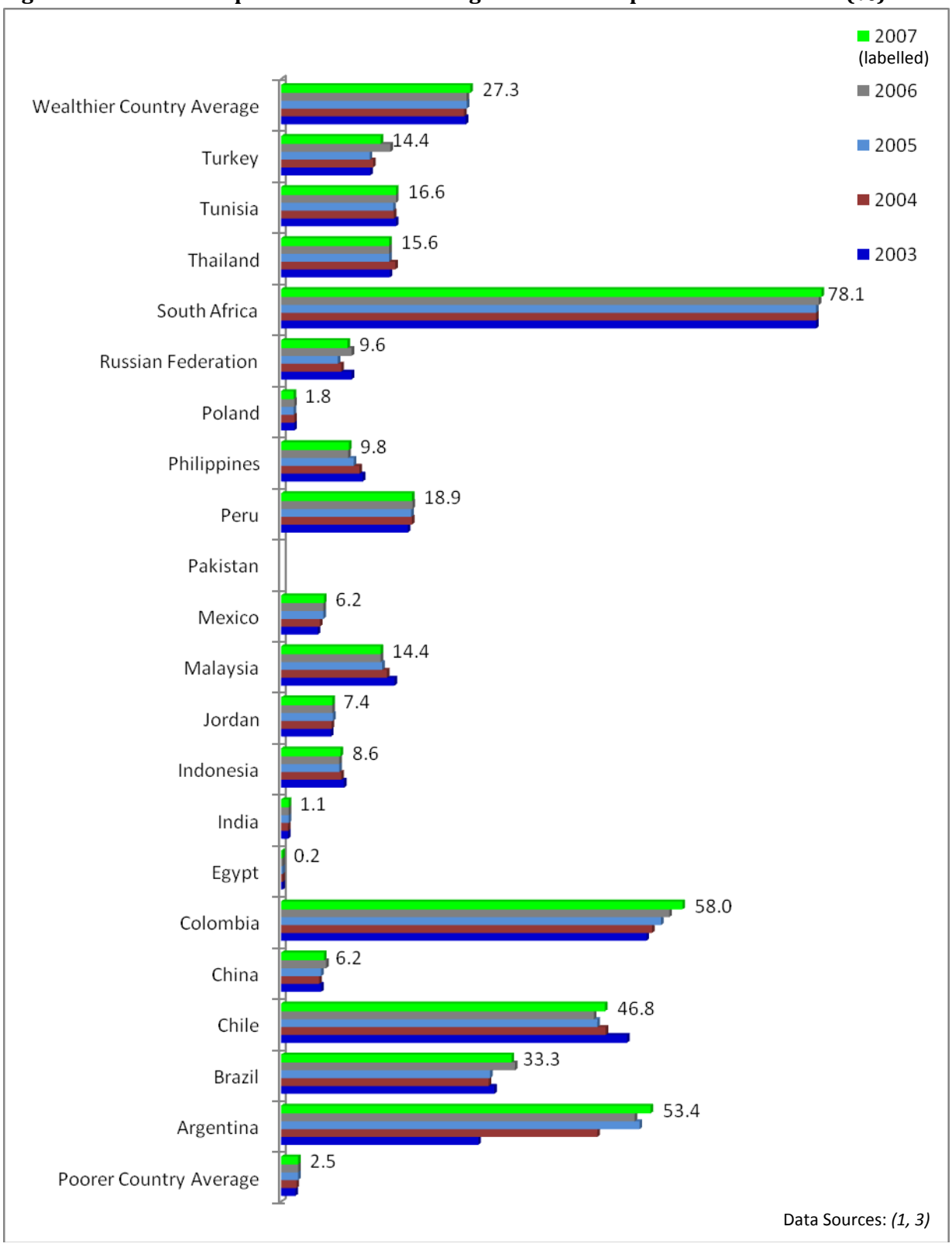


Figure 19. Per Capita Total Expenditure on Health at Average Exchange Rate (US$)

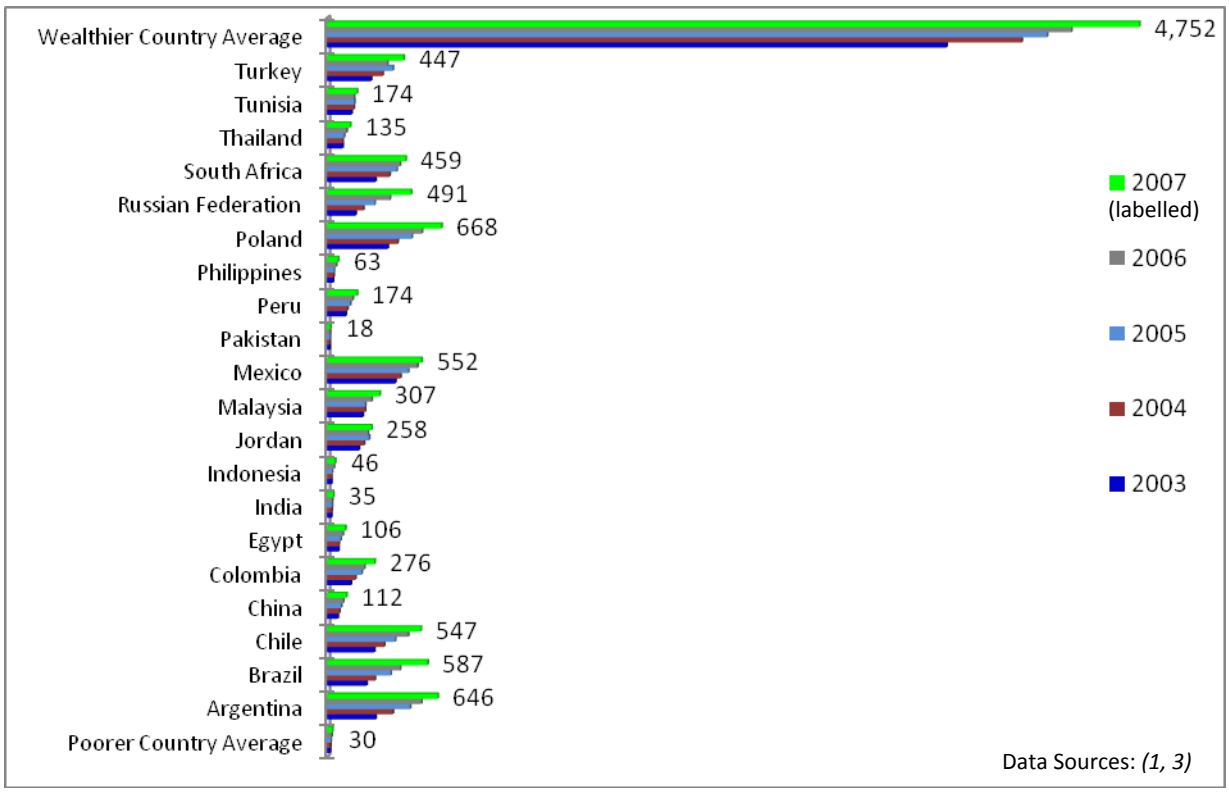


Figure 20. Per Capita Total Expenditure on Health (PPP int. $)

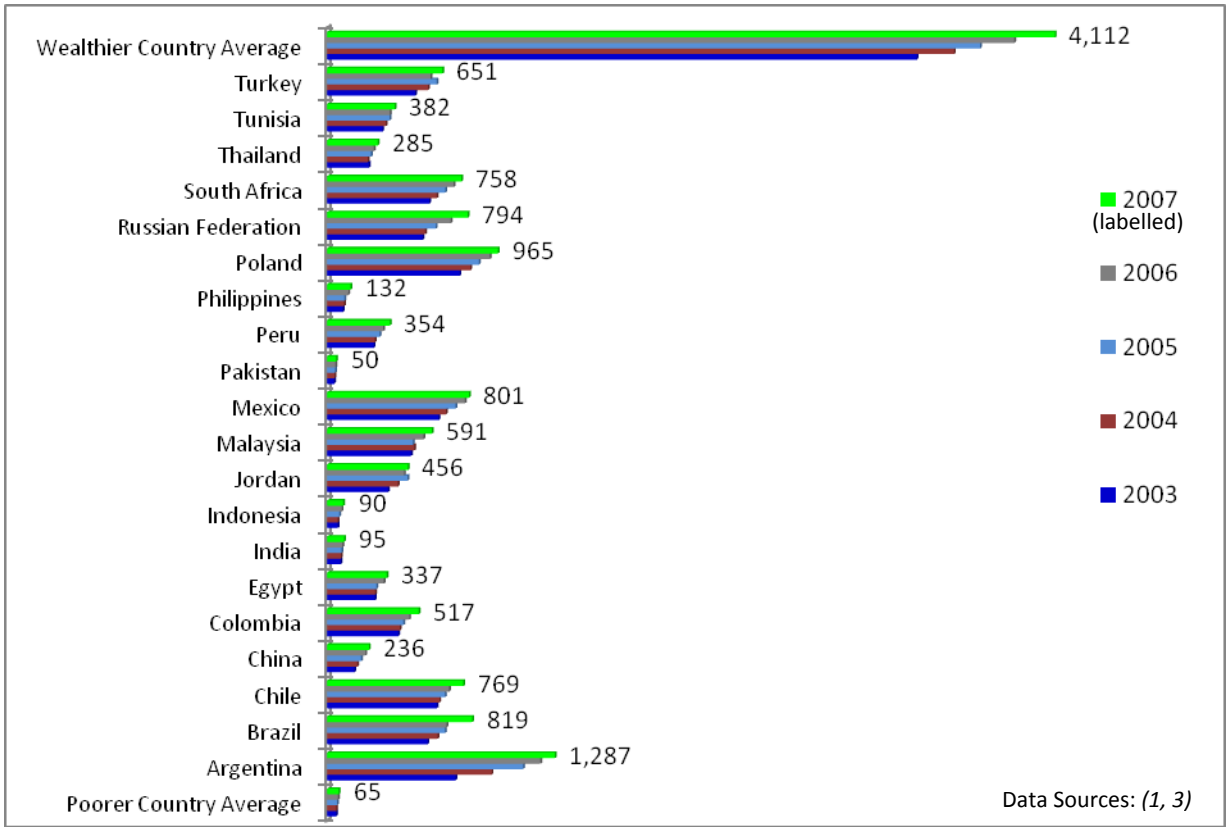


Figure 21. Per Capita Government Expenditure on Health at Average Exchange Rate (US$)

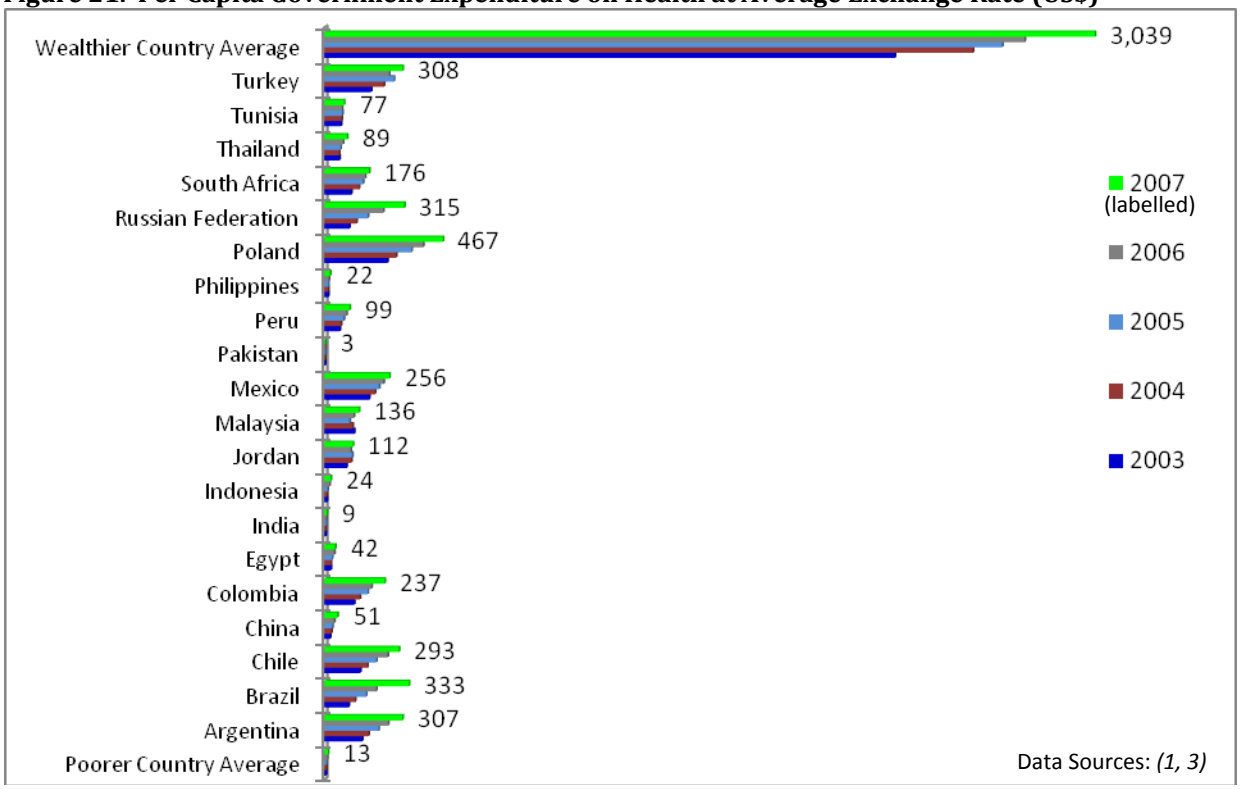
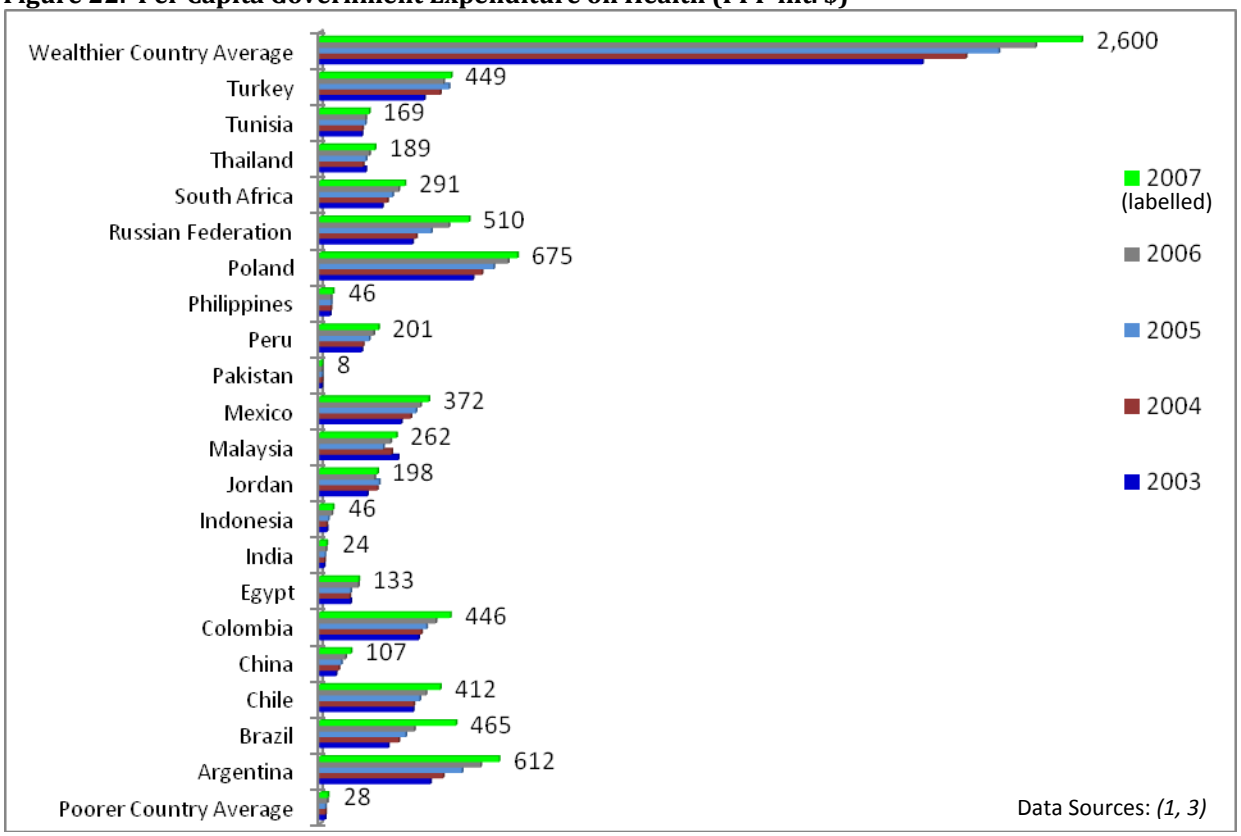


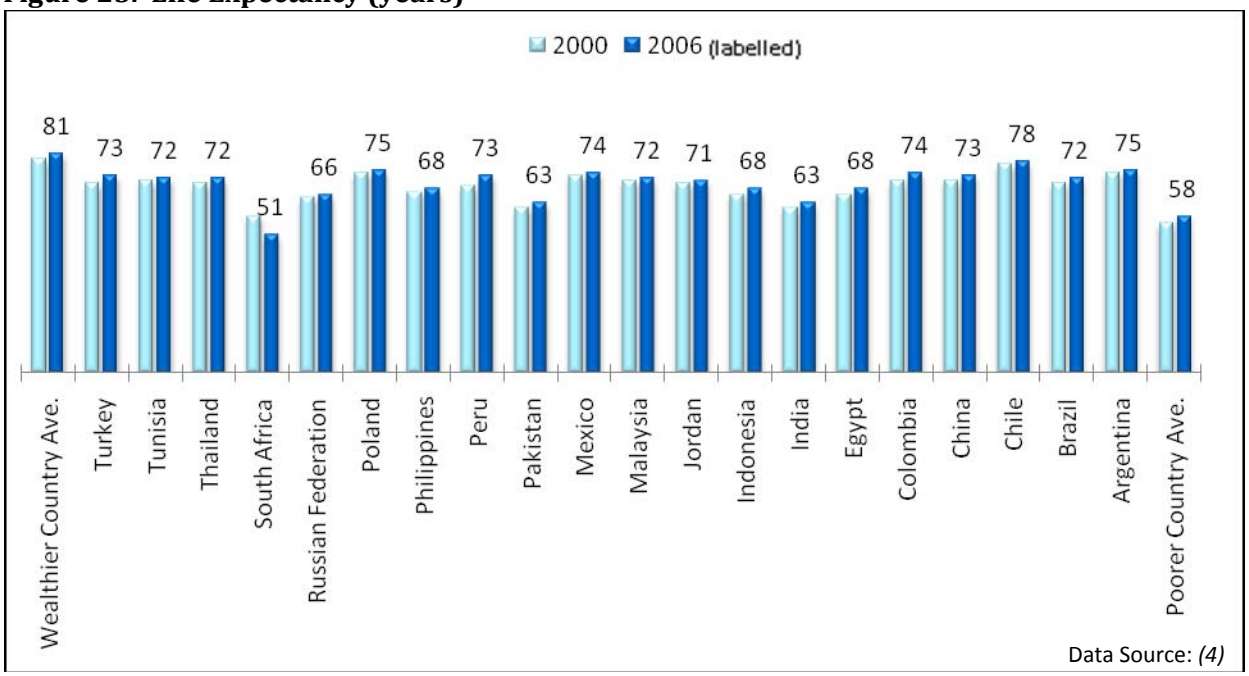
Figure 22. Per Capita Government Expenditure on Health (PPP int. $)



Mortality and Burden of Disease

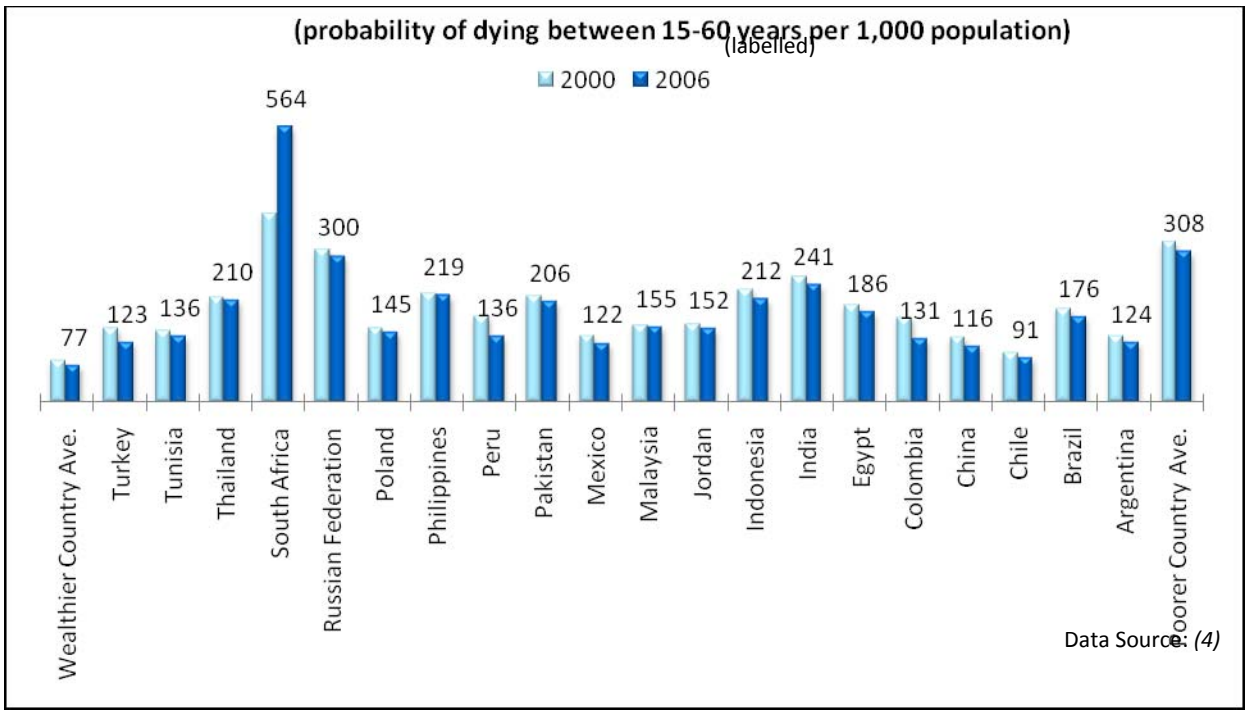
The following section illustrates the most recent trends in life expectancy, mortality rates, and immunization coverage. Although EMCs' life expectancy and immunization coverage performance are comparable with wealthier country estimates, mortality rates appear to be lagging.

Figure 23. Life Expectancy (years)



Data Source: *(4)*

Figure 24. Adult Mortality Rate



Data Source: *(4)*

Figure 25. Maternal Mortality Ratio

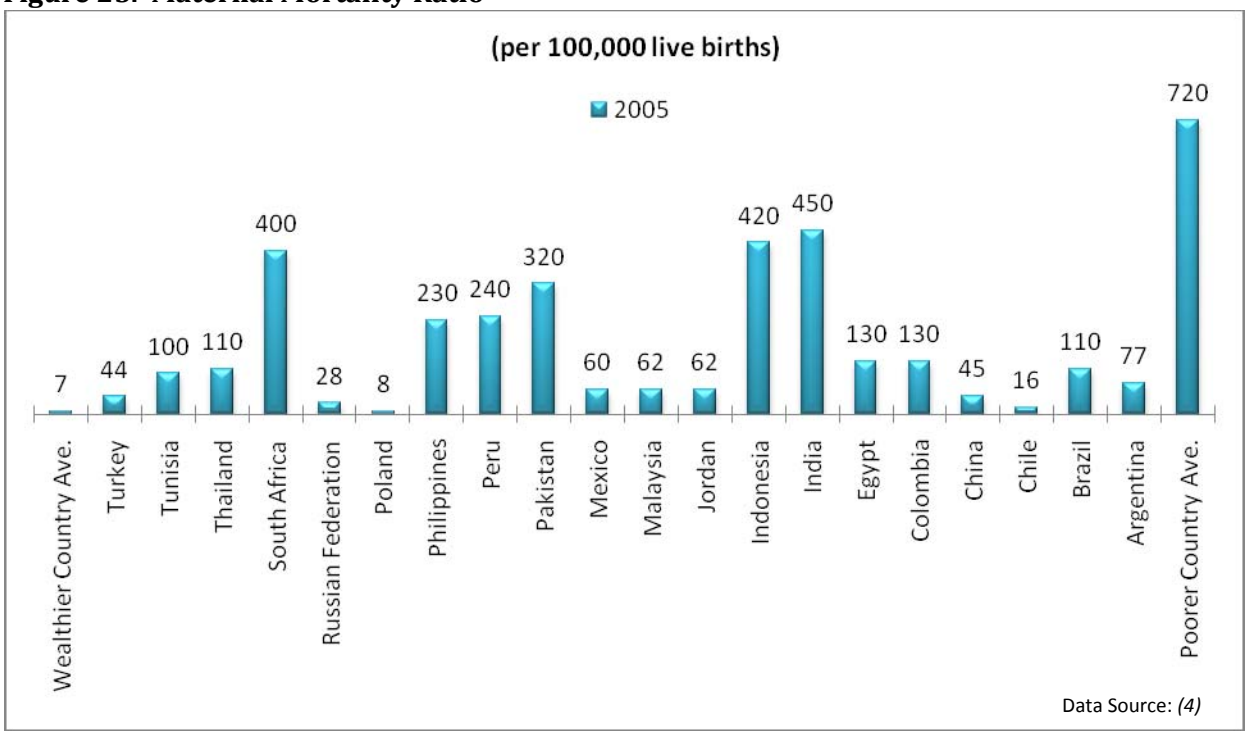


Figure 26. Under-5 Mortality Rate

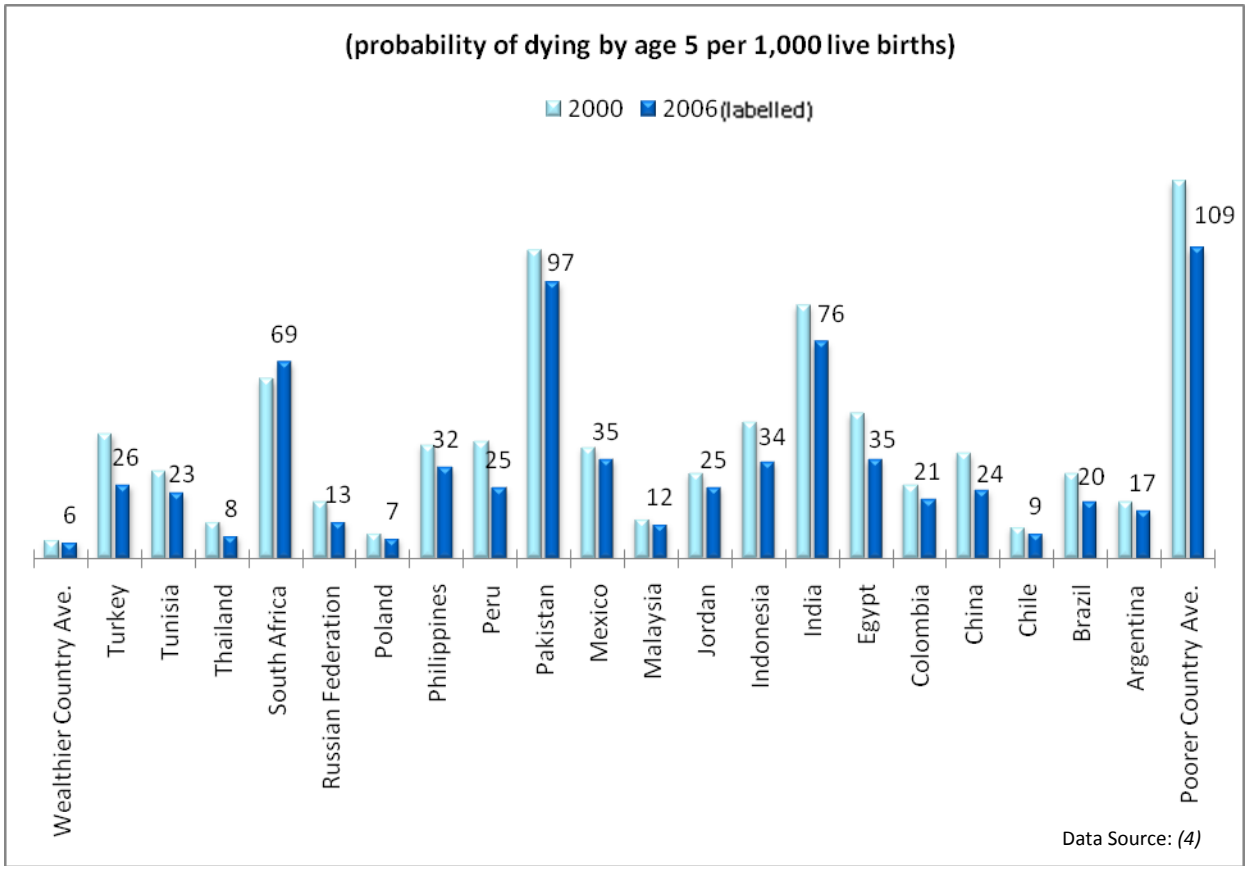


Figure 27. Years of Life Lost (YLL) to Communicable and Non-Communicable Diseases (%)

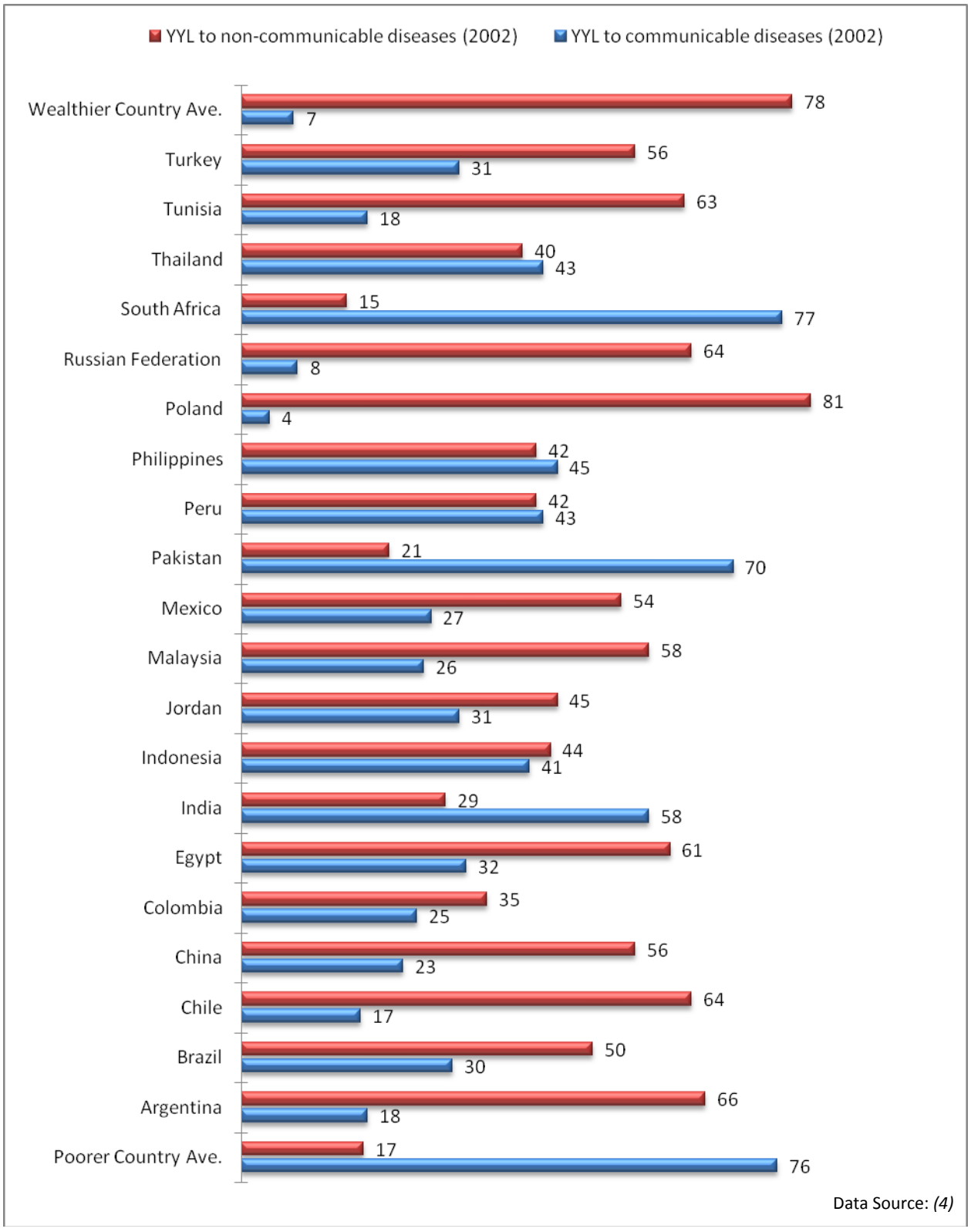


Figure 28. One-year-olds Immunized with 3-doses DTP3 (%)

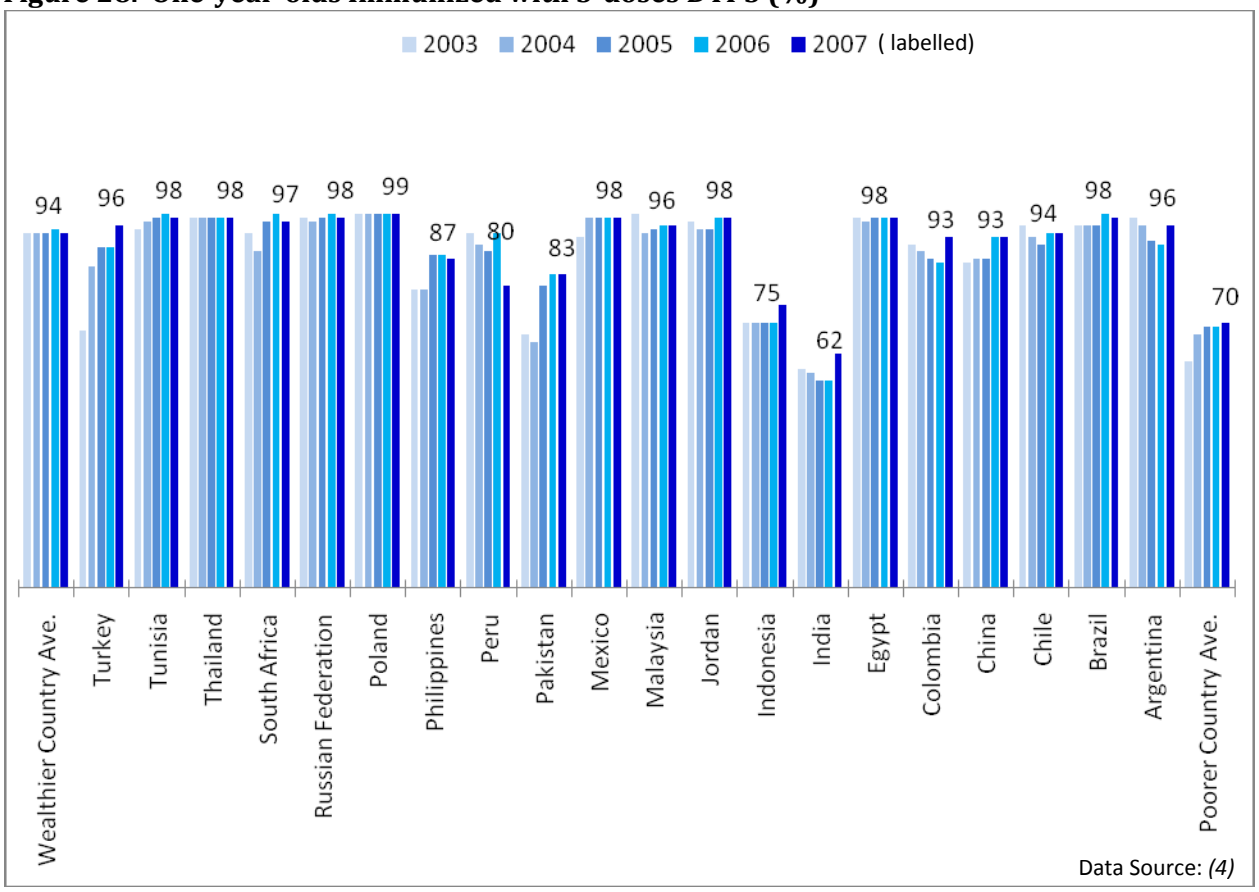


Figure 29. One-year-olds Immunized with Meningococcal Conjugate Vaccine (MCV), (%)

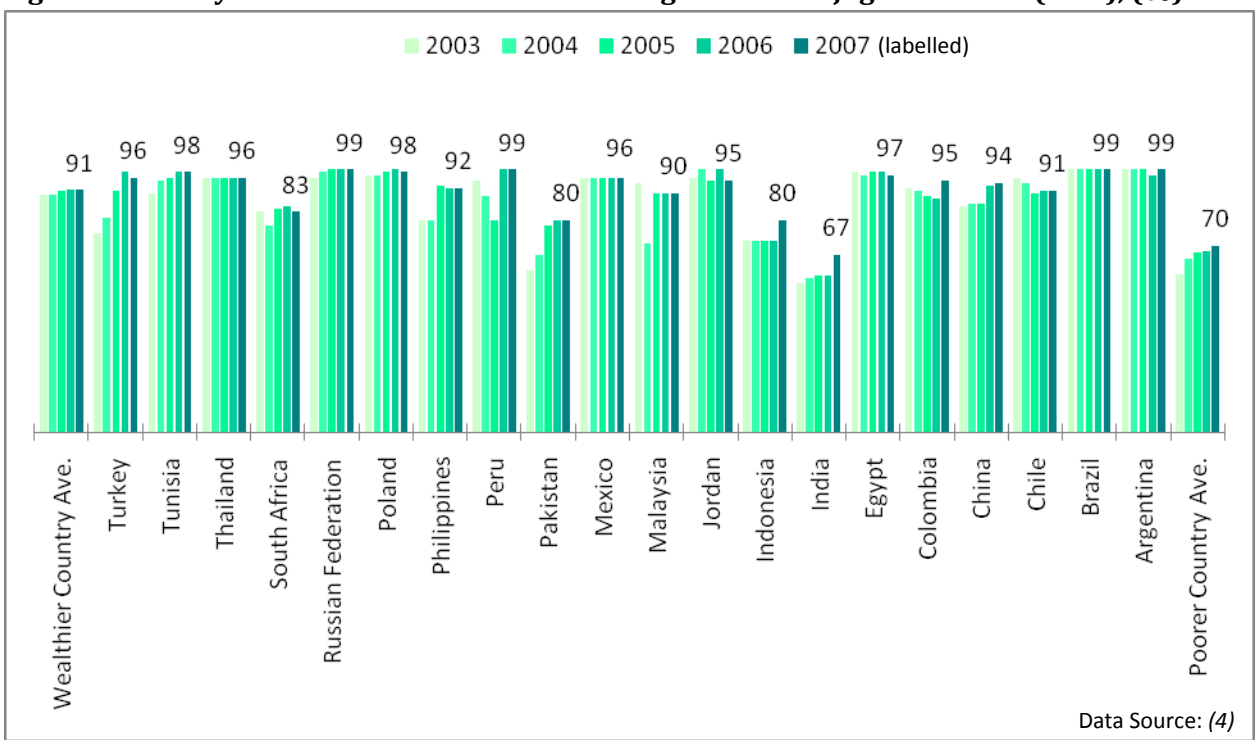


Figure 30. Age-Standardized Mortality Rate for Cardiovascular Diseases

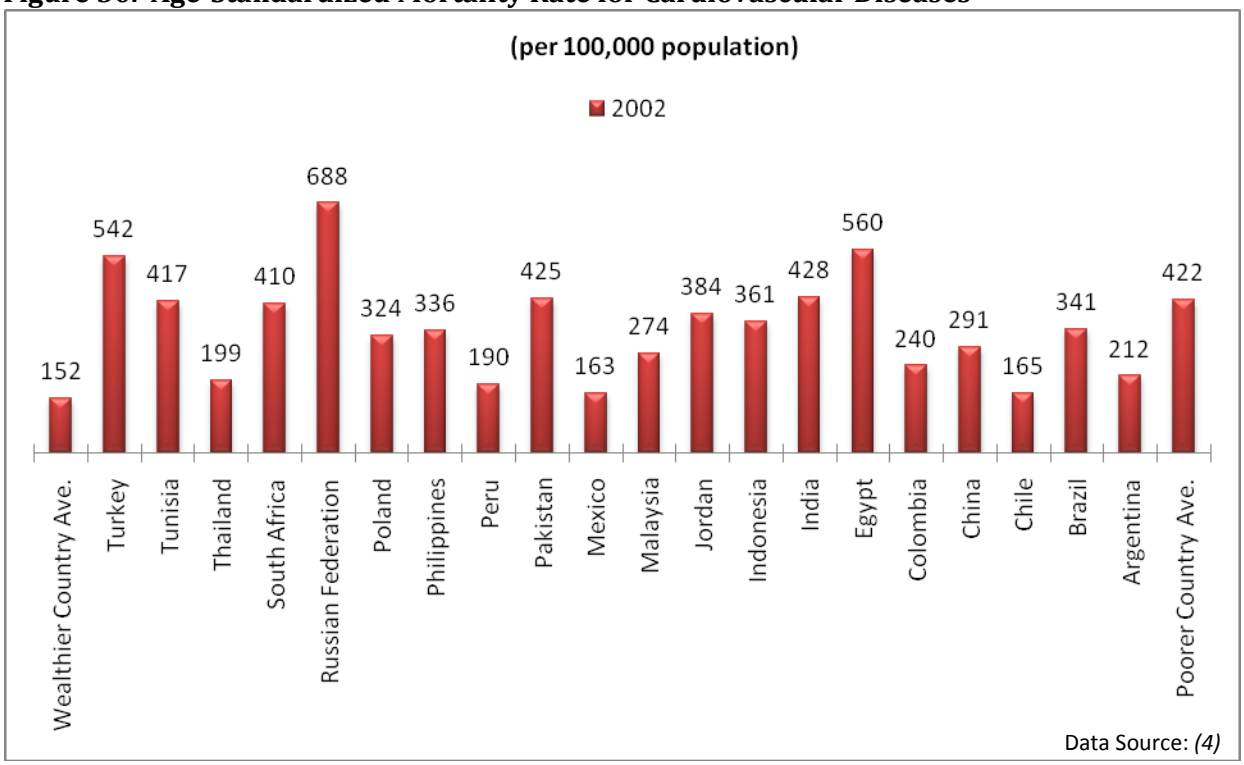
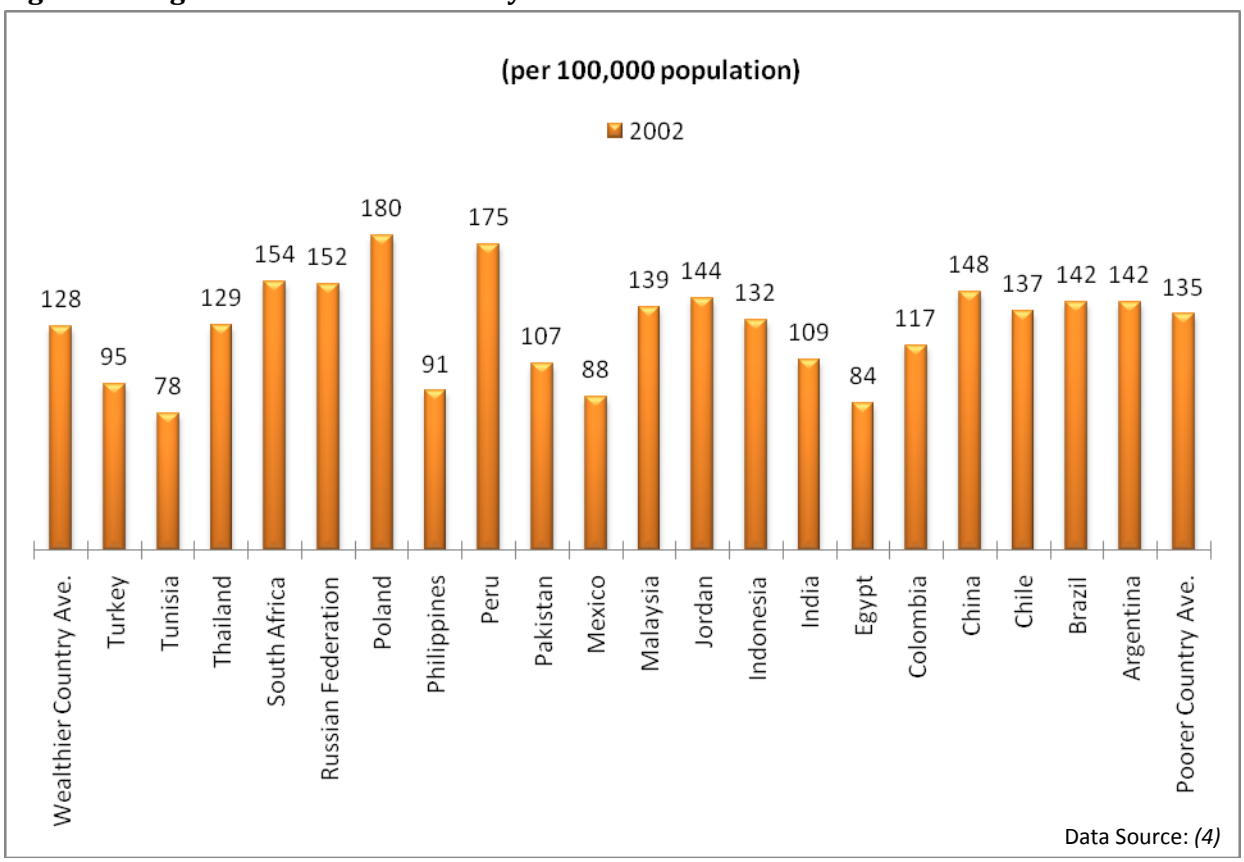


Figure 31. Age-Standardized Mortality Rate for Cancer



Risk Factors

Figure 32. Population with Sustainable Access to Improved Drinking Water Sources (%)

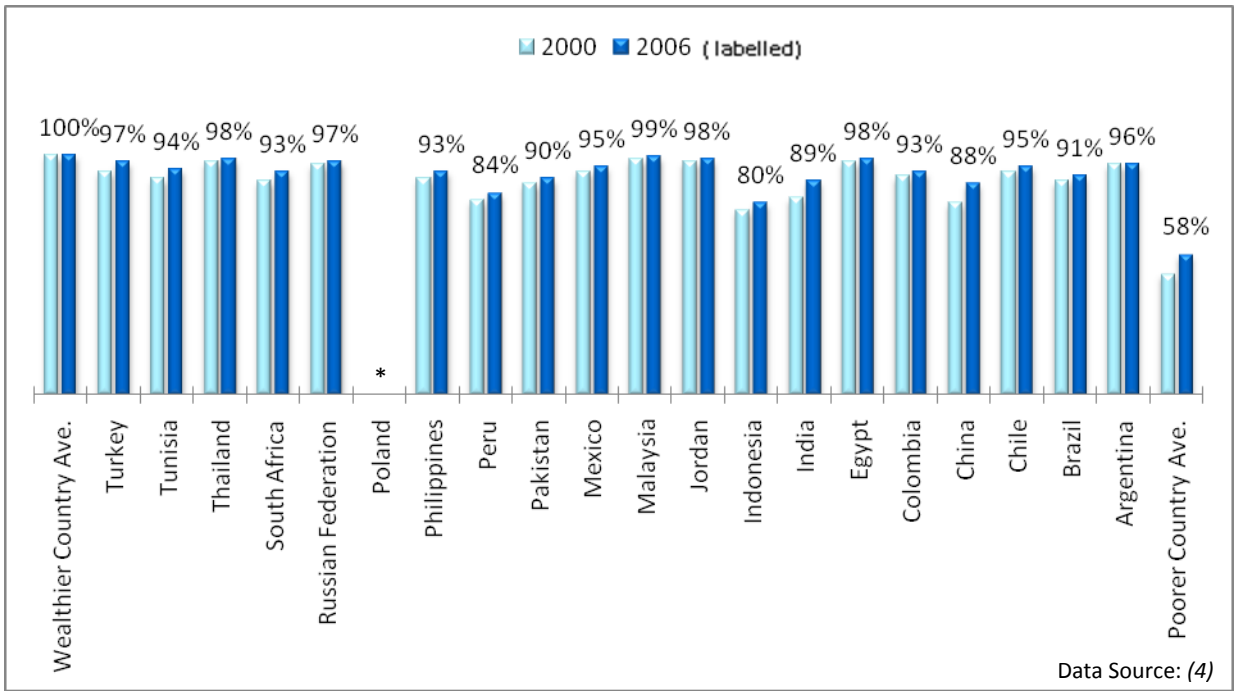
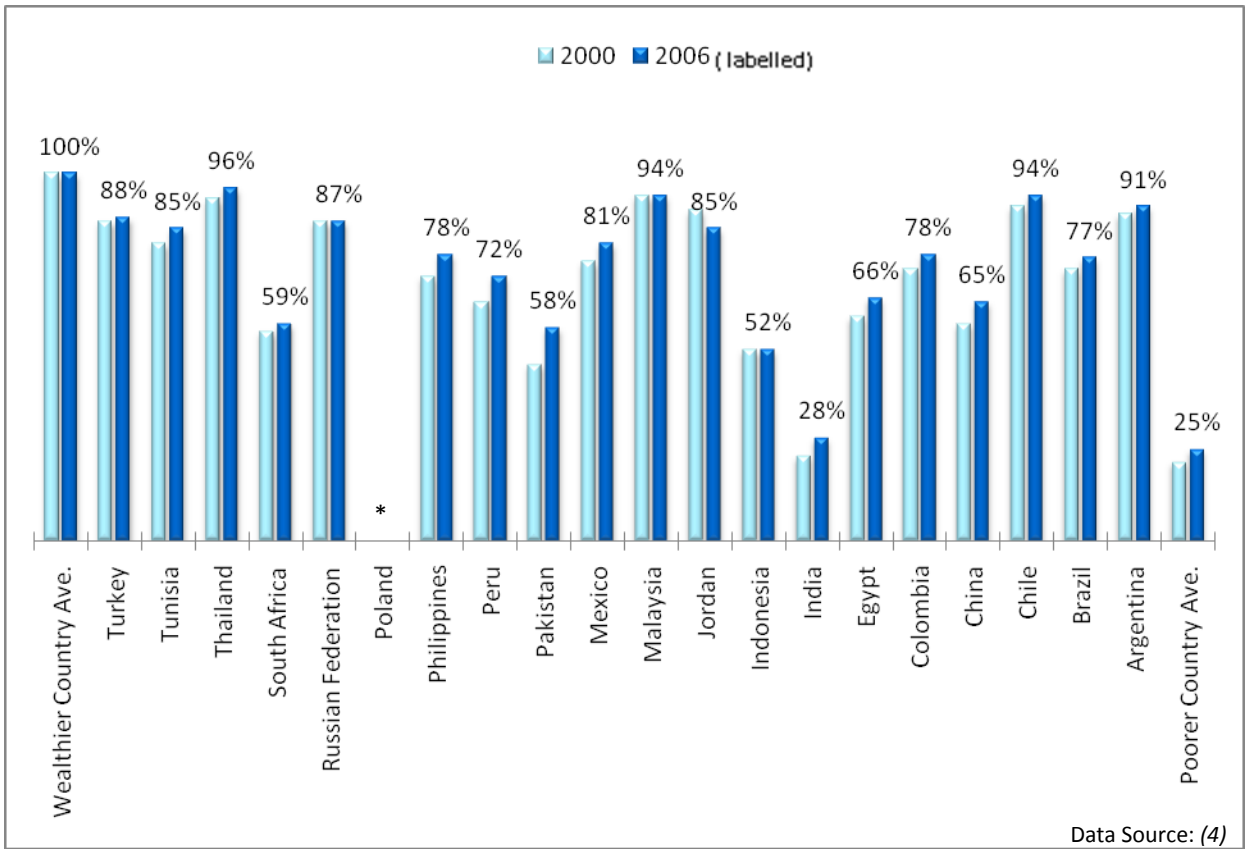
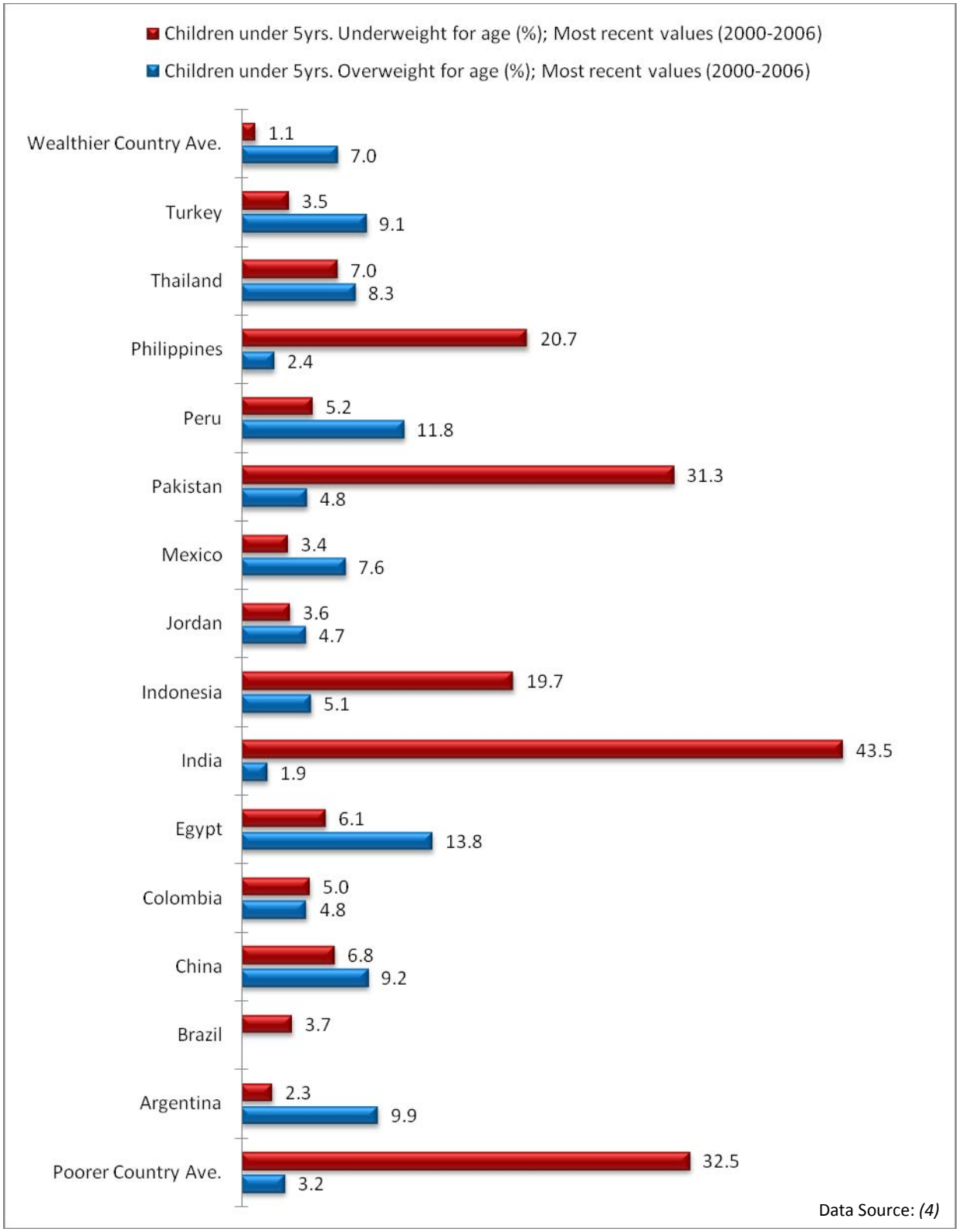


Figure 33. Population with Sustainable Access to Improved Sanitation (%)



**Note: No WHO data available for Poland from 1990-2008*

Figure 34. Nutrition Indicators for Children Under 5 Years of Age



Health System Resources

The 2006 World Health Report reveals an estimated shortage of almost 4.3 million doctors, midwives, nurses and support workers worldwide. Countries with the lowest relative need have the highest numbers of health workers, while those with the greatest burden of disease must operate with a much smaller health workforce. Areas with teaching hospitals and a population that can afford to pay for health services invariably attract more health workers than regions without such facilities or financial support. As a result, health worker density generally is highest in urban centers where teaching hospitals and high incomes are most common. Although the extent of urbanization increases across countries with rising incomes, in countries of all income levels, the proportion of health professionals living in urban areas exceeds the proportion of the general population found there. The training of health workers is costly, and many migrate overseas once they have qualified. The variation between countries in the definitions used to categorize health workers has made it difficult to comprehensively account for the health workforce in different settings. Similarly, information on skill mix, age profiles, sources of income, geographical location and other characteristics important for policy development is far from complete. The following section displays the most recently published data on health system resource density and distribution, with particular emphasis on the healthcare workforce.

Figure 35. Physician Density

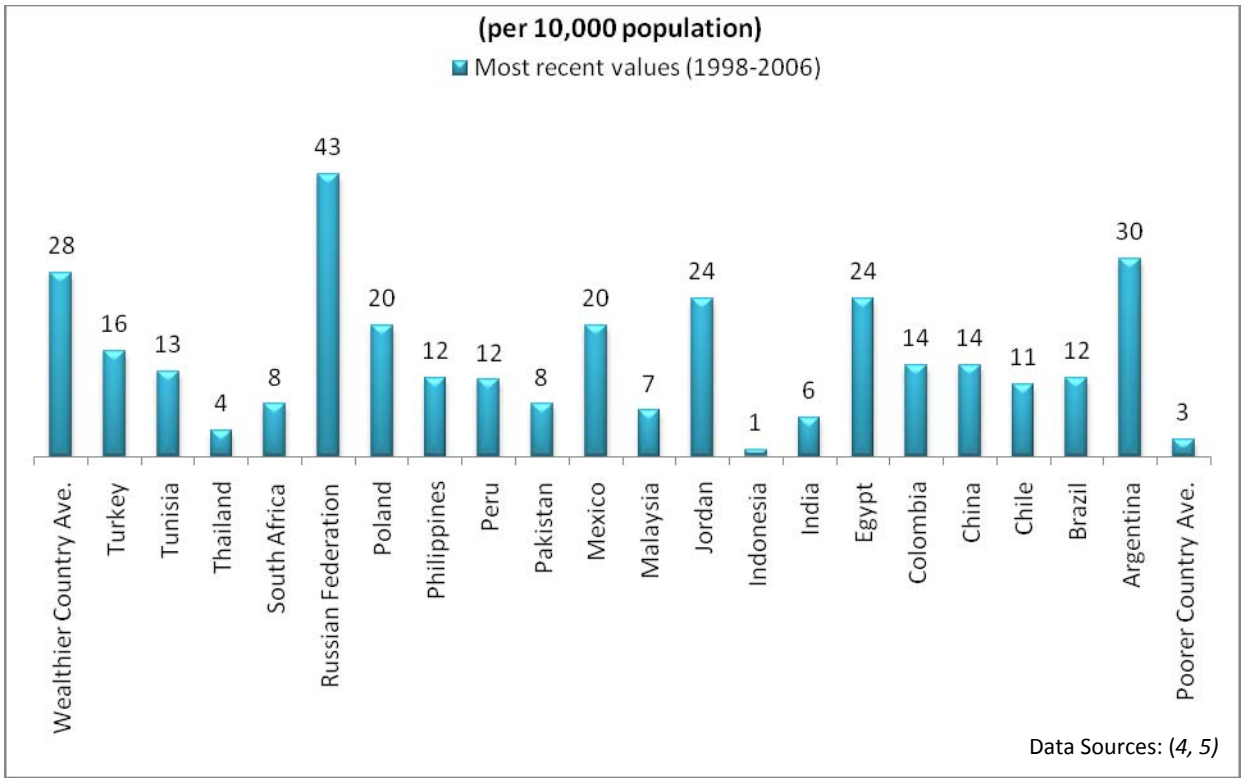


Figure 36. Nursing and Midwifery Personnel Density

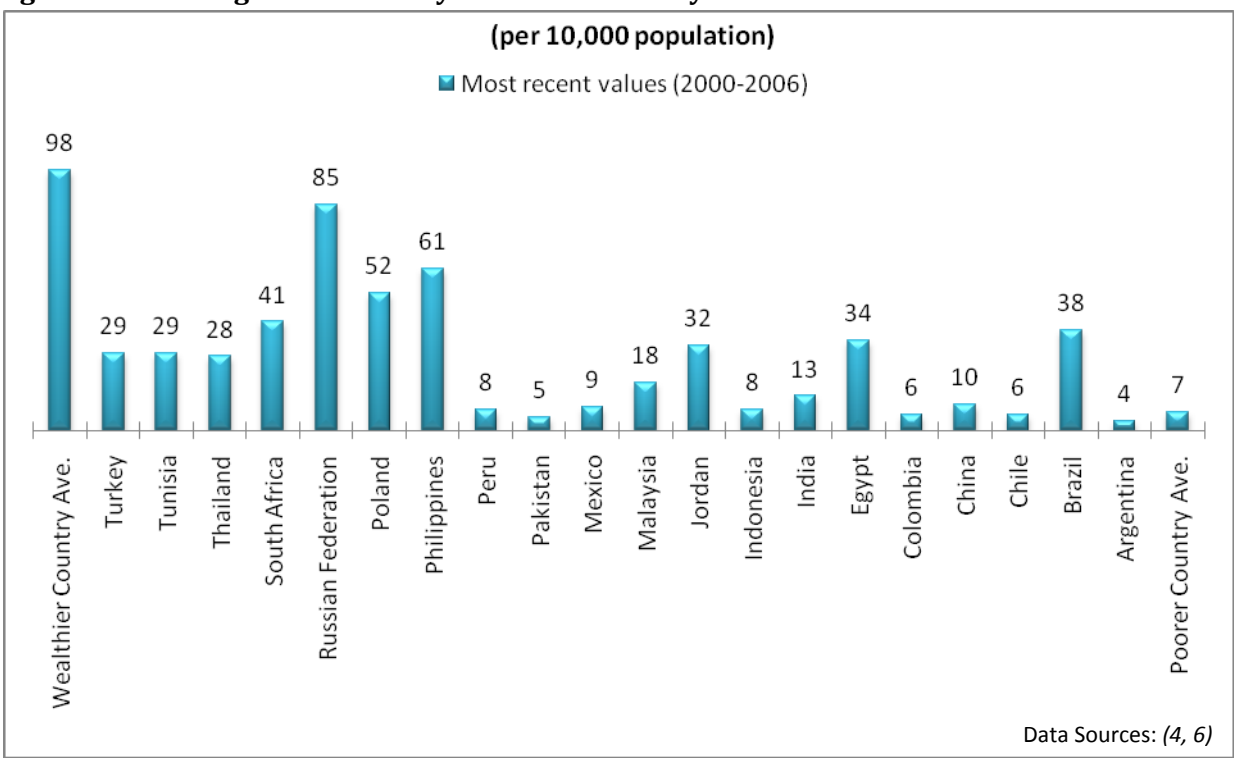


Figure 37. Ratio of Nurses and Midwives to Physicians

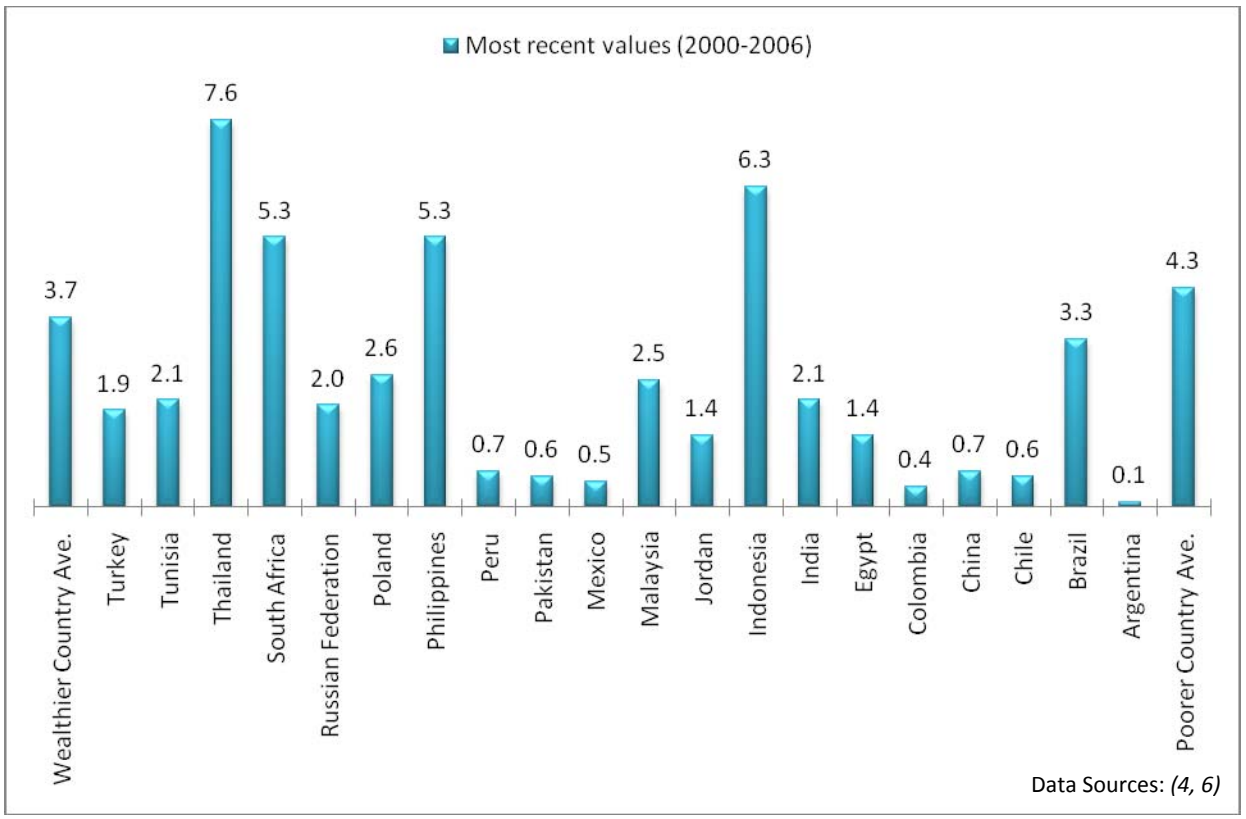


Figure 38. Other Health Service Providers Density

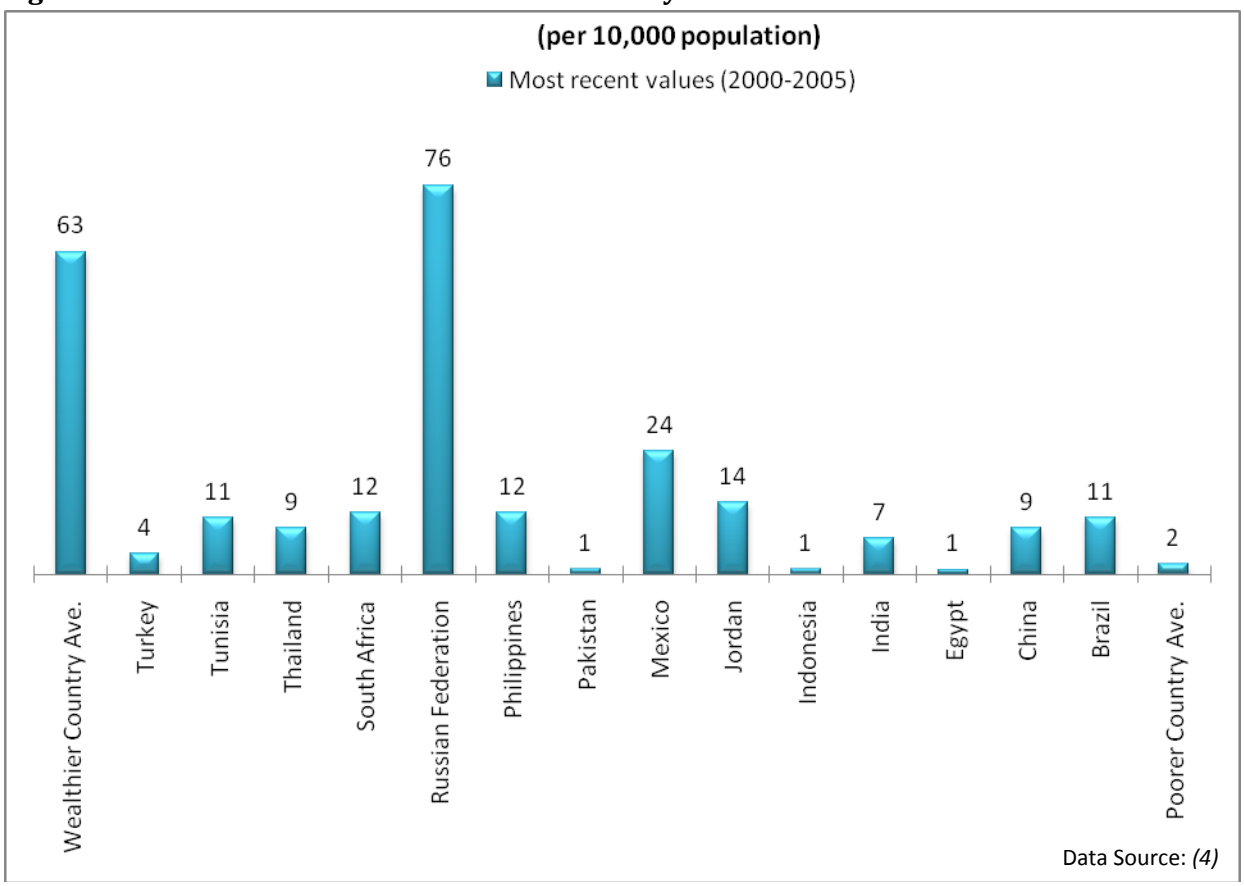


Figure 39. Ratio of Health Management and Support Workers to Health Service Providers

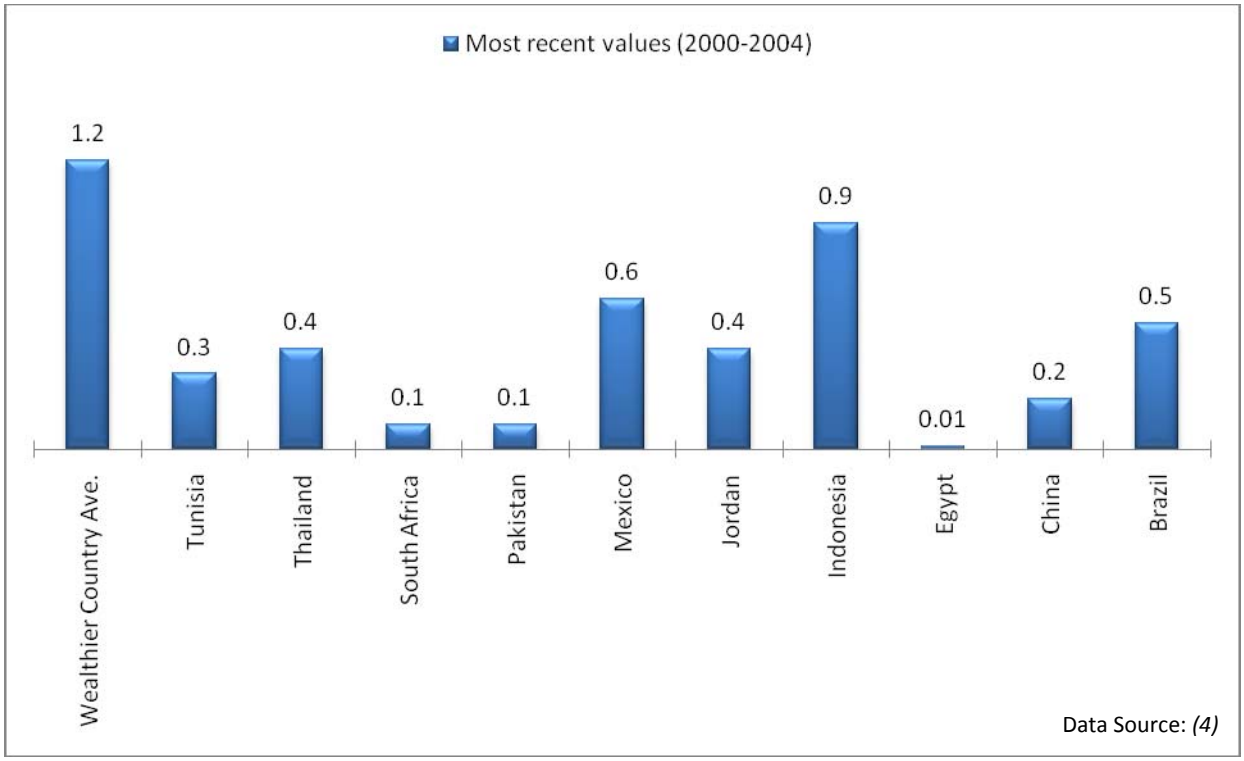


Figure 40. Hospital Beds

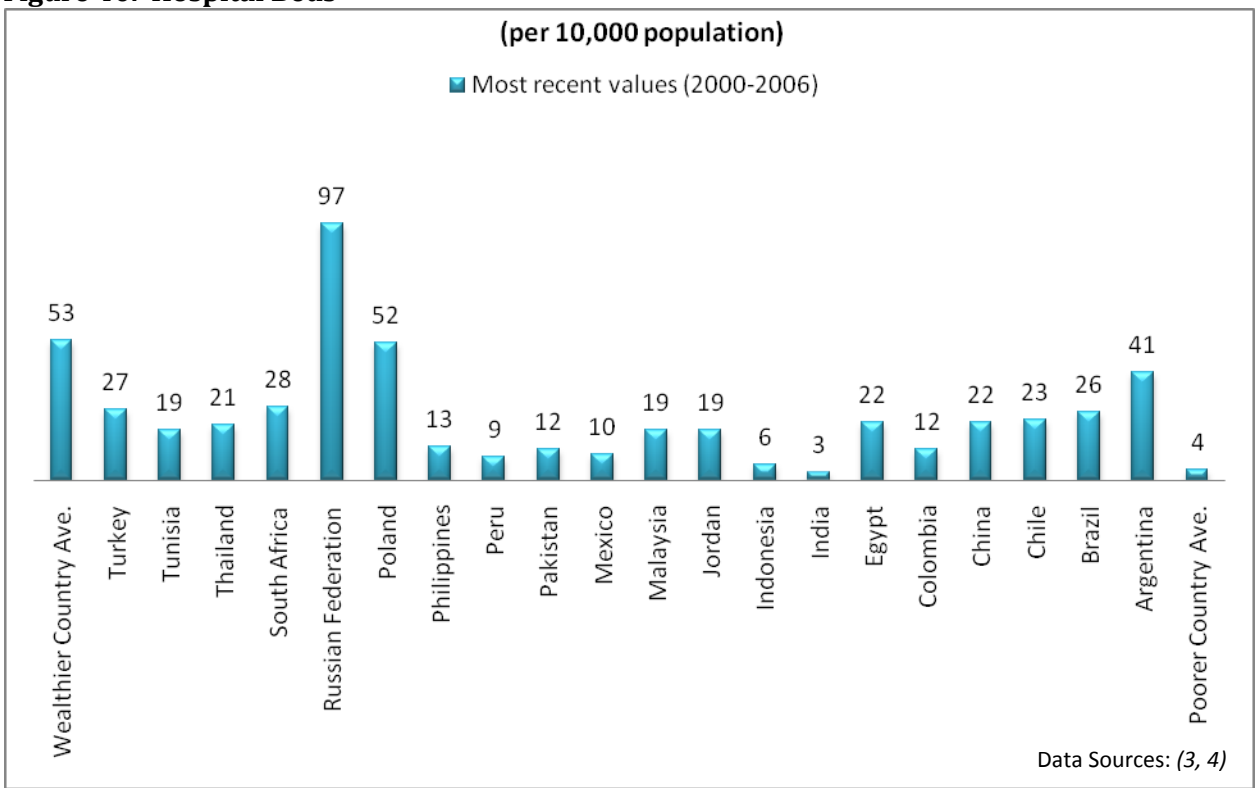
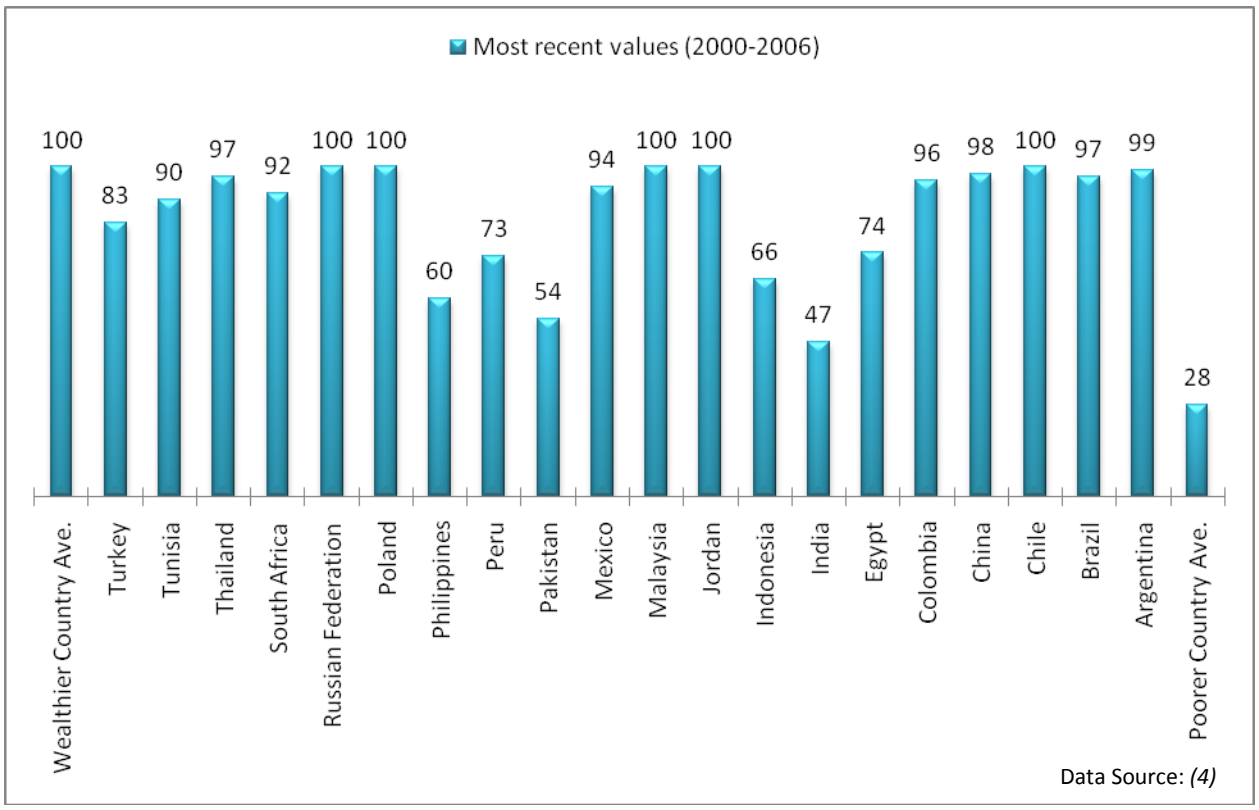


Figure 41. Births Attended by Skilled Health Personnel (%)



Ongoing shifts in healthcare labor and talent will be far more profound than the widely observed migration of jobs to low-wage countries. The shift to knowledge-intensive industries highlights the importance and scarcity of well-trained talent. The increasing integration of global labor markets, however, is opening up vast new talent sources. For many companies and governments, global labor and talent strategies will become as important as global sourcing and manufacturing strategies.[7] Within countries, there will exist trade-offs and spill-overs among programmes. Successfully tested micro-interventions may still not lead to desired macro objectives. Development can often be a process of muddling through, having a broad sensible set of policy objectives, experimenting in a variety of ways to find out what seems to work, being alert to possible unforeseen consequences, and scaling successful experiments up while constantly testing them.[8]

Pharmaceuticals, Science and Technology Data

The following section focuses on scientific and technological data, with particular emphasis on the pharmaceuticals market. Brief descriptions of the global pharmaceuticals and generic markets are provided, followed by additional country-specific data on information communication technology indicators.

Global Pharmaceuticals Market

Fast economic growth, increasing economic and political stability coupled with tremendous patient potential and changes in lifestyle present new opportunities for global pharmaceutical companies. Despite problematic intellectual property protection, high market potential is attracting most multinational pharmaceutical companies. The global pharmaceuticals market grew by 3.8% in 2008 to reach a value of US$615.1 billion. In 2013, the market is forecast to have a value of US$734.0 billion, an increase of 19.3% since 2008. The four leading companies within the global marketplace are: Pfizer Inc., GlaxoSmithKline Plc., Merck & Co., Inc., and AstraZeneca PLC.[9] The major buyers of prescription or ethical drugs in the global market are national health services and individuals.

Healthcare system characteristics differ greatly between different EMCs. Greater state participation in healthcare provision is observed in all markets, although growing disposable income and out-of-pocket expenditure are contributing to market growth. The changing medical needs of the emerging countries are favouring multinational companies: sales of anti-infective agents are slowing down and cancer drugs, immunomodulatory and respiratory drugs

among others are growing at fast rates. With increasing purchasing power consumer preference for expensive new treatments is growing.

Generics Market

The generics market remains a major growth area in the global healthcare market. That growth has been partly driven by cost-containment in several national healthcare sectors, with governments seeking to promote the use of generic products over higher-priced originator products.[10] In China, for example, generic drugs are the mainstay of the country's pharmaceutical industry. Due to previously lax intellectual property laws, many medicines that enjoyed exclusivity in developed states were copied by local manufacturers; therefore many patients in China had access to the latest pharmaceuticals.

In 2008, the global generics market was valued at US$106.1 billion, registering a growth of 12.6% over the previous year, which is five times that of patented drugs. It is estimated that the global generics market will sustain a CAGR of 14.0% during the period, 2008-2012. Patent expiries of blockbuster drugs and increasing healthcare expenditures will continue to drive the growth of the industry.

Figure 42. Pharmaceuticals Market: 2008 Market Value (US$ Billions)

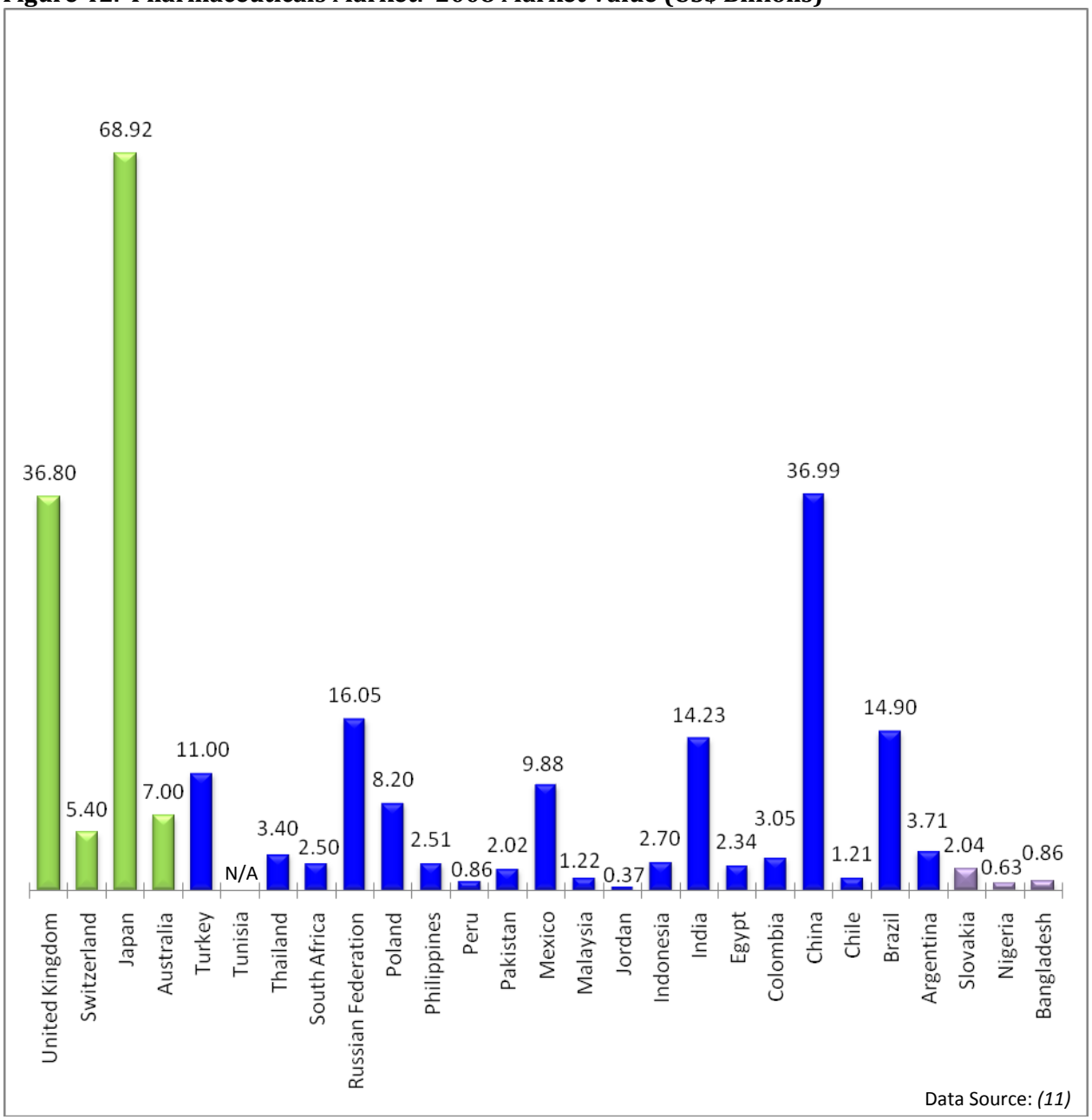


Figure 43. 2008 Market Growth Rate (%, USD)

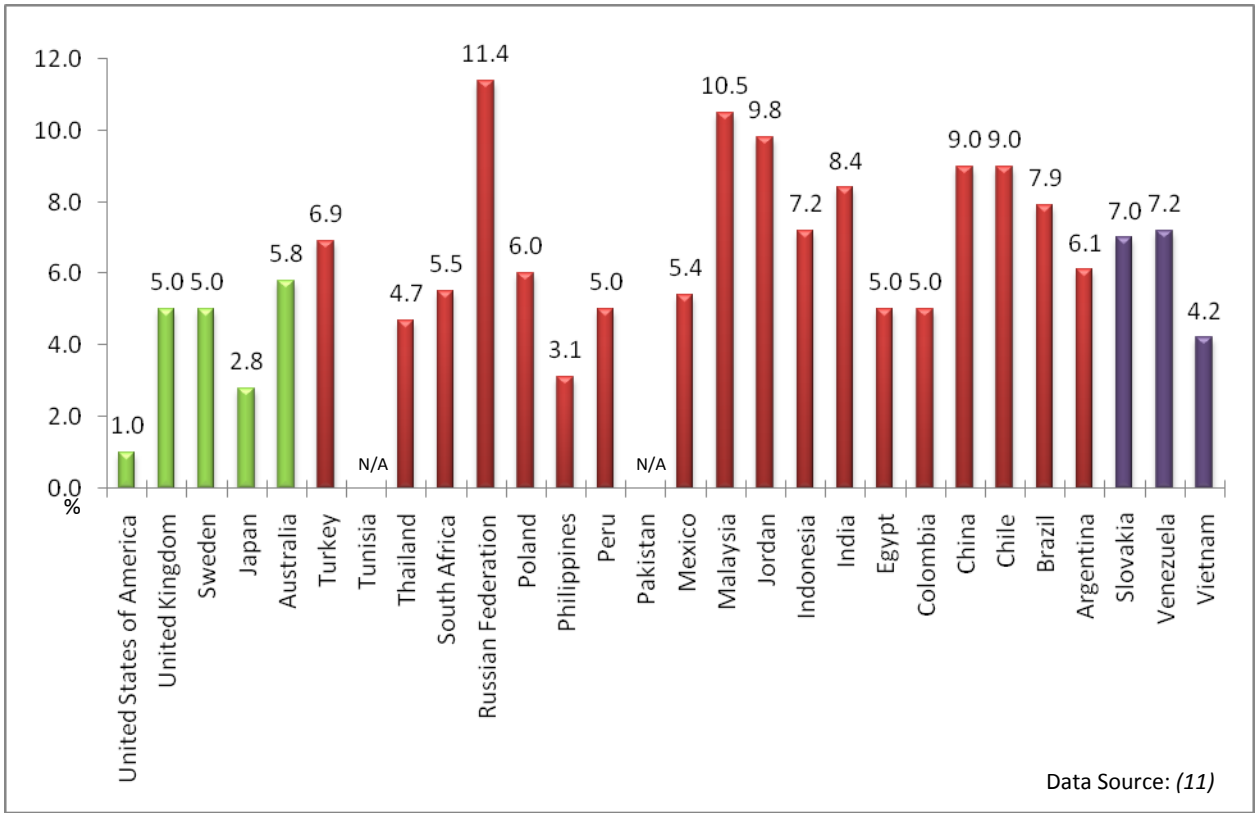


Figure 44. Pharmaceuticals Market: 2008-2013 Forecast Compound Annual Growth Rate (CAGR, %, USD)

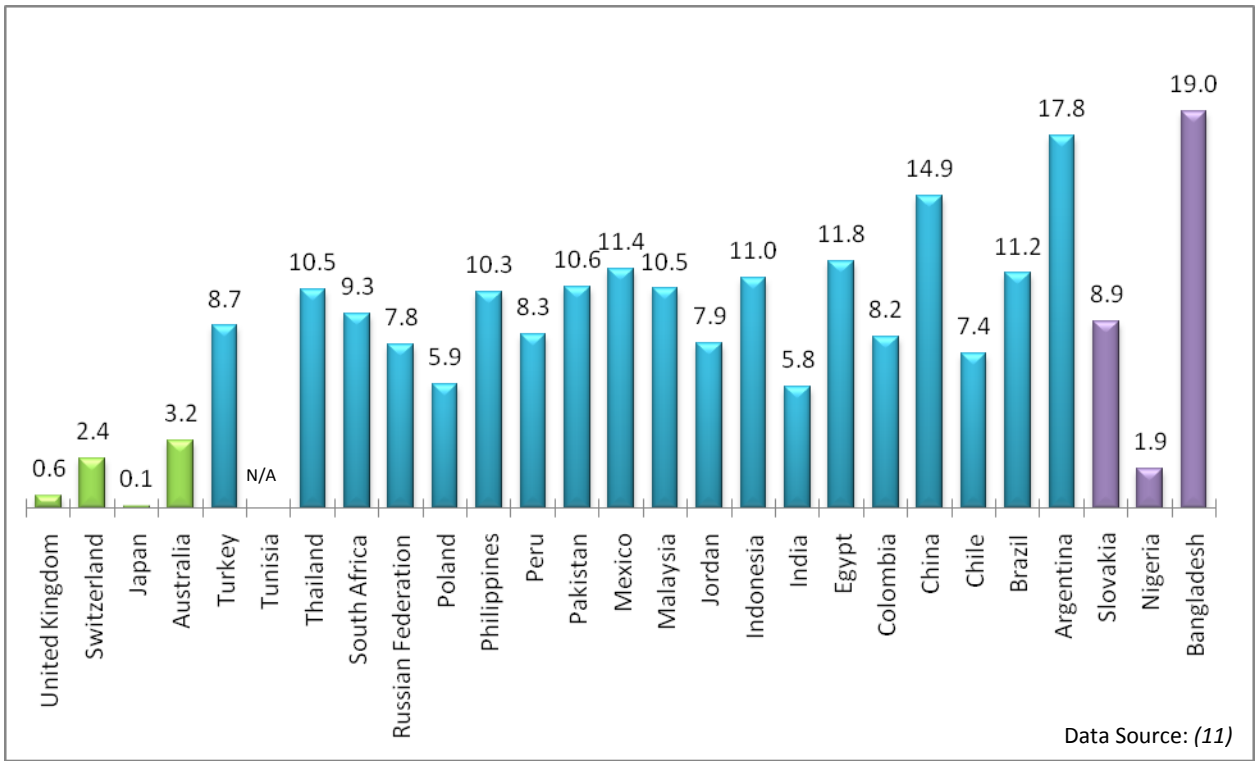


Figure 45. Biotechnology Patents Granted by the USTPO at National Level

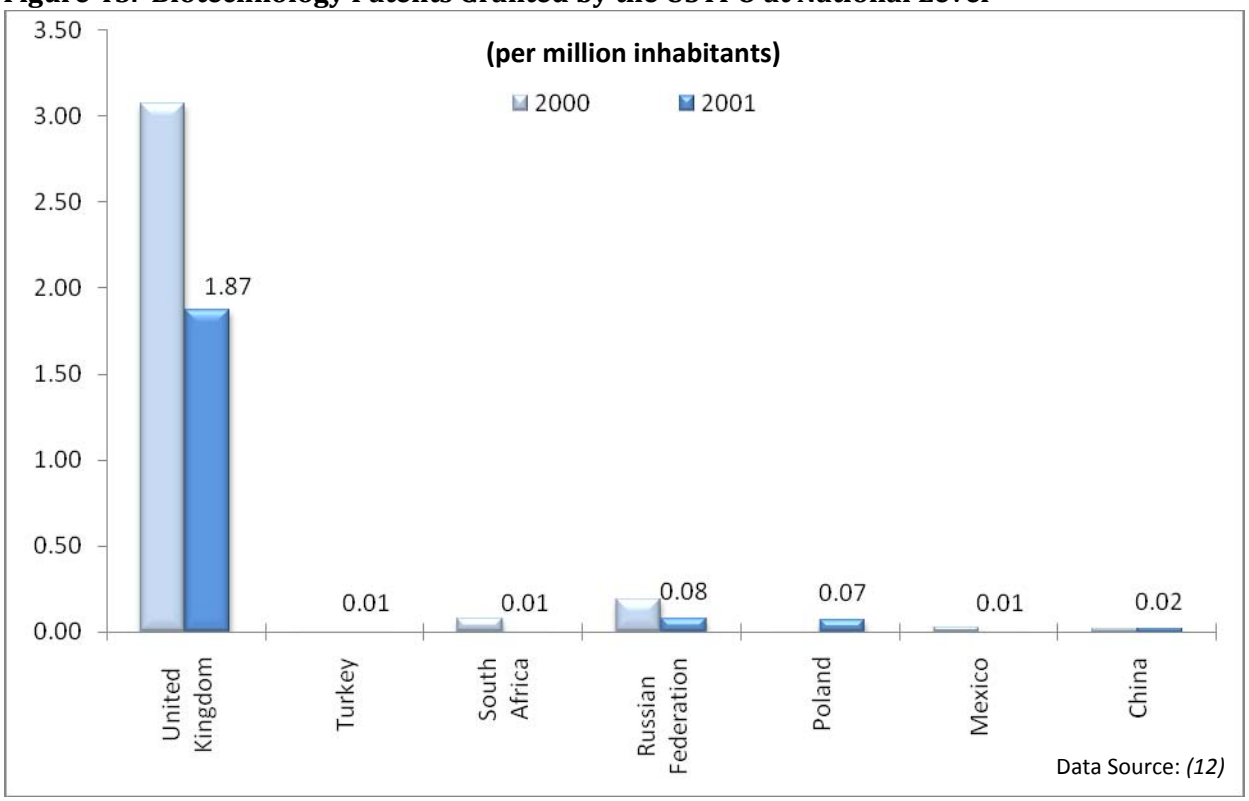


Figure 46. Biotechnology Patent Applications to the EPO at National Level

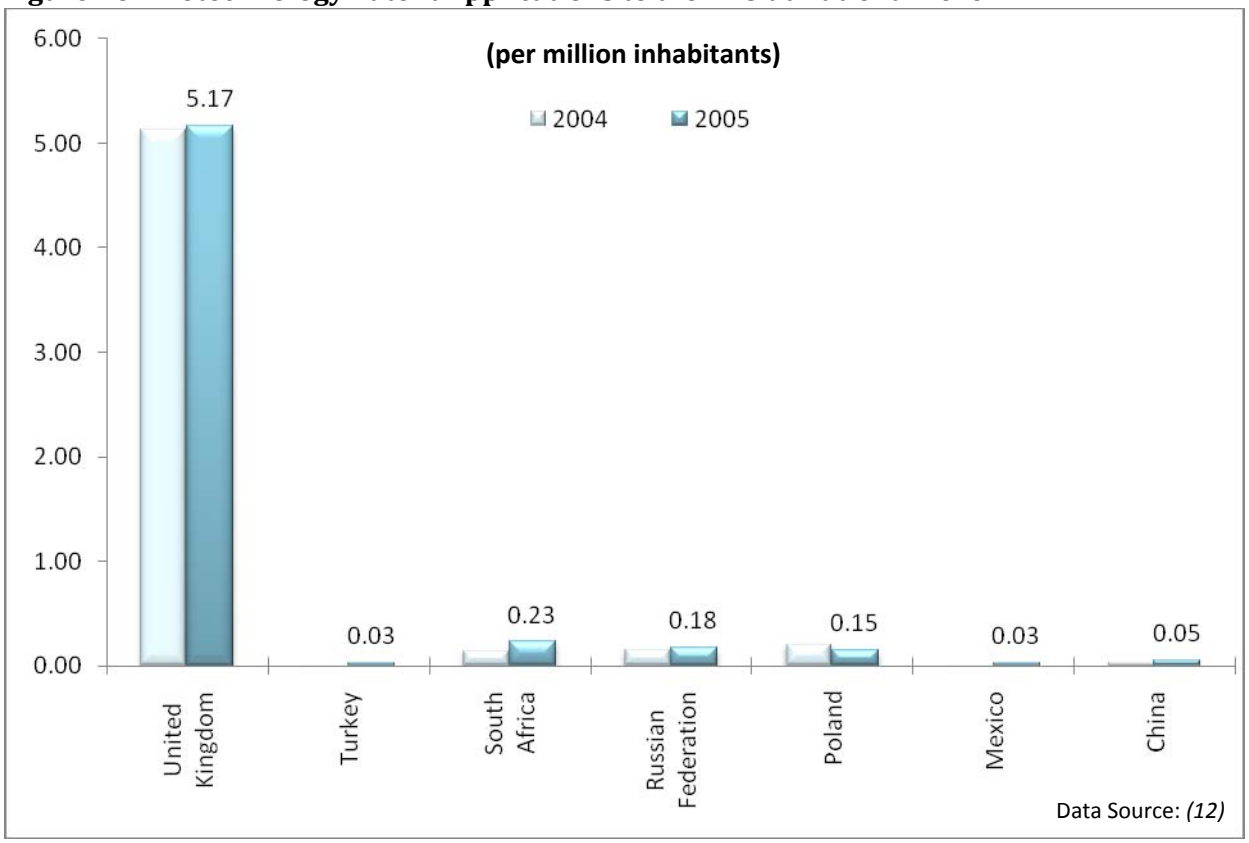


Figure 47. 2006 Pharmaceutical Exports (US$ Millions)

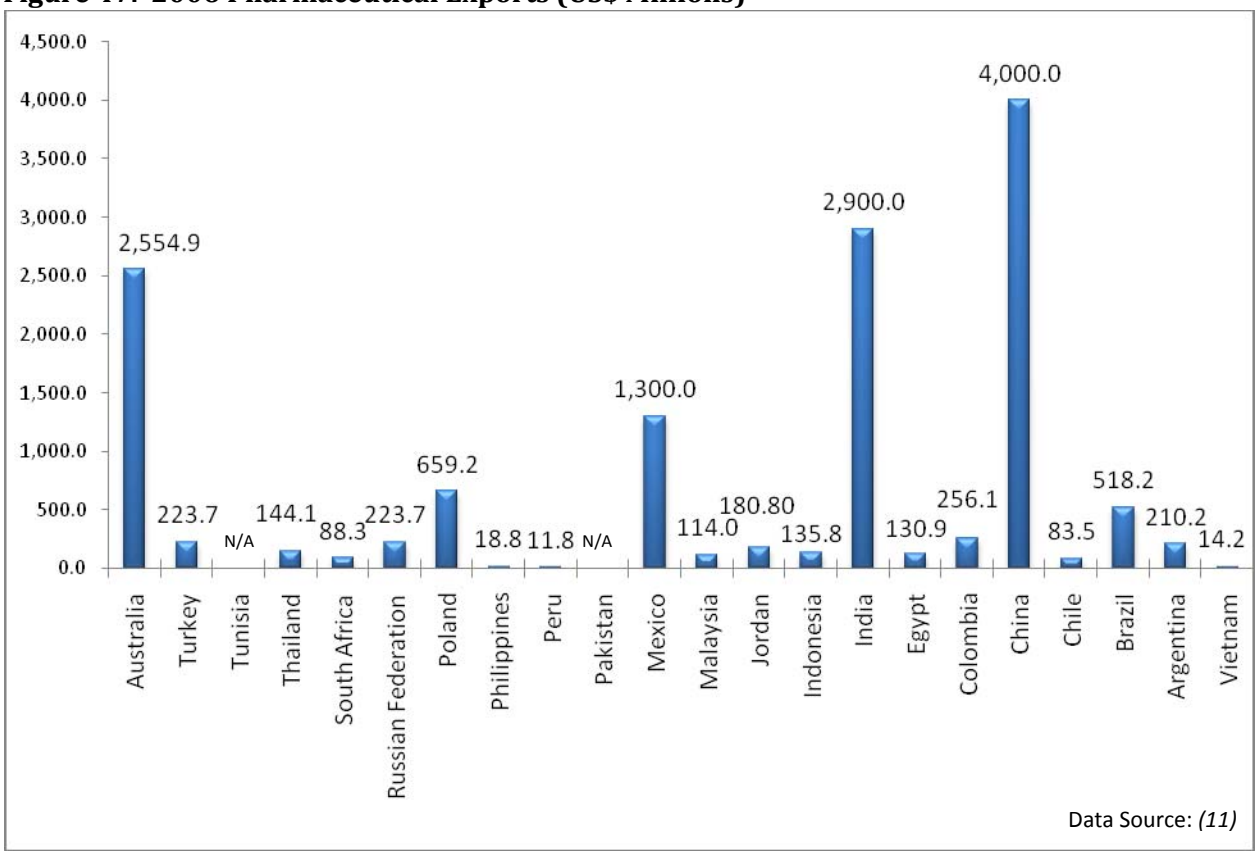


Figure 48. Scientific and Technical Journal Articles

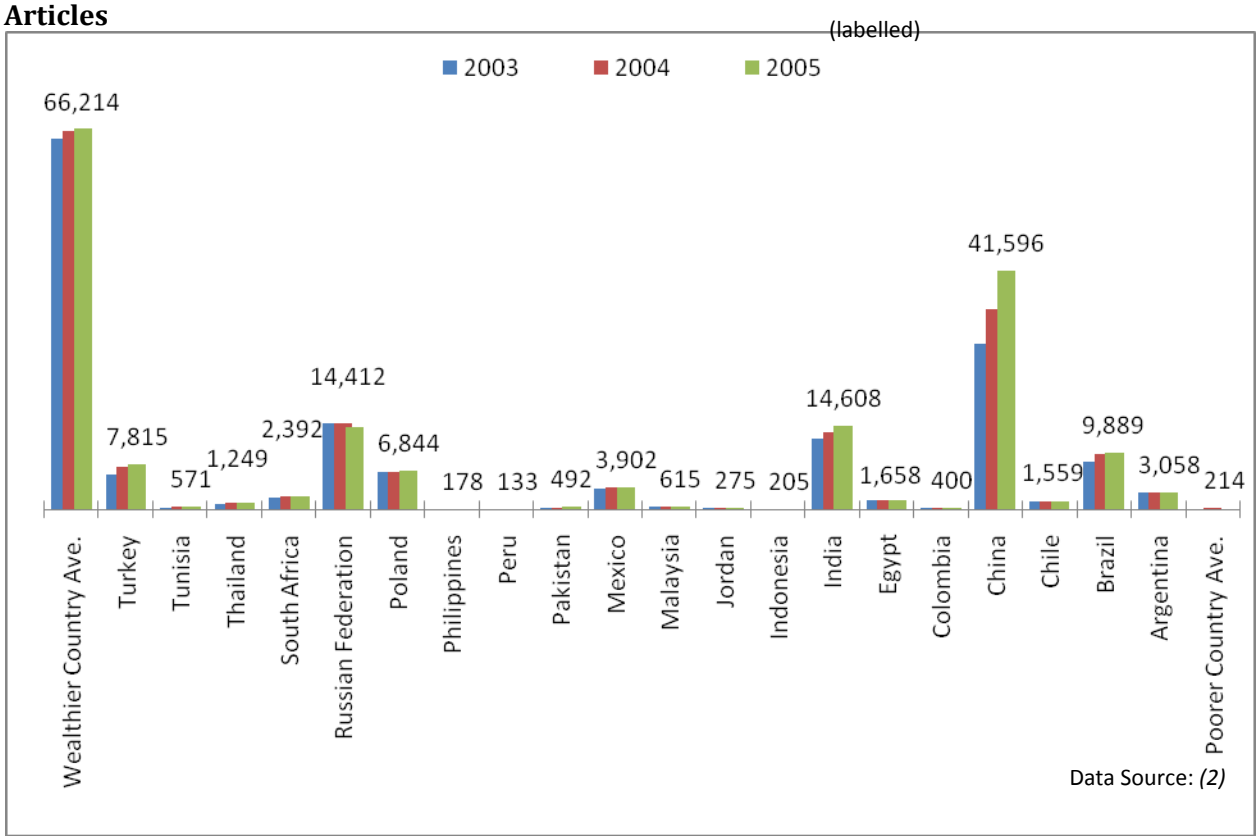


Figure 49. Information & Communication Technology Expenditure (% of GDP)

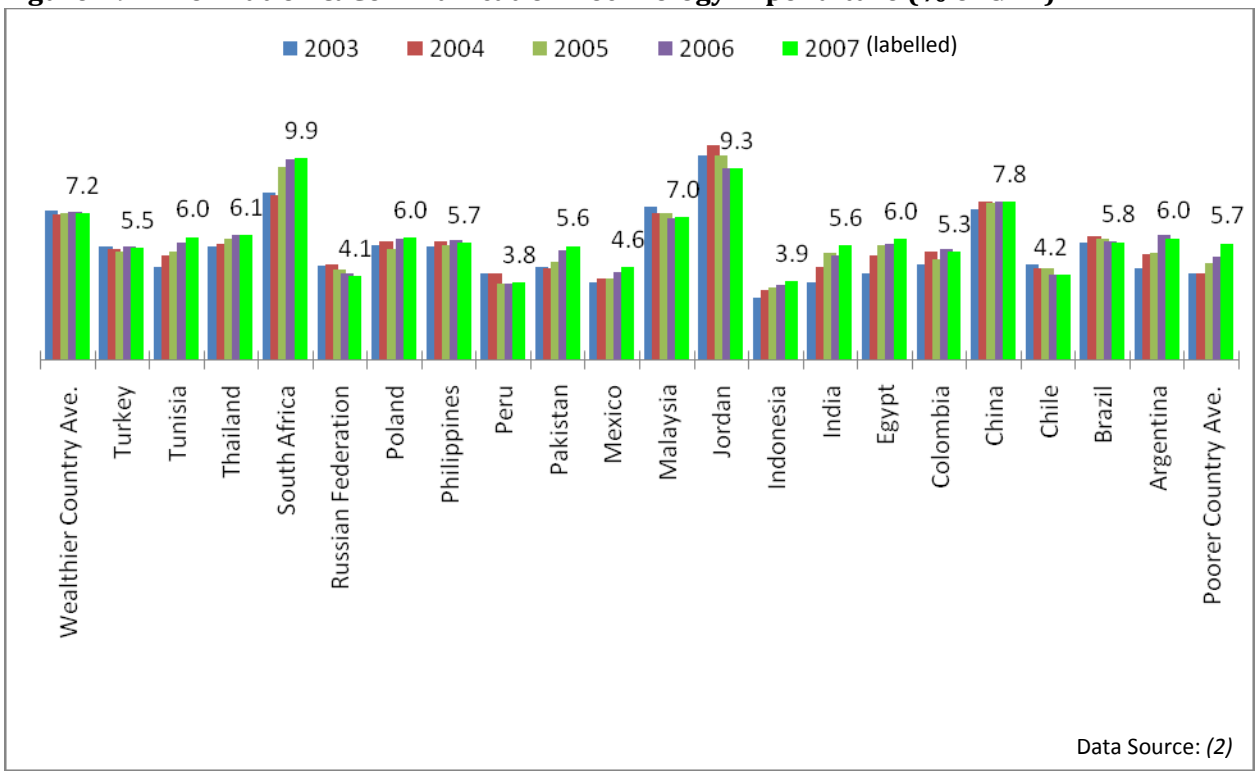


Figure 50. Population Covered by Mobile Cellular Network (%)

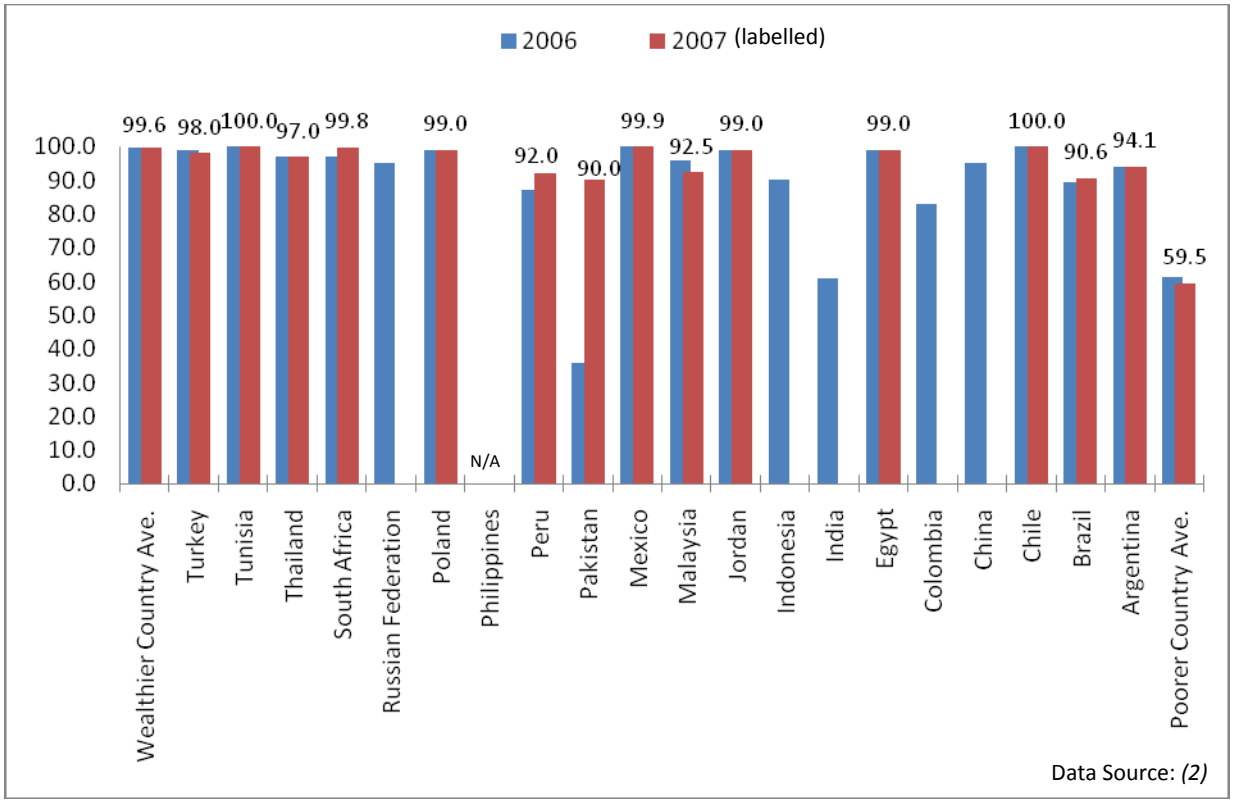
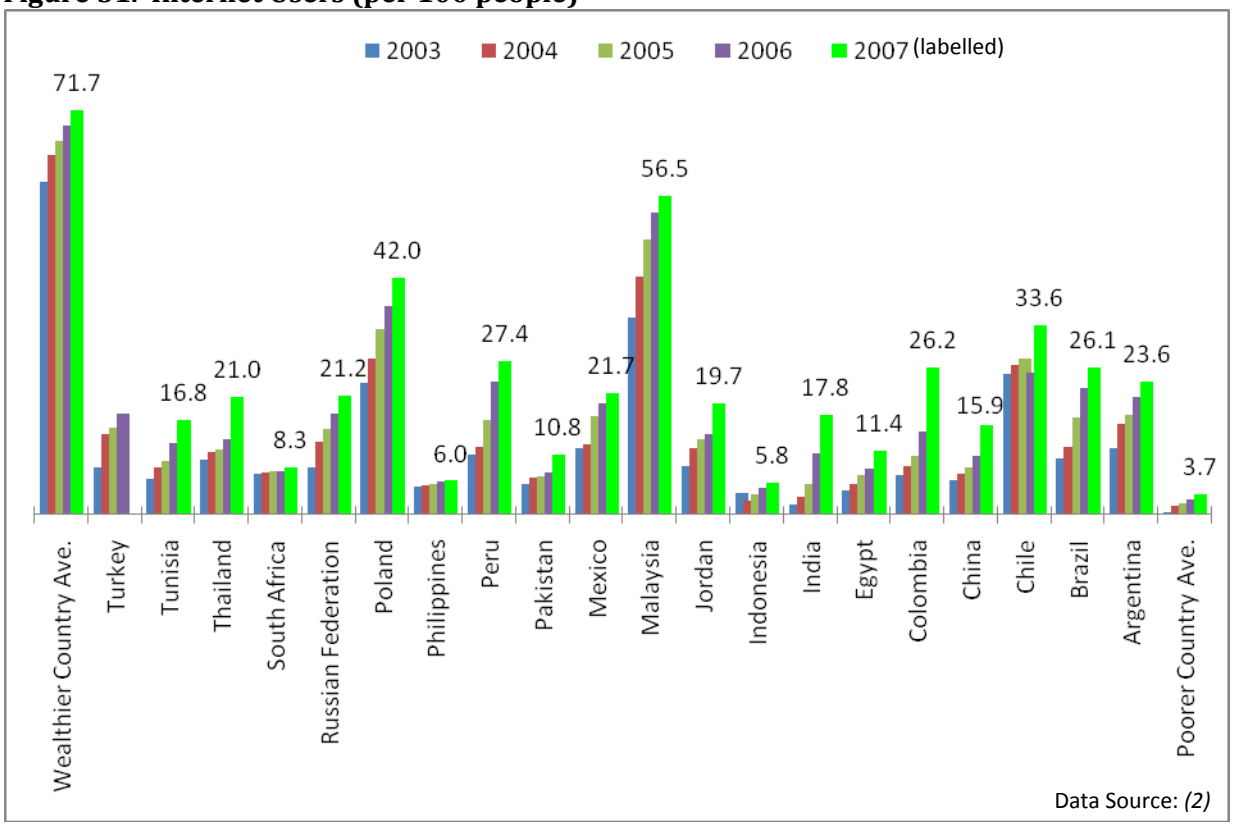


Figure 51. Internet Users (per 100 people)



References

1. WHO World Health Report 2008 – Primary Health Care: Now More than Ever [Internet]. 2008. Geneva (CH): World Health Organization; [accessed 2009 June]. Available from: http://www.who.int/whr/2008/en/index.html
2. World Development Indicators (WDI). 2008. Washington, DC: The World Bank. [Internet]. [accessed 2009 May] Available from: http://web.worldbank.org/WBSITE/EXTERNAL/DATASTATISTICS/0,,contentMDK:20398986~menuPK:64133163~pagePK:64133150~piPK:64133175~theSitePK:239419,00.html
3. WHO National Health Accounts, country pages [Internet]. Updated April 2009. Geneva (CH): World Health Organization; [accessed 2009 July]. Available from: http://www.who.int/nha/country/en/index.html
4. World Health Organization Statistical Information System (WHOSIS). [Internet]. Geneva (CH): World Health Organization; [accessed 2009 July]. Available from: http://apps.who.int/whosis/data/Search.jsp?countries=%5bLocation%5d.Members
5. World Health Report 2006 – Working Together For Health [Internet]. 2006. Geneva (CH): World Health Organization; [accessed 2009 July]. Available from: http://www.who.int/whr/2006/en/index.html. Annex Table 4 Global distribution of health workers in WHO Member States [pdf 167kb]
6. Pan-American Health Organization (PAHO) [Internet]. Washington, D.C.: World Health Organization; [accessed 2009 July]. Available from: http://new.paho.org/hq/index.php?lang=en

7. Davis, I. and Stephenson, E. (2006) McKinsey Quarterly January 2006: Ten Trends to Watch in 2006. [Internet]. Available from: http://www.mckinseyquarterly.com/Ten_trends_to_watch_in_2006_1734
8. Rajan, R.G. (2008) The Future of the IMF and the World Bank. *American Economic Review: Papers and Proceedings,* 98(2):110-115.
9. Pharmaceutical Industry Reports: Global industry report and country-specific industry reports. 2008. Datamonitor [Internet]. Available from: http://www.espicom.com
10. World Generics Market, 2008-2013. 2008. Visiongain [Internet]. Available from: http://www.espicom.com
11. Q1-Q3 2009 Country Pharmaceuticals and Healthcare Reports. 2009. Business Monitor International [Internet]. Available from: http://www.espicom.com
12. EUROSTAT Statistics Database. 2009. European Commission. [Internet]. [accessed 2009 September] Available from: http://epp.eurostat.ec.europa.eu/portal/page/portal/statistics/search_database