Gapminder: Understanding Health through Interactive Statistics

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Health science educators and persons involved in popularizing health among lay persons face a difficult task of reducing ignorance and prejudice using statistics and facts in a simple, easy to understand manner. Gapminder was founded in Stockholm by Ola Rosling, Anna Rosling Rönnlund and Hans Rosling on February 25, 2005 with the mission of fighting devastating ignorance with fact based world views everyone can understand.

Gapminder provides stunning, easily understandable visual data enabling viewers to easily understand the relationship between sanitation, per capita income, nutrition and health. Parameters can be compared across countries, different regions and states of a country and trends over a period of time can be visualized. 'Gapminder world' displays the time series of development statistics for various countries. A recently published book mentions a current trend in the information visualization community is the presentation and sharing of information graphics via the internet [1].

The webpage has been recently redesigned and has been given a more contemporary look. The home page has a link to various video lectures by Dr Hans Rosling and interactive graphs. We especially enjoyed the lectures about the world population and the joy of statistics. The subsection 'Gapminder world' shows interactive graphs on 'Wealth and health of nations', '200 years that changed the world' and 'Asia's rise how and when?' In the 1800s most of the world was poor and life expectancy was around 30 years. In the ensuing 210 years there has been a change in both wealth and life expectancy which is dramatically shown in the interactive graph. The graph allows the viewer to travel backwards and forwards in time or he/she can play the graph watching the fascinating changes in different parameters over time. Each country is shown by a bubble the size of which is proportional to its

population. Different regions of the world are shown by different coloured bubbles.

The data subsection provides a list of various indicators available on the website arranged alphabetically. For each indicator the provider of the data, and the category and subcategory into which the indicator best fits are mentioned and you could examine the data as spreadsheets or visualize the same through interactive graphs. The videos subsection is especially interesting with wonderful presentations by Dr Rosling ranging from 'The river of myths', 'Let my dataset change your mindset', 'Shanghai, New York, Mumbai' among others. Among other videos available are 'Will saving poor children lead to overpopulation?", 'Demographic party trick 1', 'Religions and babies', 'Hans Rosling and the magic washing machine', 'Population growth explained with IKEA boxes', 'Free statistics for democracy', 'Debunking myths about the third world', 'Bangladesh miracle' among others. Graphs about different cancers are also available. Gapminder provides animated statistics for health advocacy and will be especially useful in presenting data in a compelling, interesting manner to those in authority [2,3].

Readers will enjoy the TEDTalks by Dr Rosling. The downloads subsection allows you to download Gapminder World Offline on your computer and use the software without an internet connection and also provides interactive presentations and lesson plans and handouts.
The subsection for teachers helps them use Gapminder in their classrooms and also features resources for teachers. 'Gapminder Labs' is the experimental section with new features, visualizations and tools. The stay tuned section of the website has links to tweets by Hans Rosling, news about Gapminder, and also connects the reader to Gapminder on Facebook and You Tube. Browsers will be interested in the blog highlighting important developments to the website. Gapminder enables viewers, students and teachers to make sense of the complex health and other statistics which have been painstakingly collected over the last three centuries and can be dramatically and effectively used by teachers in the classroom. Dr William Burdick, Vice President for Education at the Foundation for Advancement of International Medical Education and Research (FAIMER) is a keen enthusiast about Gapminder and had effectively used the site during his session exploring the link between health professions education and health. Students in our institution have been using Gapminder to explore and understand the interesting world of statistics. Health educators, health science students and everyone interested in a better understanding of global health and development will find this website and resources absolutely compelling.
The site can be accessed from: Gapminder a fact-based world view. Available from http://www.gapminder.org/

Reference

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2. Rosling H, Zhang.Z. Health advocacy with Gapminder animated statistics. J Epidemiol Glob Health 2011;1:11-4.
3. Rosling HA. Visual technology unveils the beauty of statistics and swaps policy from dissemination to access. Stat J IAOS 2007;24:103-4.