

**Partnership initiative:**

Global Health & Development Chart  
Exploratory phase initiated 2000  
Project launch 2002 at WSSD  
Expected date of completion 2005

**Governments:**

Swedish government  
Statistical Office at several Ministries of Health, such as Mexico, Cuba, Vietnam, National Statistical Bureau of South Africa

**Inter government org.**

WHO

**Major groups:**

Gapminder (a young Swedish IT company)  
Karolinska Institutet & Lund university, major Swedish universities  
Universidade Federal de Pelotas, Rio Grande do Sul, Brazil  
Institute of Public Health, Uganda  
Peoples Health Assembly

**Leading Partner**

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**Main objective**

To improve the use and quality of global development data by creation of two global public goods.

1. A free user-friendly software for compilation, distribution & display of time series of development data in attractive moving graphics.
2. The free provision of development data in a standard format on the Internet by universities, NGOs, national & international agencies, and eventually develop a quality certification system for these data sets.

The relation with Agenda 21 and MDG is that this project will stimulate widespread monitoring of data on the completion of the goals set out in Agenda 21 and more specifically the Millennium Development Goals. The monitoring of data in itself is expected to stimulate the compilation of more complete data of better quality.

**Expected results:**

The first beta version ([www.whc.ki.se](http://www.whc.ki.se)) is now available for testing. It has been promoted by some limited spreading of information in Sweden only. Thus reaching not more than a maximum of 1% of the owners of computers in the world, we have registered around 4000 downloads. It is expected that the software could attain 200 000 to 2 million annual users, stimulating wide spread use, learning and advocacy of numerical data.

**Specific targets and time frame:**

The target group is computer using students activists and professionals around the world that are interested in global sustainable development. The programme provide a better interface for visualisation of time series of data than any alternative that we are aware of, including

Microsoft products. The project will have a gradual impact as it builds on creating a network of users and data providers with a focus on the main UN organisations. Full impact only after 3-4 years. Impact on collection and provision of data with higher quality must be looked upon in a 10 year perspective.

**Co-ordination and implementation mechanism:**

The program is to be distributed with the data sets for the MDGs and users can import their own data for subdivisions of their country or add other data variables. As the program in itself may also be used by organisations and groups to distribute their data we will initiate a process of gradual spread and use. This is in direct contrast to how these data are distributed at present. The data that countries provide free of charge are sold on the CD World Development Indicators by the World Bank for 275 USD and is only bought by 2000 customers.

Funding is provided by the Swedish government for software development and for compilation and provision of basic data sets. The program will then be used by UN organisations and others to provide data that they already produce. Universities will use their existing teaching budgets for its introduction into learning packages. The basic Sida budget will be able to cover the introduction of use of World Health & development Chart in development projects across sectors and regions.

**Arrangements for capacity building and technology transfer:**

This will mainly be achieved by providing this tool and included data sources into exciting courses, advisory and activist work and projects.

Program is free download and to but on and distribute on CD's.

**Links with ongoing sustainable development activities:**

Health system performance analysis at WHO and gradually diffusion to other applications. WSSD would be an optimal opportunity for creating links and the programmes is exceptionally well suited for presentation at an event like WSSD. It will be provided with a brief pamphlet describing the process initiated and including a beta version of the program on business card CD, as well as shown exhibition on walls screen for all participants own use and testing.

**Monitoring arrangements:**

The use will be followed through several mechanisms;

Number of downloads of provided versions with data,

Number of uploads by different organisations that provide additional data

Extent to which it contributes to projects for better quality and regularity of data provision.

Continuously by a users forum for comments and suggestions and Q&A on [whc@ki.se](mailto:whc@ki.se)

**Website:**

[www.whc.ki.se](http://www.whc.ki.se)

# A WORLD DEVELOPMENT CHART

Future potentials of the World Health Chart project  
presented on 14 May 2002 at a meeting between  
Gapminder AB, Malmö, Karolinska Institutet & Sida, and  
the Swedish Minister for International Co-operation and Migration, Jan O. Karlsson

## Our vision:

**To improve the use and quality of global development data  
by creation of two global public goods.**

- 1. A free user-friendly software for compilation, distribution & display of time series of development data in attractive moving graphics.**
- 2. The free provision of development data in a standard format on the Internet by Universities, NGO's, National & International agencies, (Best with a free server solution for the standard data-format.)**

## Background

During the last decades the global flow of information have exploded stronger and faster than anybody predicted. But everything did not change. Updated statistics still has a limited impact on how our common global future is viewed and debated. This is true for activists & politicians, for mass media & the interested public as well as for students & teachers. Most of the data on global development that the publics around the world want to see already exist. The problem is that this data is sold too costly and that it is not accessible in user-friendly software. Another problem is incompleteness of data and that the data partly is of unclear quality. To we are convinced that The first step to improve the situation is to increase the use of existing data. This will start a process that improves 'data quality.

The World Health Chart(WHC) project has formed a team of young Swedish computer programmers, students and researchers. The company Gapminder was formed to recruit students from Lund University for programming the software for World Health Chart. During the last two years the Swedish WHC team has gained considerable insight into how global development data is collected, edited and distributed. The collaboration with WHO is stimulating since this UN organisation has started to collect and edit data on global health development in innovative ways. Since June 2001 a first multimedia like beta version, WHC2001, can be downloaded for testing from [www.whc.ki.se](http://www.whc.ki.se). The team has compiled a built in data set for the beta version. Without much of information 3500 beta testers have downloaded in less than one year. The next version, WHC2002, will be a computer program in which users can import their own data, make bookmarks and slide-shows as well as customise the program for distribution of their own data. WHC2002 will be ready in December 2002.

The data needed to understand global and national development can at present be found in a countless number of formats. These data sets are mainly organised and distributed in yearbooks on paper, CD or pdf-files. At best the data is downloadable as excel files from homepages. The ways data are made available make it difficult to compare countries, social groups and time periods. The reason why even many scholars lack an evidence-based worldview is their lack of access to existing data.

**The world needs a powerful IT-tool for effective exchange and visualisation of existing numerical data on global development.** The World Health Chart software is a step in that direction. This global public good can visualise statistics in ways that make users compare many development indicators from different countries and time periods. When data become easy comparable users ask for more data. Users also start to critically assess data quality, and ask for sources and collection methods. The provision of a free high quality software for powerful display of global development data can start a process resulting in more and better data for a number of different users.

**Why has this not been done?**

## **Limited IT effect on the use of global development data**

Imagine if each hospital employed some mechanics to manufacture its own ambulance. That is how we find that the public sector so far have handled IT in provision of statistical data to the public they serve. Each and every national and international institution has produced some form of IT-tool for distribution and display of the data they produce. In spite of continued IT revolution this way of working has not changed much. We think this mainly is due to the following three reasons:

- 1. The tradition to publish and sell yearbooks is very strong.** This tradition makes agencies keep new IT-tools and data-sets secret until a special release-date. Sales on CD or via the net do not utilise the effectiveness and low cost of free Internet distribution. Lack of extensive beta testing results in difficult interfaces and frequent "bugs" in the software. In contrast, early versions of computer games are gradually release by download from the Internet. The games are thereby exposed to intensive beta testing by the end users and are revised accordingly.
- 2. International and National Public Institutions fail to imagine what they have never seen.** Their IT-tools largely produce digital versions of what already existed on paper. Those in charge of provision of global development statistics do not seem to have enough experience of advanced interactive environments, such as computer games. Computer games have since long been leading the design of computer-interactivity and programming. The commercial game sector leads the interactive-information-design. The game industry hosts the elite of programmers and interaction designers. The cutting edge results are published in the form of the last and most popular computer-games. Playing computer-games is a crucial source of information for anyone who wants to keep updated with the latest findings in interaction design.
- 3. Public agencies need " logo", "data ownership" and "homepage visits".** The UN and international agencies receive development data free of charge from countries. As soon as they have copied and edited the national data sets into one global excel sheet they may consider themselves "owners" of the global data sets. The leading example is "World Development Indicators" that is sold by World Bank. It is a compiled set of 500 variables from all countries and is annually sold on CD for 275 USD (since this month also sold on the Internet). The income finances group competent statisticians that compile the data sets. These qualified professionals do the data quality assessment and editing. Their data sets have achieved a high degree is standardisation of format. Still the World Development Indicators represents "the old ideas" both regarding ownership of data and the cumbersome software included for visualisation. The CD only attracts about 2000 buyers per year. Also in Sweden this CD is not much used.

## **Sweden's potential for implementing the vision**

Sweden is in an optimal position to lead the development of the two proposed global public goods for the following 8 reasons:

1. A strong political commitment to global public goods.
2. A solid policy and long tradition of free provision of statistical data.
3. Skilled young programmers that are highly motivated to produce global public goods.
4. Statistics Sweden (SCB) is already with the "PC-axis" software moving in the proposed direction.
5. Sida has advanced in the IT sector and support public institutions for statistic.
6. Swedish universities are motivated to develop excellence in monitoring global development.
7. Great interest has been expressed to the WHC-team from many potential Swedish partners.
8. The UN ICT task force probably constitute an optimal forum for Sweden to act for development of the two proposed global public goods.

## **Assumptions regarding our vision**

Our vision to create the two global public goods are based on the following 8 assumptions:

1. Understanding time series data is a common need of many; activists, politicians, planners, researchers and decision-makers that want to understand the present and predict the future by looking at the past.
2. Those sharing this need should share the resources; software and data sets. The resources of the IT departments of International and National institutions need to join the freeware culture as already done by Statistic Sweden. If this happens there are already enough resources available in the public institutions of the world to pay for the more powerful IT-tools that the world needs.
3. One of the two proposed global public goods would have little effect without the other. A stepwise simultaneous and very pragmatic development appears as the only realistic way forward.
4. The development of the "free software" mainly requires technical skill using the latest programming tools. In contrast the development of "free data provision and documentation in standard format" will mainly require academic, managerial, diplomatic and political skill.
5. An increased use of development data will stimulate a process that increases the quality of development data.
6. Quality assessment includes systematic documentation on the methods used for data collection and editing for each numeric value. This will enable an estimation of the uncertainty for the numeric value for each indicators, years and country in ways that have started to be developed by WHO. This process constitute an academic challenge regarding development and agreement on methods for handling missing data and methods for systematic estimation of uncertainty ranges.
7. The increased commitments for global governance exemplified by processes behind acronyms like PRSP, SWAP and Global Fund all requires monitoring of the fulfilment of millennium development goals. This development monitoring requires that the quality of development data collection and editing is improved.
8. The free of charge distribution of beta versions and final versions will creat global participation with bug identification, design improvements and other ideas from a global user community.

## Stepwise development of World Health Chart:

The work with WHC has stepwise resulted in a team consisting of the IT design & programming Company Gapminder, student testers and researchers at Karolinska Institutet and Lunds university as well as interested staff at Sida. The main steps in the project has been:

1997	Feb	Global Health Chart on paper at KI
1998	March	World Health Chart idea!
1999	Jan	First prototype of "Historical World Health Chart" by Ola Rosling in Gbg
	Nov	World Health Chart project started with WHO funding (0,25 million SEK)
2000	Jan	Gapminder, Malmö, formed for design and programming
	May	Agreement with WHO, KI and Lund University
	June	First contract with Sida for 2000+2001 (1,6 million SEK)
2001	June	WHC2001 ready for public beta-testing ( <i>multimedia version</i> )
	July	Second contract with Sida for 2001+2002+2003 (3,8 million SEK)
		WHC2002 design and programming starts
2002	May	WHC2002 ready for first beta testing
	Sept	WHC2002 ready for public beta testing
	Dec	WHC 2002 to be ready for promotion by WHO ( <i>computer program version</i> )
2003	Jan	Planed presentation at World Social Forum in Porto Allegre

## Options for the future

The vision presented in this paper need thorough discussion with a wider group in Sida and at SCB and other Swedish experts. Perhaps the best would be to form a reference group including Swedish representative to UN ICT task force. This should be done with relatively high speed since the momentum otherwise will be lost. If Sida can release the funds allocated for 2003 during 2002 a well functioning WHC2002 version will be produced until December 2002. Thereafter we foresee two main ways to proceed during 2003. One of the below listed options does not exclude the other. The first option is to focus on Swedish partners in order to initiate the upload process within Sweden. The second is to directly focus on international partners.

<b>2003</b>	<b><u>OPTIONS IN SWEDEN</u></b> <b>Swedish language version for school-teachers, together with SCB</b> <b>Swedish universities upload of Historical and WORLD data on test server</b> <b>SCB, Sida and Swedish National Agencies upload data on test server</b>
<b>2003</b>	<b><u>OPTIONS IN THE WORLD</u></b> <b>Visualise Global Development Goals</b> <b>Child mortality source and quality revision</b> <b>HIV/Aids data revisions</b> <b>Adoption to WHO languages</b> <b>National charts: Grafico de Saúde do Brazil, Uganda Health Chart, etc</b> <b>Co-ordinate WHO, UNICEF, OECD, WB &amp; UNDP to upload in standard format ?</b>
<b>2004</b>	<b>NEW PLANNING BASED ON 2003 EXPERIENCES</b>

A successful progress depends on good co-ordination between funding and the implementing partners. The World Health Chart projects managerial structure has worked relatively well during the first years. Karolinska Institutet has a contract with Sida and transfers funds to Lund University and pay Gapminder against invoices. However a changed of project structure may be better for future development towards implementation of the World Chart vision. Such change of the managerial structure should be considered. The project should probably continue to be based on the following principles:

- Clear goals and plans should be done for each year, but no rigid plans for more than one year
- Separating but co-ordinating the design & programming task from the data set task
- Intensive software testing at different levels and in different groups
- Active information about the project and promotion of the use of the software
- Choosing partners in Sweden and the World that spontaneously suggest collaboration
- Active future involvement of Sida and the Government for shaping national & international network especially through the UN ICT task force.

## **Possible results in 3-5 years time**

We fully realise that our vision is very far reaching. Success depends on combined political, diplomatic, managerial, academic and technical skill as well as on sufficient funding. Most important for success is to produce an excellent software. The hope for software excellence is not based on that involved programmers are though to be geniuses. The hope is just that some highly motivated and sufficiently capable young programmers using the latest programming tools can do what none has done before in this field. Their absence of profit interest will improve creativity. The hope is also that the Universities, as well as National and International Agencies will start to provide free of charge data sets with sufficient source documentation for new forms of estimation of data uncertainty.

If we manage the results in 3-5 years can be that:

- 1. A new software for attractive display of development data is used through out the world.**
- 2. Organisations provide statistics in standard format for display with this software.**
- 3. Use of global development data for teaching, advocacy and analysis has multiplied.**

Thoughts summarised by

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