



**IPUMS-International:
Creating Statistically Literate Global Citizens—
the use of integrated census microdata in teaching**

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**for additional details, please see:
ipums.org/international**



Outline

no. of slides

- 1. What is IPUMS-International?**
Integrated census samples **6**
- 2. World population problems: the course**
 - a. Population profile assignments**
 - b. Learning outcomes** **6**
- 3. Conclusions and an Invitation**
58th ISI (Dublin), Aug 21-26, 2011 **2**



What is IPUMS-International?



IPUMS-International Objectives

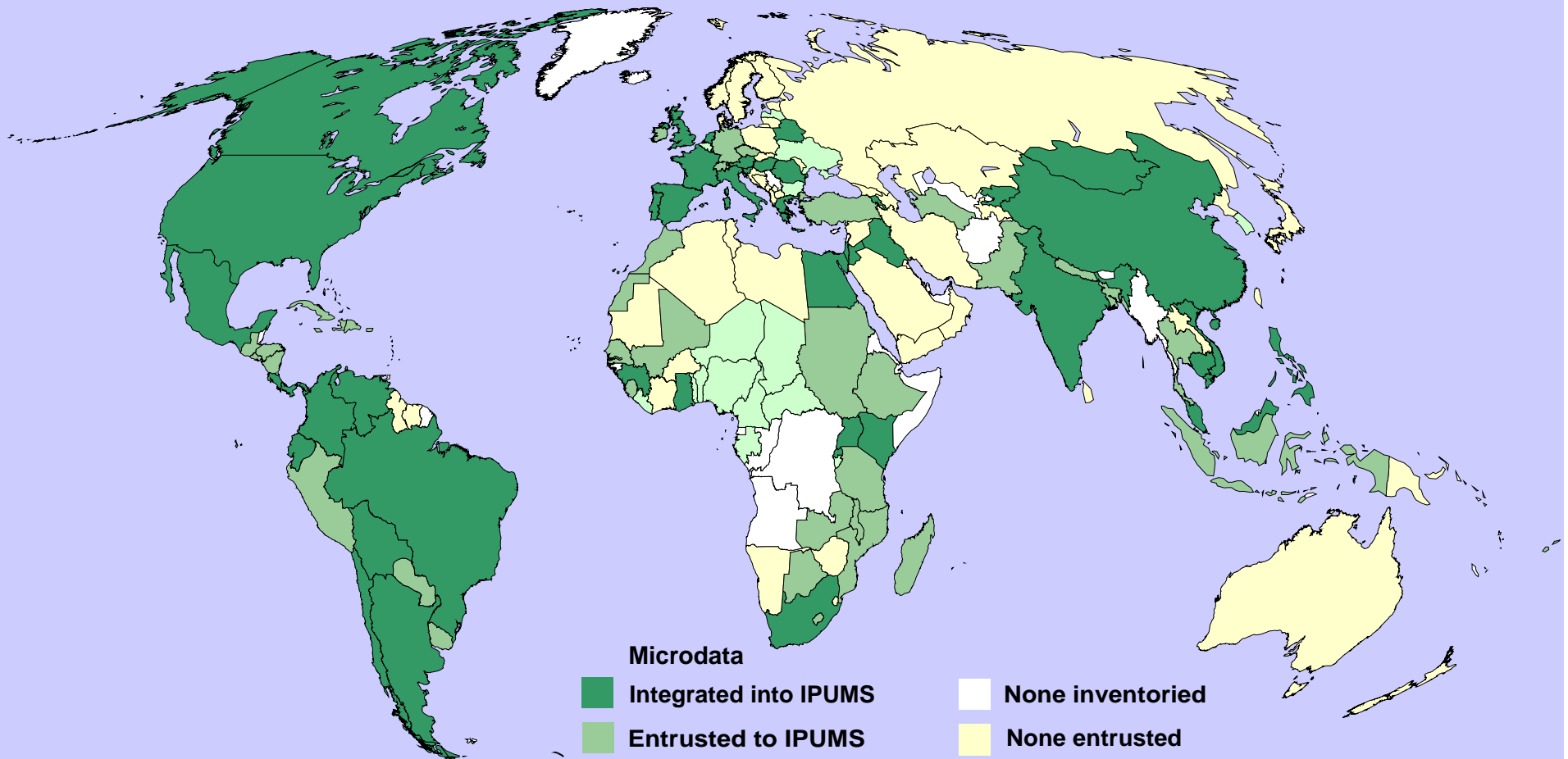
- 1. Recover and preserve census microdata and documentation for all the countries in the world**
 - 2. Integrate microdata and metadata**
 - 3. Disseminate—without cost—extracts of samples to bona-fide researchers worldwide, regardless of country of birth, citizenship or residence.**
- » **Sustained, major funding 1999-2015 by:**
- » **National Science Foundation (USA)**
 - » **National Institutes of Health (USA)**

IPUMS-Global

dark green = integrated and disseminating

(44 countries, 130 censuses, 279 million person records)

light green = to be integrated (35 countries, 90 censuses, 150 mill.)





Members of the IPUMS team May 14, 2009



(Not present: computer gurus, some researchers, research assistants, civil service employees, and others who were at the National Science Foundation Board meeting)



IPUMS Milestones

- » **1995: IPUMS-USA first release of integrated microdata**
IPUMS-USA continues: 1850-2000 + ACS samples
- » **1999: IPUMS-International funded**
- » **2002 - 1st International launch: 7 countries.**
- » **2008 launch: 35 countries, 111 censuses**
- » **2009 launch: 44 countries, 130 censuses**
 - » ~279 million person records
 - » Three thousand users

And beyond:

- » **2011 launch (58th ISI): ~60 countries, ~170 censuses**
 - » ~350 million person records
 - » Five thousand users



Benefits

- ▶ ***Recover*** historical census data and documentation
- ▶ ***Archive*** data and documentation to the highest international standards
- ▶ ***License*** samples and documentation in a global initiative
- ▶ ***Anonymize*** microdata to highest international standards
- ▶ ***Integrate*** samples according to national practices *and* international principles
- ▶ ***Disseminate*** microdata with minimal risk and maximum benefit, at no cost
- ▶ ***Promote*** transparency and equitable access
- ▶ ***Facilitate*** highest quality research and fact-based policy making
- ▶ ***Increase*** stakeholders and use of census data



IPUMS dissemination plan, 2010-2014 samples for 44 countries integrated now, 80 soon

- ▶ **Europe 12 completed, 5 soon**
 - ▶ **Completed (12):** *Austria, Belarus, France, Greece, Hungary, Italy, Netherlands, Portugal, Romania, Slovenia, Spain, UK*
 - ▶ **Soon (5):** *Czech Republic, Germany, Ireland, Switzerland, Turkey*
- ▶ **Americas 12:12**
 - ▶ **Completed (12):** *Argentina, Bolivia, Brazil, Canada, Chile, Colombia, Costa Rica, Ecuador, Mexico, Panama, USA, Venezuela*
 - ▶ **Soon (12):** *Cuba, Dominican Republic, El Salvador, Guatemala, Honduras, Jamaica, Nicaragua, Paraguay, Peru, Puerto Rico, Saint Lucia, Uruguay*
- ▶ **Africa 7:13**
 - ▶ **Completed (7):** *Egypt, Ghana, Guinea (Conakry), Kenya, Rwanda, South Africa, Uganda*
 - ▶ **Soon (13):** *Botswana, Ethiopia, Madagascar, Malawi, Mali, Mauritius, Morocco, Mozambique, Senegal, Sierra Leone, Sudan, Tanzania, Zambia*
- ▶ **Asia 13:7**
 - ▶ **Available (13):** *Armenia, Cambodia, China, India, Iraq, Israel, Jordan, Kyrgyz Republic, Malaysia, Mongolia, Palestine, Philippines, Vietnam*
 - ▶ **Soon (7):** *Bangladesh, Fiji, Indonesia, Nepal, Pakistan, Thailand, Turkmenistan*



World Population Problems: The Course

Course Objectives

- 1) Provide demographic facts about the world.
- 2) Explain how social, economic, and cultural factors produce demographic outcomes.
- 3) Understand basic theories to explain relationship between population and society.
- 4) Discuss implications of population issues for the world.

Students

- 55 undergraduate students
 - 15 first- and second-generation immigrants
 - 3 foreign students
- Students assigned a new identity
 - Different country, year, age, gender

Population Profile Assignments

- 2 profile papers, 1 poster
 1. Health and mortality paper
 - Living conditions assessed using IPUMS
 2. Fertility and Family paper
 - Marital status, number of children, families per household from IPUMS data.
 3. Population Profile Poster
 - Work in groups of 4 with from same country; different genders, ages, years.
 - Profile the population in the country.



Iraq: A Profile of Health and Mortality in the Country from 1960-2000

SOC 3511 World Population Problems, University of Minnesota

RESEARCH QUESTION

What was the health and mortality situation for people living in Iraq from 1960 to 2000?

METHOD

We collected information from various government and non-government websites about the health and mortality situation in Iraq from the years 1960 to 2000. We obtained data from the Integrated Public Use Microdata Series (IPUMS) as well as the United Nations website, and SPSS to create graphs in order to better illustrate the trends.

BACKGROUND

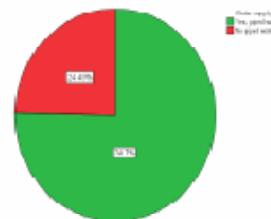
- In 2000 in Iraq the top ten leading causes of death are mostly related (World Health Organization)
- Between 1958 and 1979, the Iraq government changed its rule 5 times (BBC Timeline Iraq). In general, political instability places serious obstacles in the way of a country's ability to look after such important health aspects as sewage, sanitation and running water.
- Following the 1979 installation of Saddam Hussein as President, Iraq faces serious military conflict including the Iran-Iraq War, the Invasion of Kuwait, chemical attacks on Kurds, the Gulf War, Desert Storm and operation Desert Fox (BBC Timeline: Iraq).

Sources

A special thanks to Charlot Meyer for making this poster possible as well as the Minnesota Population Center for offering their resources.
 Story from BBC NEWS: http://news.bbc.co.uk/1/hi/14414/middle_east/country_profiles/151483.stm
 Published: 2000/02/13 14:57:00 GMT © BBC BM/DC
 * Country Page: Iraq, World Health Organization Web 13 Apr 2009. <<http://www.who.int/infobase/report.asp?rb=111&iso=IRQ>>.
 United Nations-World Population Prospect
 Integrated Public Use Microdata Series (IPUMS)

HEALTH AND MORTALITY DATA

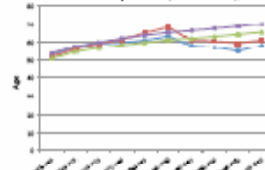
Water Supply Distribution in Iraq (1997)



Sewage Distribution in Iraq (1997)

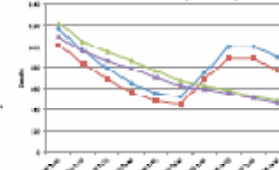


Life Expectancy at Birth by Sex



- Life Expectancy at Birth by sex: Medium variant, 1960-2010
- Source: United Nations-World Population Prospect

Infant Mortality Rate by Sex



- Infant Mortality Rate by sex (Infant deaths per 1000 live male/female births), 1960-2010
- Source: United Nations-World Population Prospect

Specific Profiles

Males Age 10

This male in particular lived between 1987 and 1997 when roughly 70% of the population had access to proper sewage and 30% did not. Therefore, males of age 10 at this time had a 30% chance of coming in contact with communicable diseases. (BBC Timeline: Iraq).

Males Age 22

In 1997, when the country was going through its worst moment, the numbers for 22-year old males were very similar to the total population, 23.6% without piped water, 26.6% without access to sewage and 7.9% without toilet.

Females age 24

In 1990, concurrent with the rest of the population, Crude Death Rate and Infant Mortality skyrocketed as EO dropped. The percentage of women with access to piped water and sewage is comparable to the general population in 1997.

Females age 37

This profile's life expectancy, 49.4, was comparable to the life expectancy of other women in the world born in 1960, 50.6. There was a 25% chance she wouldn't have had piped water and a 25% chance of not having some sort of sewage system or septic tank.

RESULTS

- ~1/4 of the population does not have access to piped water and/or sewage
- Clean water, separate from waste, is important in protecting against communicable diseases, especially in infants
- EO is increasing and Infant Mortality Rate is decreasing until ~1990; this coincides with the Gulf War and multiple attempted invasions
- Compared to the rest of the world, Iraq is "healthier" until a reversal in 1990

CONCLUSION

Iraq's health and mortality are improving (high EO, low Infant Mortality), and are better than the world as an average, until the political upheavals and wars beginning ~1990. At this point the situation reverses as Iraq experiences a dramatic decline in EO and steep increase in Infant Mortality, among other indicators. In 1997 an out of 25% of the Iraqi population does not even have access to sewage or clean piped water. This is none other-world standard!

Learning Outcomes

- 1) Become expert on a different country.
- 2) Learn how history and geography shape population issues.
- 3) Develop **statistical literacy**.
- 4) Become better global citizens.



Invitation to cooperate



Invitation to cooperate

- » **Formalities, endorse:**
 - » **IPUMS Memorandum of Understanding**
 - » **Purchase order**
- » **Entrust, for each census:**
 - » **Documentation: questionnaires, instruction manuals, codebooks, etc.**
 - » **Microdata**
- » **Payments**
 - » **License fee: \$5,000 per census**
 - » **Data recovery: 1980s? ...bytes (tapes, cartridges), codebooks?**
- » **Integration: MPC**
- » **Dissemination: 2012? 2013? 2014?**
- » **Partnership: as long as mutually beneficial**



IPUMS at the 58th ISI (Dublin, Aug 21-26, 2011)

<http://www.isi2001.ie>

ISI 2011



Home

About the ISI

About the CSO

Organising Committee

Scientific Programme

Registration

About Dublin

It is with great pleasure that I invite you to the 58th Session of the International Statistical Institute, which will be held in Dublin in August 2011. Ireland is a unique destination, noted for its hospitality, and is guaranteed to offer delegates a creative and memorable experience. Dublin itself is a modern and vibrant city with a long and proud history and has a wonderful array of venues and activities to enjoy. It is also our intention to offer a dynamic Social Programme to allow you to sample our rich culture and heritage.

I look forward to extending the traditional Irish Céad Míle Fáilte (one hundred thousand welcomes) to you all to Dublin in 2011 and sincerely hope that you will take this opportunity to visit us on the occasion of the 58th ISI

- ▶ **IPUMS Workshop**
- ▶ **Microdata session**
- ▶ **IPUMS Funding for delegates from developing countries**
- ▶ **IPUMS booth**



Thank you!!

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