ICD
International Classification of Diseases

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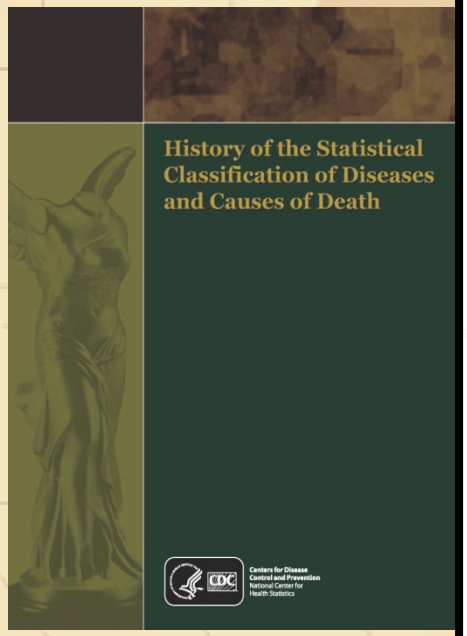
August 7, 2012

What is the ICD?

- International standard maintained by WHO
- WHO Nomenclature Regulations require use by WHO Member Countries
- Promote international comparability in collection, classification, processing, and presentation of health statistics

Expansion over time

- Originally, tool to group cause of death for presentation in tables and research
- Use and content expanded over time
- Yet, ICD is not always enough to meet morbidity needs



MORTALITY 1900-1904

COUNTRY.	NUMBER OF DEATHS FROM SMALLPOX PER 100,000 OF POPULATION: 1900 TO 1904.				
	1900	1901	1902	1903	1904
Registration area of United States	1.9	3.5	6.6	4.3	2.1
England and Wales	0.3	1.0	7.5	2.3	(1)
Scotland	1.0	6.0	2.0	1.0	(1)
Hungary	4.0	4.0	2.0	1.0	(1)
Belgium	3.0	4.0	9.0	23.0	(1)
Spain	35.0	28.0	30.0	(1)	(1)
Italy	1.0	10.0	7.0	18.0	(1)

[1] No figures available.

Closely related but not the same, US example

ICD:

- Parent classification
- ICD is used for mortality purposes in the US
- Maintained and coordinated by WHO in conjunction with Collaborating Centres

ICD-CM:

- CM is a clinical modification of the classification
- ICD-CM used for morbidity purposes in the US
- Maintained by the US but coordinated with WHO

ICD revised periodically

- To reflect current knowledge and needs
- Need to mention 3 revisions when considering where WHO, US mortality, and US morbidity communities are today:

US morbidity summary

- Continues to use ICD-9-CM but has a freeze on most updates
- ICD-10-CM developed and was at precipice of transitioning in 2013
- Participating in effort to develop ICD-11

Details: What's happening?

- Working towards implementation
  - Previously would have implemented on a similar timeframe as mortality
  - Enactment of HIPAA in 1996 put morbidity coding standards on a different timeline
  - Developed ICD-10-CM in late 1990's
  - Were current with ICD-10 updates until code freeze in October 2011

The implementation date

- Implementation is tied to legislation and reimbursement requirements
  - Final rule in Federal Register mandates compliance by October 1, 2013
  - However in April of 2012, there was a notice in the Federal Register proposing delay of the compliance date until October 1, 2014
- So, the implementation date in the US is still unknown

Debates about implementation

Benefits:

- Address problems associated with older revision
- Better data for many purposes
  - Allows more specificity
  - Has more room for expansion
  - Uses more current concepts
  - Captures more clinical information
  - Permits improved coding
- Easier to compare with mortality data
- Many ready for transition
- Facilitate adoption of future revision

Costs:

- Many not ready for transition (seems to include many small providers)
- It takes considerable resources to switch
- Some question cost/benefit balance when another revision is on horizon

Preparing for implementation

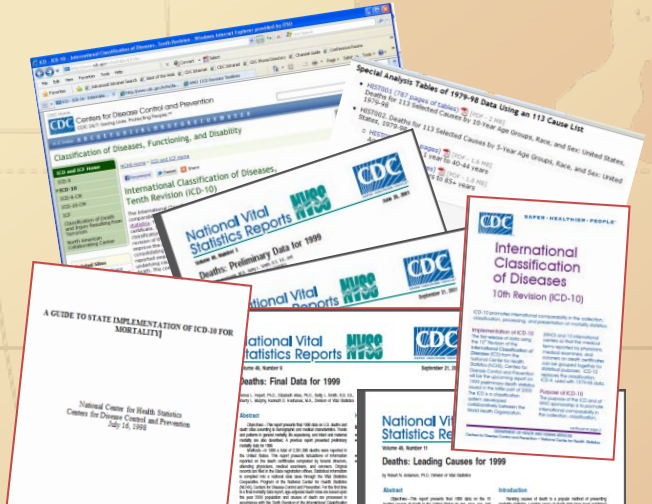
- HHS continues to assist those implementing the code sets (e.g., files, guidelines, general equivalence maps, webinars)
- HIM and other training programs conducted
- Organizations assess how impacted, make plans, set goals, and test
  - Systems
  - People
  - End users
- Stakeholders keep moving forward regardless of what's happening with compliance date

US mortality summary

- Have been using ICD-10 for more than a decade
  - Transition receding into memory
  - ICD-10 updating process continual challenge
- Some involved in developing ICD-11 but most focused on ICD-10 with ICD-11 off on horizon

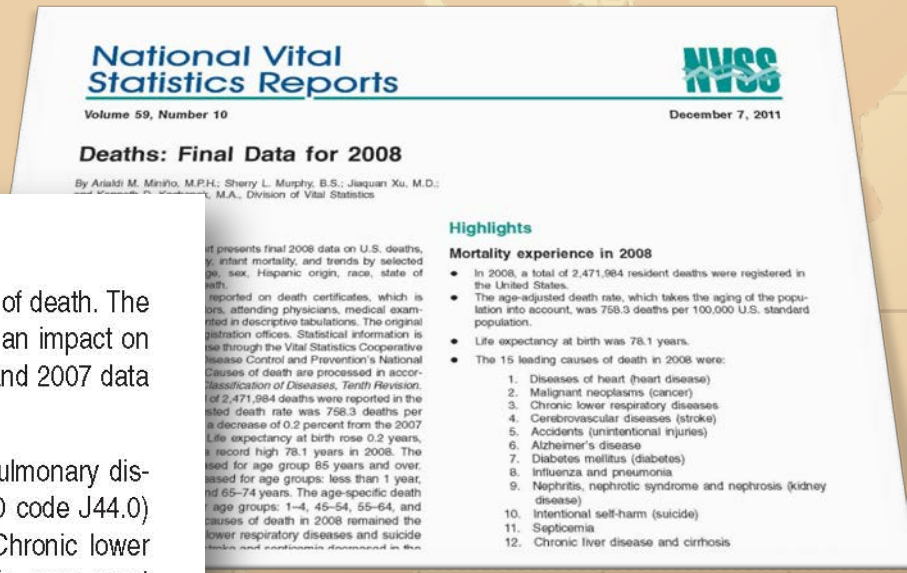
Memories of ICD-10 implementation

- US mortality implemented in 1999
  - Extensive preparation in advance
    - Convert automated systems
    - Conduct training
    - Convert tables
    - Coordinate with state programs
  - Implementation generally smooth but preliminary data release slower



Since implementation

- ICD-10 included updating feature which US mortality has been doing since 1999 also
  - Innovation & challenge
  - Requires resources
  - Affects statistical trends



National Vital Statistics Reports

Volume 59, Number 10 — December 7, 2011

Deaths: Final Data for 2008

By Arialdi M. Miniño, M.P.H.; Sherry L. Murphy, B.S.; Jiaquan Xu, M.D.; ..., M.A., Division of Vital Statistics

Highlights

Mortality experience in 2008

- In 2008, a total of 2,471,984 resident deaths were registered in the United States.
- The age-adjusted death rate, which takes the aging of the population into account, was 758.3 deaths per 100,000 U.S. standard population.
- Life expectancy at birth was 78.1 years.
- The 15 leading causes of death in 2008 were:

1. Diseases of heart (heart disease)
2. Malignant neoplasms (cancer)
3. Chronic lower respiratory diseases
4. Cerebrovascular diseases (stroke)
5. Accidents (unintentional injuries)
6. Alzheimer's disease
7. Diabetes mellitus (diabetes)
8. Influenza and pneumonia
9. Nephritis, nephrotic syndrome and nephrosis (kidney disease)
10. Intentional self-harm (suicide)
11. Septicemia
12. Chronic liver disease and cirrhosis

comparability of data between years for selected causes of death. The implementation of changes in coding rules in 2008 had an impact on several mortality causes—and the comparison of 2008 and 2007 data for these causes—in the following ways:

- The increase in deaths from Chronic obstructive pulmonary disease with acute lower respiratory infection (ICD–10 code J44.0) is a component condition of the larger category Chronic lower respiratory diseases (ICD–10 codes J40–J47). This component condition (ICD–10 code J44.0) increased as a proportion of all deaths from Chronic lower respiratory diseases between 2007 and

- Otherwise, mortality is in a stable place in continual evolution of ICD

WHO summary

- ICD-10:
  - Interested in implementation
  - Oversees updating process
- ICD-11: Increasingly focus

Time for another ICD revision?

- When ICD-10 was endorsed by the WHA, a timeframe for the next revision was also specified
- Medical knowledge has continued to progress
- WHO's answer was yes

WHO's Timeline for ICD-11

- 2007: ICD-11 development began
  - Revision structures established
  - Various countries' clinical modifications of ICD-10 were entered into foundation layer
- 2011: Alpha draft
- 2012: Beta draft; field trials
- 2015: Present to World Health Assembly
- 2016: Countries could begin to implement

Aspirations for ICD-11: Process

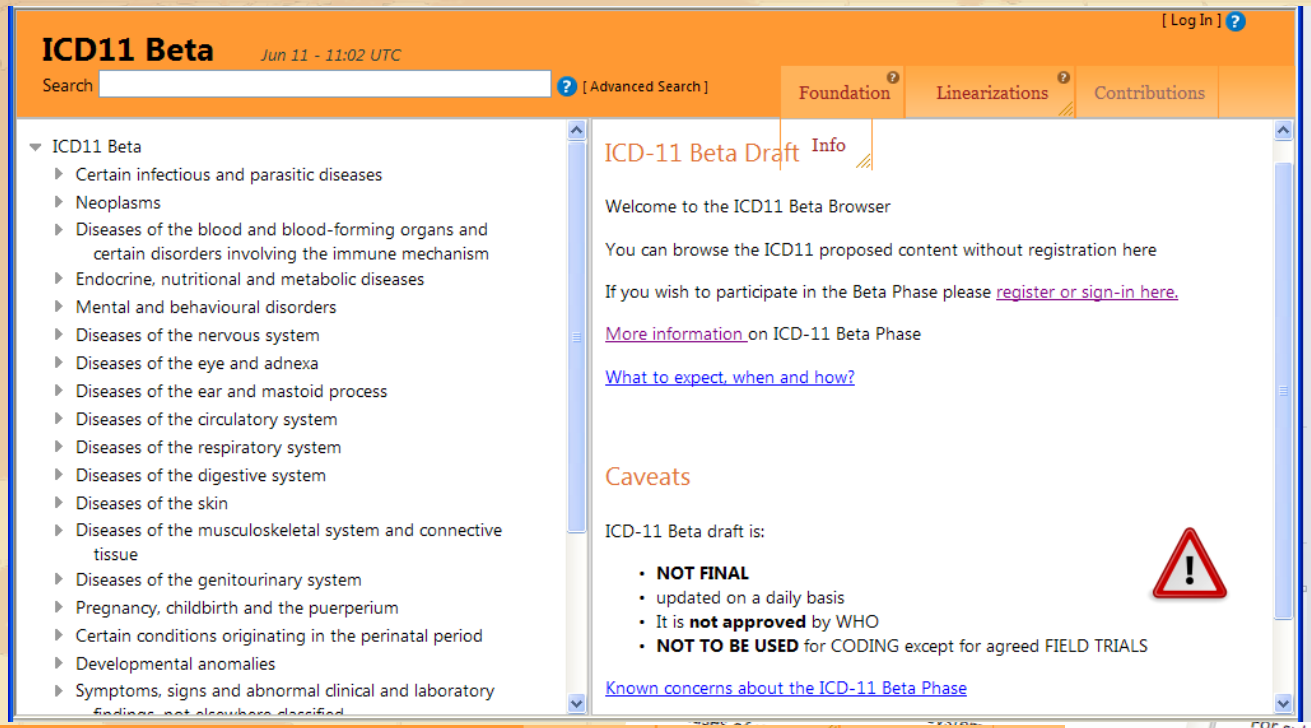
- Open development to wider participation
- Use of new tools to develop
- Revision structures in addition to public comment

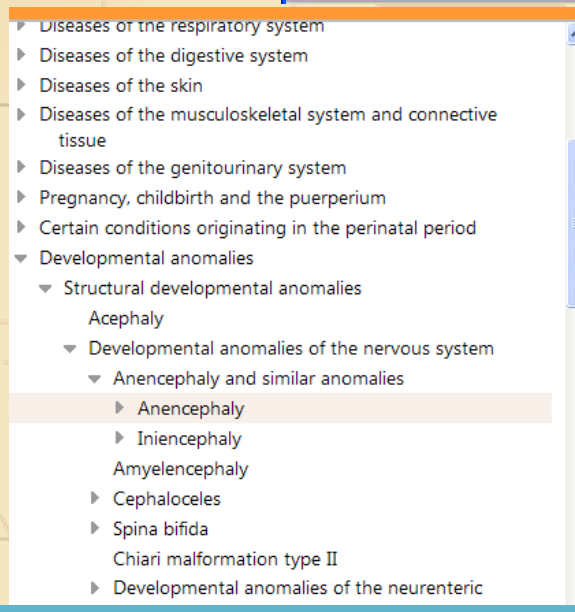
Aspirations for ICD-11: Content

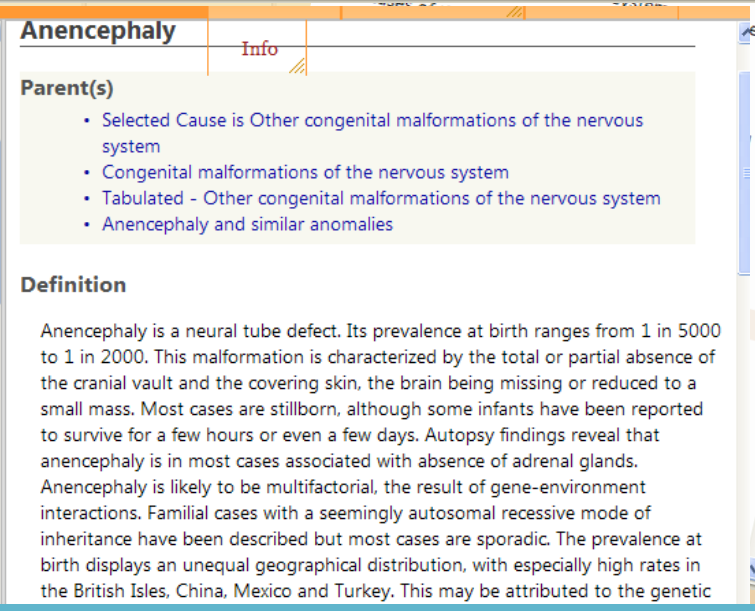
- Address the needs of many users
- Foundation layer more robust, include terminology, definitions, functional criteria
- Improve connections
  - Align or harmonize with other classifications
  - Link with terminology standards (e.g., SNOMED CT)
- Ease transition for users

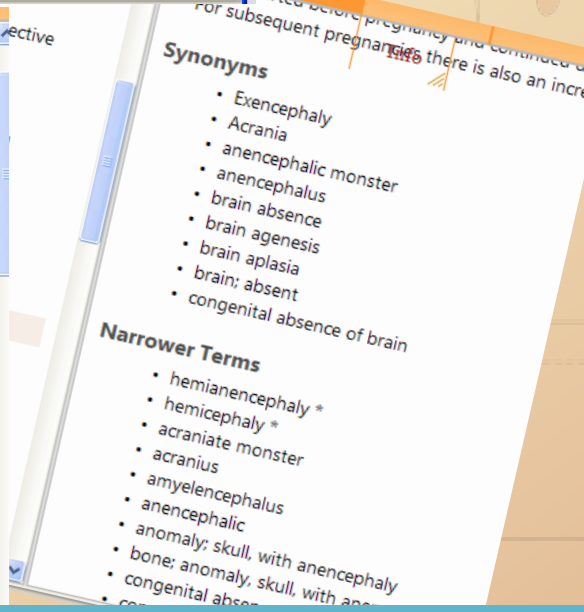
How's ICD-11 coming along?

- Few changes to timeline, although many content and structure issues are outstanding
- Deliverables haven't been as mature as expected
- Everything remains fluid as public comment period begins and field trials are planned
- Most expect they will be unable to implement for 5+ years after WHA endorsement







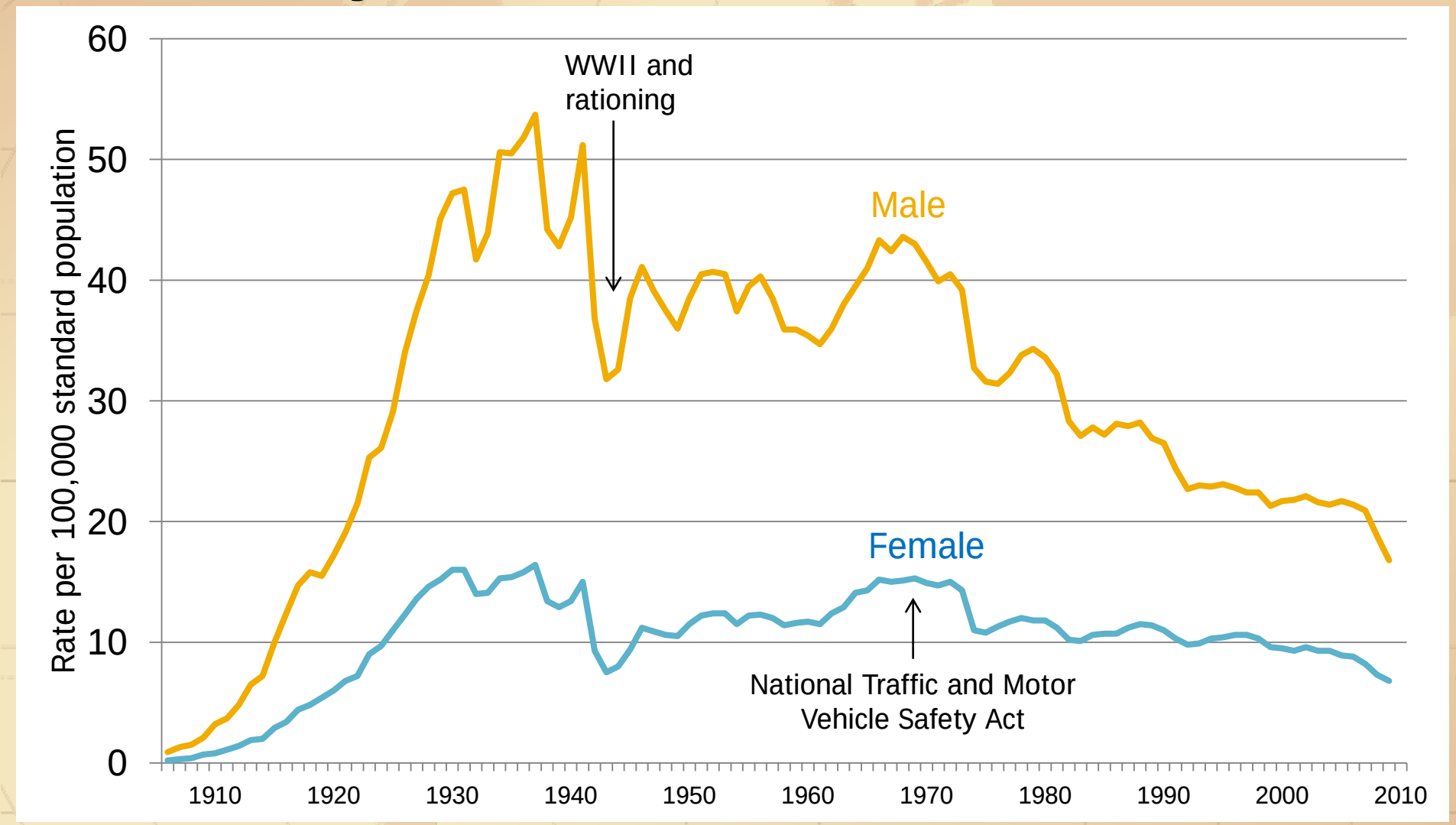


http://www.who.int/classifications/icd/revision/en/index.html

ICD brings focus to blur of experience

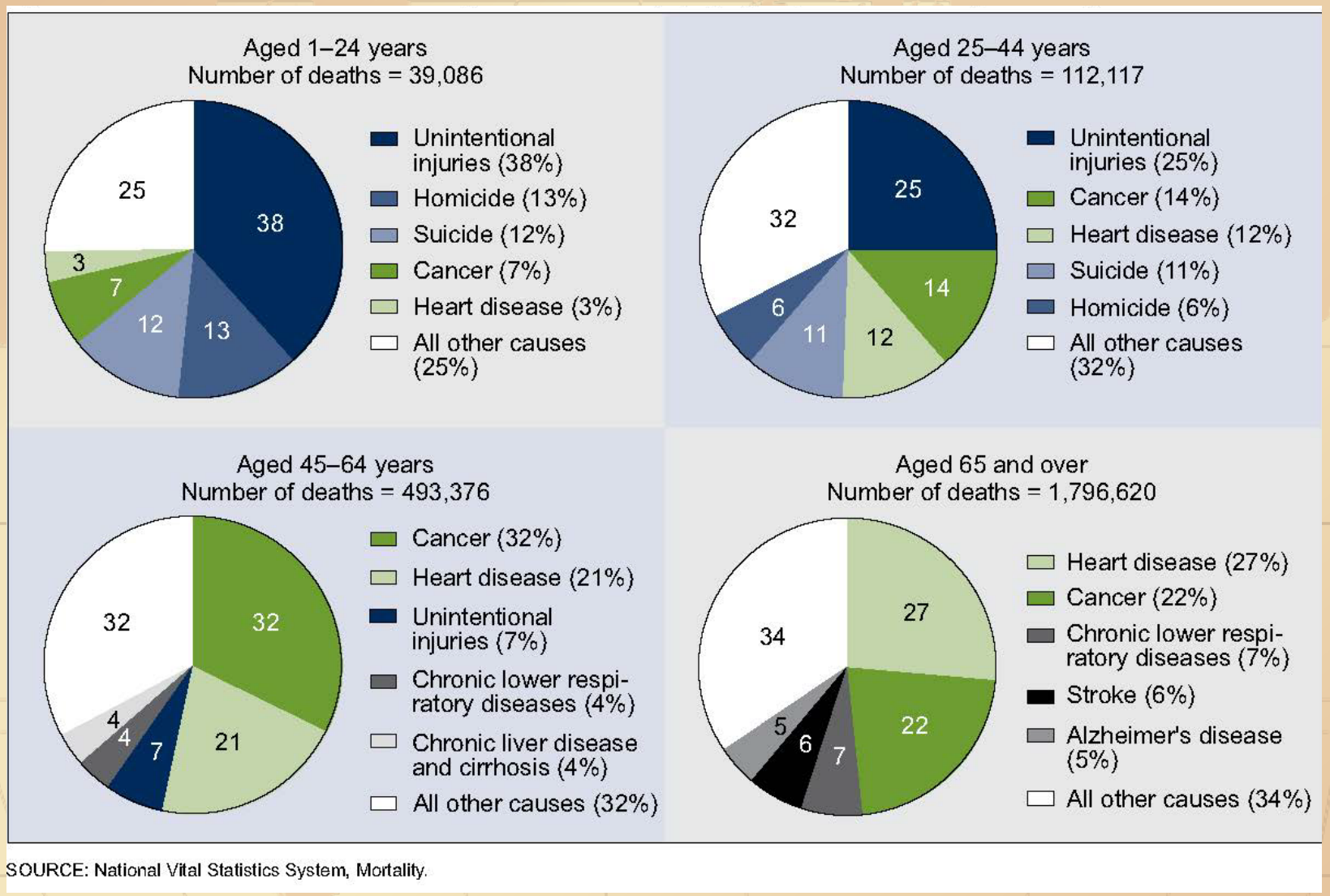
ICD Stands Between the Multitude of Individual Conditions and Informative Health Statistics

Age-adjusted death rates for motor-vehicle deaths by sex: United States, 1906-2010



NOTE: 2010 data are preliminary. Cause of death coded according to applicable revision of the ICD. 1906-1932 data are for a registration area; 1933-present data are for the US.
SOURCE: CDC/NCHS, National Vital Statistics System, Mortality.

Percent distribution of the leading causes of death by age group: United States, 2010



SOURCE: National Vital Statistics System, Mortality.

Note: 2010 data are preliminary

Minino & Murphy. Death in the United States 2010, Data Brief 99, July 2012.

Thank you for your attention.

Contact information for more on:

- Mortality: Donna Hoyert, dlh7@cdc.gov
- Morbidity: Donna Pickett, dfp4@cdc.gov
- ICD-11: http://www.who.int/classifications/icd/revision/en/index.html

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.