Making sense of the data: Europe-wide comparisons

Freddie Bray brayf@iarc.fr
Cancer Information Section
IARC » Lyon

UKACR-NCIN Conference 2011

• Background

• The three components:
  • EUCAN
  • EUROCAN
  • EUROCIM

• Future steps / Timeline

• Screenshots
• Background

To promote the use of cancer registries in cancer control, health-care planning, and research

To improve quality, comparability and availability of cancer incidence data

To create a solid basis for monitoring incidence and mortality in the European Union

To provide regular information on the burden of cancer in Europe
Objectives:

- to improve quality, comparability and availability of cancer incidence data, and thus strengthen the basis for monitoring cancer incidence and mortality;
- to provide regular and timely information on the burden of cancer;
- to develop a strategy for programme owners for monitoring cancer and for promoting research on cancer using existing databases.
WP4 The development, analysis, harmonization and exchange of European cancer registry data for monitoring cancer control

- Creation of a quality-controlled data submission mechanism to manage incoming and outgoing European registry data
- Develop analytic capacity to produce, from this data, key statistics and reports on the cancer burden in Europe
- Produce a public access dataset as well as a research dataset with more restricted access
<table>
<thead>
<tr>
<th>Data Call WG</th>
<th>March 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENCR call</td>
<td>May 2010</td>
</tr>
<tr>
<td>Data Processing / Reminders</td>
<td>July 2010</td>
</tr>
<tr>
<td>Data Call WG</td>
<td>Sept 2010</td>
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<tr>
<td>Data Analysis WG</td>
<td>Nov 2010</td>
</tr>
<tr>
<td>Data Sharing WG</td>
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</tbody>
</table>

- **EUCAN**
  - Estimates at country level for most recent year
- **EUROCIM**
  - Public access dataset
  - Research dataset
- **EUROCOURSE**
  - Timeline from call to delivery

### The three components

- **European Cancer Observatory**
  - International Agency for Research on Cancer
  - World Health Organization
A data extraction tool.

- Input from *Data Sharing & Ownership WG* re content of:

  D 4.1 Public access dataset for routine situation analyses
  D 4.2 Research dataset with access restricted to the registries and researchers

D 4.5 Development of a European Cancer Observatory: the formation of a comprehensive programme of work on cancer intelligence

- An online analysis tool for investigating the geographical patterns of cancer incidence & mortality according major sites of cancer.

- National *estimates* for 2012 will be derived for the 40 countries of greater-Europe.
**European Cancer Observatory**

D 4.5 Development of a European Cancer Observatory: the formation of a comprehensive programme of work on cancer intelligence

- Tabular and graphical analyses of country-specific patterns and trends on the basis of:
  1. recorded data from national registries or
  2. via aggregation of recorded data from regional registries to the national level.

### Incidence

**National Registries**
- Predictions to 2012:
  - NORDPRED ≥ 15 years
  - Dyba/Hakulinen ≥ 5-14 years

**Regional Registries**
- Mortality applied to country-specific Registry I:M ratio
  - Otherwise:
    - Mortality applied to area-specific Registry I:M ratio

### Mortality

WHO mortality predictions to 2012:
- NORDPRED ≥ 15 years
- Dyba/Hakulinen ≥ 5-14 years

Otherwise:
- Projection of recent data to 2012
- Simple means

### Incidence Aggregation of regional registry data to national:
- Larger numerator (more Registries) vs. greater span (select those with longer data series)
- Select only in CIS XI

**Mortality**

National Cancer Registry
Regional Cancer Registries
Maps
- registration coverage in Europe
- mortality coverage based on WHO
- ASR/CR by country (2012)

Bar charts (for 2012)
- Cancer-specific #/rates by country/sex
- Country-specific #/rates by cancer/sex

Line charts
Age-specific incidence rates by country/cancer/sex

Maps
- registration coverage in Europe
- span of data series by Registry
- ASR/CR by Registry*

Bar charts (for specified period)
- Cancer-specific rates by Registry/sex
- Country-specific rates by cancer/sex

Line charts
Age-specific incidence rates by Registry/cancer/sex
Trends
- Rates versus period by age
- Rates versus period by age
- ASR/CR versus period by country/cancer/sex

Web technology - in with the new..

THE OLD
- Inconsistent design & layout of disparate websites
- Built in ASP - old technology
- Export options are limited and user-unfriendly
- Options for modifying graph appearance limited
- Graphing technology outdated
- Poor validation - empty graphs / tables can appear

THE NEW
- New websites built from scratch
- Built-in ASP.Net technology (.Net 2.0)
- Single, consistent point of entry for EUCAN, EUROCAN, EUROCIM
- Uses current UI design technologies - JQuery, AJAX and MooTools
- Tables and graphs:
  - Dynamic appearance editing (fonts, sizing, themes etc.)
  - Based on dynamically generated XML & built-in Microsoft Reporting Services (RDLC)
  - Graphs based on FusionCharts & PowerCharts
European Cancer Observatory

**EUCAN 2012**
- online analysis tool for investigating:
  - patterns of incidence & mortality
  - by country & cancer site
  - for most recent year available

- National estimates for 2012 for the 40 countries of greater-Europe.

**EUROCAN**
- online analysis tool for investigating:
  - time trends in incidence & mortality
  - by country & cancer site
  - for available data series

1. Recorded data from national registries, or
2. Via aggregation of recorded data from regional registries (to the national level).

**EUROCIM**
- A data extraction tool:
  - Public access dataset
  - Research dataset

- Future steps / Timeline

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International Agency for Research on Cancer
World Health Organization
Future steps

• EUCAN
  • Update of incidence and mortality estimates for 2012.
  • Methods for estimating national incidence → EUROCOURSE WP3 WG

• EUROCAN
  • Inclusion criteria
  • Representativeness of national vs. regional registries → EUROCOURSE WP3 WG

• EUROCIM
  • Public and research datasets – content and to whom
  • Data Sharing and Ownership WP4 WG

• Integration of components of European Cancer Observatory
  • Further analyses: predictions 2015-2030 (incidence and mortality)
  • Other indicators: Prevalence – Survival – DALYs

• Establish:
  • Beta-testing group
  • EUROCAN Steering Group
    • Springboard for research?

• Communication
  • EUROCOURSE Executive Board, ENCR Steering Committee and ENCR Members
  • Other Networks

Tentative timeline to launch

• June-Dec 11: development of ECO
• Oct 11: beta-testing group established
• Nov 11: beta-testing (EUROCAN)
• Dec 11: beta-testing (EUCAN)
• Jan 11: beta-testing (EUROCIM)
• Feb 11: ECO steering group appointed
• Feb 11: ECO trial version to ENCR Members
• Apr 12: launch of ECO
• Screenshots
European Cancer Observatory

EUROCOURSE

EUROCARE

EUROIN

International Agency for Research on Cancer
Lyon, France
Tabular options

Incidence Rates by Registry

<table>
<thead>
<tr>
<th>Cancer Site</th>
<th>Median Age-Standardized Rate per 100,000</th>
<th>Cumulative Risk at 10 Years</th>
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<tbody>
<tr>
<td>All sites combined</td>
<td>150.0</td>
<td>8.0</td>
</tr>
<tr>
<td>Female</td>
<td>160.0</td>
<td>9.0</td>
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<tr>
<td>Male</td>
<td>140.0</td>
<td>7.0</td>
</tr>
<tr>
<td>All sites combined</td>
<td>160.0</td>
<td>10.0</td>
</tr>
<tr>
<td>Female</td>
<td>180.0</td>
<td>11.0</td>
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<td>Male</td>
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</tbody>
</table>
Dictionaries
a. Create new account  
b. Log in