A brief introduction to CanReg5

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Outline

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Needs

- Cancer registries need a tool to input, store, check and analyse their data.[1]
- If this data is also coded and verified in a standard way, it facilitates the production of comparable analyses across registry populations.

Goal

- The main goal of the CanReg5 project is to provide a flexible and easy to use tool to accomplish these objectives.

Outline

CanReg5

- CanReg5 has modules to do
  - data entry
  - quality control
  - consistency checks
  - basic analysis of the data.

Outline

Open Source

- CanReg5 is an open sourced program. (It is distributed under a GNU-General Public License.)
- The source code is available
  - For documentation purposes.
  - Allows more technical users to adjust the program to their needs, and to spot, fix and report programming errors.

Open Standards

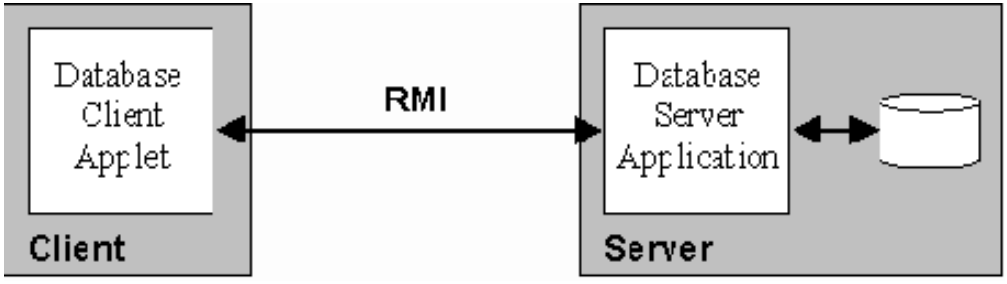
- Improved interoperability with other programs.
  - Cut and paste to/from general spreadsheets etc.
  - Call R scripts directly from CanReg.
- Open Standards allow users to access, and to a certain extent, design their own database using existing tools.
  - System configuration of CanReg5 is done using standard XML files.
  - Filters within CanReg5 can be done in a subset of the SQL language.
  - Translation of the software into other languages is done by editing standard text files.

Database

- At the heart of the program there is a standard compliant powerful open sourced SQL relational database engine.
- Data split over 3 main tables:
  - One patient ID per patient.
  - Many tumour records per patient.
  - Many source records per tumour record.

Multi-user/network

- Robust networked multi-user support was implemented by wrapping the database in a server application, easy to set up and run.
  - Easy to install and as single user, as well as having the possibility to allow multi user access.
- Standard multi-tier design, using Java/RMI.



Multi-platform support

- CanReg5 was designed to run on all major operating systems (i.e. Microsoft Windows, Apple's OS X, Linux etc.)

User friendliness

- CanReg5 was designed with an emphasis on user friendliness
  - Has a modern user interface
  - Easy to navigate
- Is available in several languages
  - English, French, Russian, Portuguese, Chinese and Spanish as of now.

Quality control standards

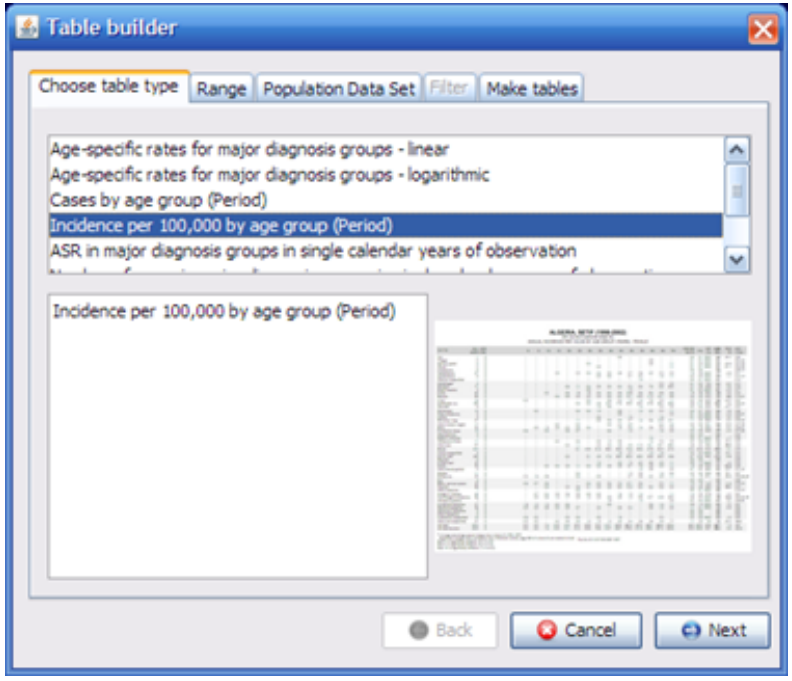
- Built into CanReg5 are several quality control mechanisms, such as:
  - Interactive code validation
  - Consistency checks for the most standard variables
  - Quality control reporting tools

Quality control standards (contd.)

- CanReg5 has a module for spotting and correcting potential duplicate patient records in the database and has a module that allows for tumour unduplication, using the 2004 multiple primary rules.
- The edit checks are based on the ones found in other tools provided by IARC.

Improved analysis

- The data analysis part of CanReg5 has been improved to support more dynamic tables/reports.



Import and conversion of CanReg4 systems

- CanReg4 users can import their database into CanReg5 easily, using built-in modules that
  - perform system definition conversions
  - import the dictionaries
  - import the database
  - import the population data sets

Documentation

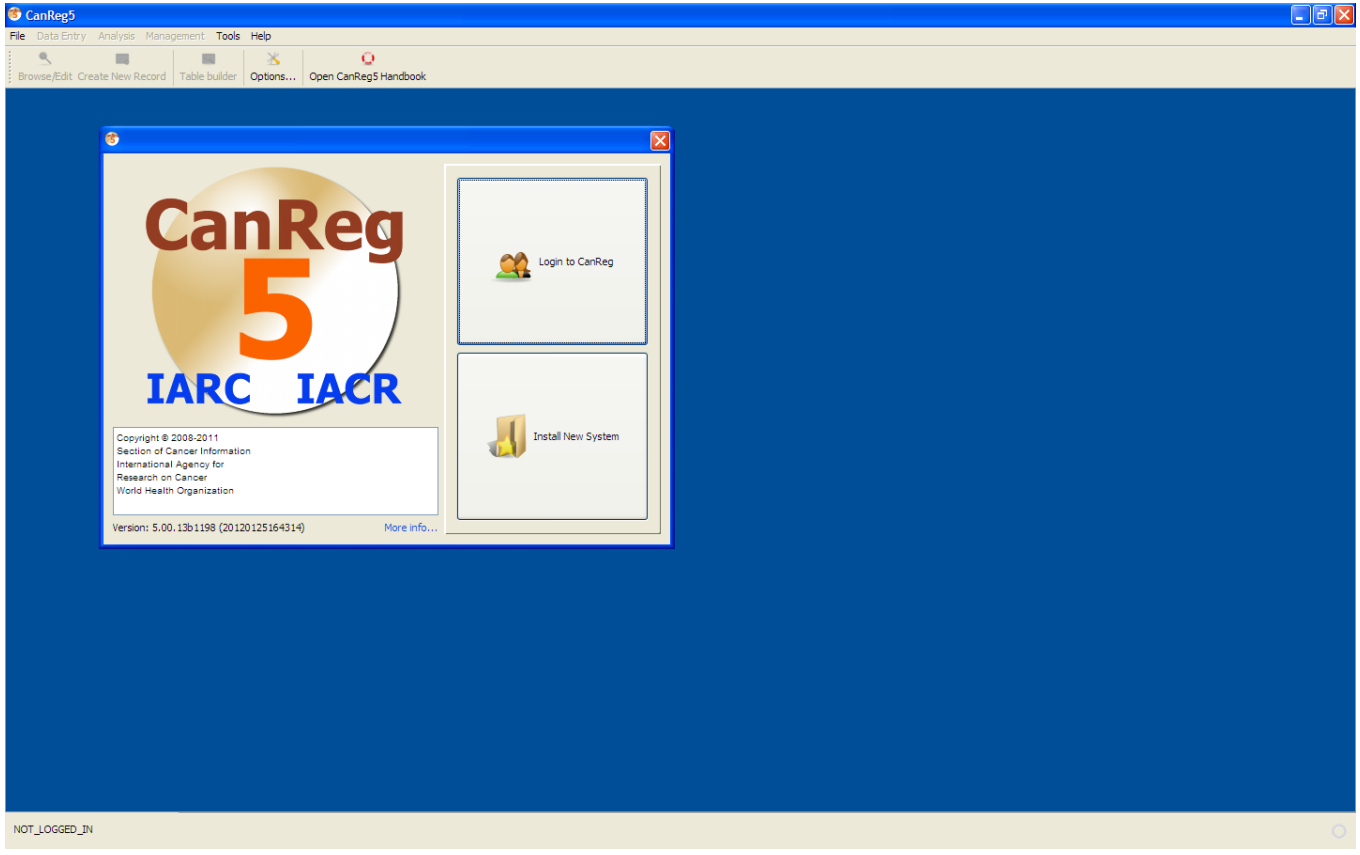
- Supplied with the software (and freely available online[2]) is an ever evolving handbook on most aspects of CanReg.
  - Installation guide
  - Migration, step-by-step
  - FAQ

Outline

Timeline

- Beta testing started in 2009.
- Officially launched at the IACR conference in Yokohama in October 2010.
- Updated versions put online monthly. (Update, 5.00.14, was put online in February 2012.)
  - New features (analytical tools etc.)
  - Bug fixes (programming errors removed, performance improvements etc.)
  - Security fixes (database encryption etc.)
- Both the software itself and the handbook was downloaded more than 5000 times in 2011.

Live Demo


CanReg5
File
Data Entry
Analysis
Management
Tools
Help
Browse/Edit
Create New Record
Table builder
Options...
Open CanReg5 Handbook
CanReg
5
IARC
IACR
Copyright © 2008-2011
Section of Cancer Information
International Agency for
Research on Cancer
World Health Organization
Version: 5.00.13b1198 (20120125164314)
More info...
Login to CanReg
Install New System
NOT_LOGGED_IN

Summary

- Cancer registries needs a tool to manage their data.
- The goal of CanReg5 is to provide most of what a cancer registry needs in one easy to use software package.
- Download it, free of charge, from http://www.iacr.com.fr/ under Software, CanReg5.

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Future webinars

- Next webinar last week of March.
- Theme:
  - Set up and installation
- Possible future themes:
  - Migration (System administrators)
  - Tailoring a CanReg5 system (System administrators)
  - Data Entry (All)
    - Quality control
    - Patient deduplication
  - Using browse/filter to find cases (All)
  - Import of data (System administrators)
- Slides will be put online.

For Further Information I

O.M. Jensen et al

Cancer Registration: Principles and Methods

IARC Scientific Publication No. 95, 1991.

Available online at the IARC web page under publications.

Ervik, Morten

CanReg5 - the handbook

2009-2012

Available online at the IACR web page under software

CanReg5 web page

http://www.iacr.com.fr/canreg5.htm

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