

Reporting system for causes of death statistics

Question/requests:

The cause of death statistics (TUS) is an important data source in Switzerland's health information system. The results of the cause of death statistics are recorded in an Oracle database. It is a census with an average of 62,000 deaths per year. The purpose of this project is to be able to produce better and more standard tables on the cause of death statistics with less effort than today. The aim was also to combine all existing SAS Enterprise Guide projects with a uniform parameter call into one project.

Methods:

Thin client solution based on SAS Enterprise Guide (EG) with access to Linux server. User can start the respective evaluation jobs by means of frontend selection parameters (year, diagnosis, Swiss / foreigner, region (whole CH, cantons) language etc.) (5 subprojects). Selection from the database is then carried out using SQL procedures. Subsequently, the causes of death are grouped by means of the ICD codes into the respective diagnostic categories with SAS data-steps and various indicators are calculated according to gender (standardized rates, number of lost potential life years, etc.). Based on language-specific formats, the reports are created in the selected national languages (D, F, I) as well as English as excel files.

Results:

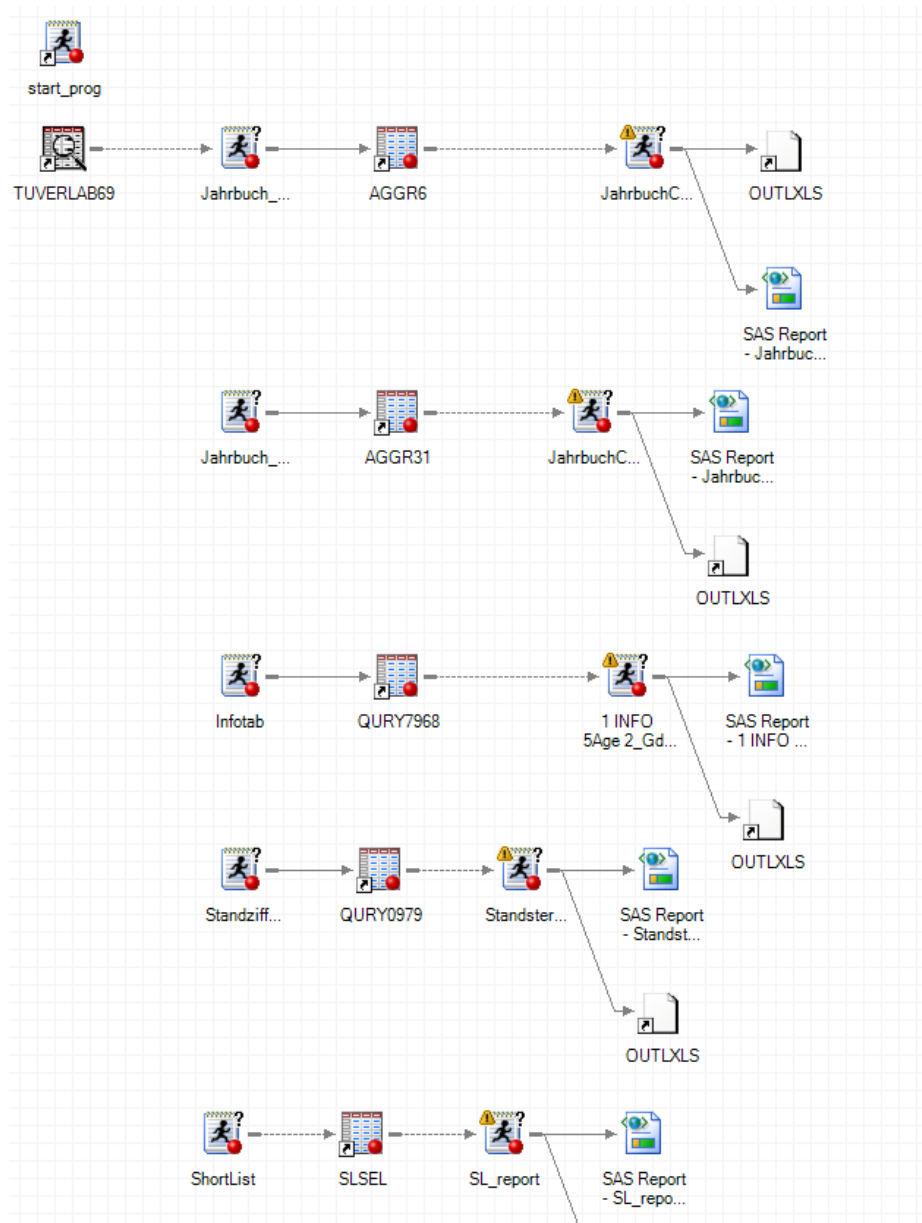


Figure 1: Process flow from SEG

Werte für Projekt-Eingabeaufforderungen angeben

Nur erforderliche Elemente anzeigen (gekennzeichnet durch ★)

Allgemein [Gruppenstandardwerte zurücksetzen](#)

★ Sterbejahr
2010

★ Nationalität unt. Grenze (Schweizer oder alle 8100, Ausländer 8200)
8100

★ Nationalität ob. Grenze (Schweizer 8100, Ausländer oder alle 8999)
8999

Standardbevölkerung: (1=CH, 2=WORLD, 3=EUR, 4=TRUNC, 5=AFR)
3

★ Ereignisjahr oder Statistikjahr
Statistikjahr

lang
D

Geo Region / région géographique
Ganze Schweiz/Suisse complète

Ausführen Abbrechen

Werte für Projekt-Eingabeaufforderungen angeben

Nur erforderliche Elemente anzeigen (gekennzeichnet durch ★)

Allgemein [Gruppenstandardwerte zurücksetzen](#)

Sterbejahr untere Grenze
2009

Sterbejahr obere Grenze
2010

Geo Region / région géographique
Ganze Schweiz/Suisse complète

Diagnosis (aus Shortlist, Eurostat)
10: Malignant neoplasm of stomach

0: All causes of death
1: Infectious and parasitic diseases
2: Tuberculosis
3: AIDS (HIV-disease)
4: Viral hepatitis
5: Other infectious and parasitic diseases
6: Neoplasms
7: Malignant neoplasms
8: Malignant neoplasm of lip, oral cavity, pharynx
9: Malignant neoplasm of oesophagus
10: Malignant neoplasm of stomach
11: Malignant neoplasm of colon, rectum and anus
12: Malignant neoplasm of liver
13: Malignant neoplasm of pancreas
14: Malignant neoplasm of larynx
15: Malignant neoplasm of trachea, bronchus, lung

Figure 2: Entry page with parameter selection

Endgültige Todesursache	Anzahl	% aller Todesfälle	Rohe Rate	Standardisierte Rate	VPL abs.	% der VPL	VPL standardisierte Rate	Mittleres Sterbealter (Jahre)
Männer								
Herz-Kreislaufkrankheiten	9924	32.8	257.7	181.2	19760	17.8	508.3	79.2
Krebskrankheiten	9054	29.9	235.1	176.3	33258	30	861.6	72.7
Atmungsorgane	2007	6.6	52.1	36	2515	2.3	66.3	80.2
Äussere Ursachen	2112	7	54.8	45.6	30539	27.5	862.4	60.4
Demenz	1598	5.3	41.5	27.4	203	0.2	5	85.4
Alle übrigen Diagnosen	5588	18.5	145.1	110.2	24645	22.2	660.6	72
Total	30283	100	786.4	576.7	110920	100	2964	75
Frauen								
Herz-Kreislaufkrankheiten	12035	37.2	302.9	115.9	6770	10.5	176.1	86
Krebskrankheiten	7223	22.3	181.8	110.8	30401	47.4	791.3	72.9
Atmungsorgane	1719	5.3	43.3	18.6	1472	2.3	38.6	83.4
Äussere Ursachen	1454	4.5	36.6	20.4	10352	16.1	297.1	73.9
Demenz	3597	11.1	90.5	31.7	325	0.5	7.9	87.8
Alle übrigen Diagnosen	6338	19.6	159.5	79.1	14882	23.2	421.7	78.7
Total	32366	100	814.5	376.4	64202	100	1733	81.2
Frauen und Männer								
Herz-Kreislaufkrankheiten	21959	35.1	280.6	144.9	26530	15.1	342.2	82.9
Krebskrankheiten	16277	26	208	137.9	63659	36.4	825.7	72.8
Atmungsorgane	3726	5.9	47.6	25.3	3987	2.3	52.5	81.7
Äussere Ursachen	3566	5.7	45.6	32.4	40891	23.3	582.1	65.9
Demenz	5195	8.3	66.4	30.3	528	0.3	6.4	87.1
Alle übrigen Diagnosen	11926	19	152.4	93.2	39526	22.6	541.3	75.6
Total	62649	100	800.6	464.1	175122	100	2350	78.2

Figure 3: Example Excel output (German language)

Conclusions:

The SAS application increases the user-friendly work by far automation of the evaluations. Uniform programs also simplify maintenance. In particular, the productivity and quality of the evaluations could be substantially improved so that the specialized personnel can focus on other tasks.

The publication of this project in its present form has been authorized (Dr. med. Christoph Junker, Head of Vital Statistics, FSO).