Routine data sources challenge international diabetes Federation extrapolations of national diabetes prevalence in Switzerland

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Abstract: OBJECTIVE Information on diabetes prevalence in the general population is scarce and often based on extrapolations. We evaluated whether prevalence could be estimated from routine data sources. RESEARCH DESIGN AND METHODS The sources were 1) hospital discharges (2008, n = 828,171), 2) death registry (2007/2008, n = 118,659), and 3) Swiss Health Survey (SHS; 2007, n = 18,665). Persons without diabetes as underlying cause of death (death registry) or principal diagnosis (hospital discharges) were regarded as surrogate for a general population random sample. RESULTS In those aged 20-84 years, 4.5% of men and 3% of women were expected to have diabetes. By source, estimations were 4.4 and 2.8% (hospital discharges), 3.8 and 3.1% (death registry), and 4.9 and 3.7% (SHS) for men and women, respectively. Among sources, age-sex patterns were similar. CONCLUSIONS In countries with adequate data quality, combination of routine data may provide valid and reliable estimations of diabetes prevalence. Our figures suggest that International Diabetes Federation extrapolations substantially overestimate diabetes prevalence in Switzerland.

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Supplemental Material

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Supplementary Figure 1. Prevalence of diabetes in Switzerland by sex and age class: Comparison of three different data sources 2007/8 and trends 1995-2008

**Swiss Health Survey (SHS):** 2007: N=18,665 (66% participation), 2002: N=18,655 (64%), 1997: N=12,707 (60%)

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