

Commentary II

Swiss epidemiology needs Swiss epidemiologists

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Epidemiological research has a limited tradition in Switzerland: it was only with the introduction of social and preventive medicine into the medical curricula in 1962 (see Jeanneret 1994), that it got an academic home. Postgraduate teaching in epidemiology was delayed for another 30 years when it became possible to get a MPH-degree in Switzerland; and a School of Public Health has yet to be created. However epidemiology is one of the basic tools in public health and it is therefore, very appropriate that the epidemiologic group of the Swiss Society for Public Health has formulated recommendations for “essentials of good epidemiological practice” (Altpeter et al. 2005). This is certainly a valuable task to undertake and the group is to be credited for this. Personally, I would like to comment on the recommendations on two different levels: First, I would like to have a short look at the general use of such a document in Switzerland and secondly, I would like to give some thoughts to its contents.

The first question is: Who is this document meant for?

Are Swiss epidemiologists an international species? The aim of the recommendations is to assist all persons and institutions that are involved in “commissioning, planning, preparation, conduct, analysis, assessment, review, valorisation or financial support of epidemiological studies” and it is written for “the betterment of epidemiology in Switzerland”.

This subtitle already illustrates a basic problem we are confronted with when planning and reviewing epidemiological projects in our country: it is the language problem. If we write for Switzerland why write in a language, which is not our mother tongue? Why not formulate recommendations in German and French?*

* Note from the editors: We followed this recommendation and provided a translation of the guidelines into German, French, and Italian in this issue.

who formulated the recommendations who are from French or German language regions in Switzerland and certainly the document is not written for native English language speakers. The “minimum standards” should be easily and completely understood by medical students, MPH-trainees and persons in federal and cantonal offices. We know by experience, that these groups would prefer to read a document in their own language. Epidemiological research should have a primordial place in the improvement of public health in Switzerland. The main responsibility for health and health care remains in the cantonal health departments where the mastery of foreign languages is sometimes limited. Mastery of foreign languages is better in academic researchers – but do we really want to limit communication within Switzerland of a document designed for Switzerland?

Epidemiological concepts and requirements are summarized in a “cookbook” or “check list” fashion. This can be useful at many different levels, but care should be taken to avoid the illusion, that by using a “check list” an epidemiologist is created. I do not have the slightest doubt that the document has already had an effect by bringing together a group of Swiss epidemiologists and drawing together a consensus on what constitutes good epidemiological practice – the process in itself has a value for Switzerland quite apart from its product.

Some thoughts on the content

The document has four chapters: introduction, study protocols, study conduct, and publication of results. These three steps (apart from the introduction) in the course of a study are certainly important. When planning a study the timing is crucial. Recommendation in this part reads “plan for needed time ...” and later on “... plan for sufficient resources for publication”. While in reviewing studies I usually find suffi-

cient resources planned for conducting the study and mainly for the data collection, there is a general tendency to grossly underestimate the time and resources needed for data cleaning and analysis. This part might have deserved an own section in the document and could have replaced the part of the “publication” chapter.

A further comment is of more general nature. The recommendations insist on hypothesis formulation. For many years, I have tried to avoid formulating hypotheses, which only point in one particular direction. However, it has become a general requirement for protocols to formulate explicit hypotheses and in this context the documents follows the established rules. But in my experience of reviewing numberless protocols and reports, I have become suspicious about this requirement: it directs the mind of the researcher to follow one particular path and to ignore different aspects. To look at data with a very open mind is often called “fishing” and has been criticized in many textbooks and documents relating to epidemiologic research. But to follow only one particular line of hypotheses limits the freedom of the researcher and causes him or her to sometimes ignore differences or heterogeneity in the data. Reviewers have a tendency to refer back to original hypotheses when reports point out results due to risk factors not originally identified. Stratification has become a neglected tool in epidemiologic analysis because so-called confounders can be easily “adjusted for”. In fact, in

many instances, gender differences have been overlooked because they were not formulated in the original hypothesis and adjustment for the influence of the variable was conducted without full consideration of its impact. Some caution on hypotheses formulation and relaxation in following the line of hypotheses might be recommended in the document: the sentence in the publication section “studies, which do not confirm the initial hypothesis should also be published” is misleading in this context. The aim of the study ought to be formulated in more neutral terms, for instance “to investigate whether x influences y” and it should be remembered that statistical testing always refers to the null-hypothesis.

Conclusion

The document will certainly be a great help to the uninitiated; the standards it proposes are high and therefore to be welcomed. Fulfillment of its recommendation would be demanding for even a most experienced epidemiologist. But basically, I wish the document one specific thing: translation into French and German in order that it have an optimum reception in medical students, MPH-students and Cantonal Health Departments.

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References

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