COMMENTS AND RESPONSES

Determinants for the Effectiveness of Lifestyle Intervention in the Finnish Diabetes Prevention Study

Response to Schulze

In our recent publication (1), we showed that among participants in the Finnish Diabetes Prevention Study, a diabetes prevention trial using lifestyle intervention, those who had the highest baseline composite diabetes risk as measured by the Finnish Diabetes Risk Score (FINDRISC) achieved the largest risk reduction during the lifestyle intervention.

We appreciate the comment written by Schulze. However, the major part of the comment addresses our earlier publication (3) describing the development and validation of the risk prediction model using two large, population-based cohorts. In that paper, we extensively discussed the issues raised by Schulze, including his concerns about identifying diabetes cases based only on drug treatment. Using existing cohort data for this kind of prediction modeling is sensible; however, it limits the selection of prediction and outcome parameters to those that are already available. We have indeed added a question about family history of diabetes and the age category >64 years into the final FINDRISC, even though they were not included in the original prediction model. As the FINDRISC is already widely used in Finland and other parts of Europe, both by researchers and in health care, we expect new results of its validity in the near future (4). In addition, the incidence rates observed among the control group participants (1) (presented in Table 3) clearly suggest that the FINDRISC reliably categorizes even those with impaired glucose tolerance according to their future diabetes risk when diabetes diagnosis is based on repeated oral glucose tolerance tests and not on initiation of drug treatment.

Regarding the present paper, Schulze is surprised to see that as many as 61% of the Finnish Diabetes Prevention Study participants had a baseline FINDRISC less than 15. To compute the FINDRISC, we used self-reported data on previously measured high blood glucose (as stated in the methods section) to simulate a situation where the FINDRISC would have been completed before the screening oral glucose tolerance test. Only 105 (20%) of our participants replied positively; those with earlier diagnosis of drug- or diet-treated diabetes (other than gestational diabetes mellitus) had already been excluded during the screening phase. Furthermore, the cutoff point of 15 is arbitrary and not intended to identify people with impaired glucose tolerance.

By the "relatively low risk" of progression to diabetes among those who had low baseline FINDRISC, we mean risk relative to those with high baseline FINDRISC; we agree that incidence of 4 per 100 person-years is high compared with the general population. Finally, we agree with Schulze that evaluating whether combining noninvasive screening with glucose testing improves diabetes risk prediction is warranted; however, that will be a totally new story.

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DOI: 10.2337/dc08-1418

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