

## **Progress on Adaptive Survey Design at Statistics Netherlands in 2019**

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### ***Abstract***

Challenges that surveys are facing are increasing data collection costs and declining budgets. During the past years, many surveys at Statistics Netherlands were redesigned to reduce cost and to increase or maintain response rates. Currently, alternative approaches are investigated to produce more accurate estimates within the same budget. Adaptive survey design is proposed for achieving this goal.

Research into the effect of reducing face to face and telephone observation in mixed mode surveys on quality and costs was carried out in previous years. Reducing face to face and telephone observation can be done in various ways. It can be done through random selection, but also through stratified selection of nonrespondents eligible for face to face or telephone follow-up. By using the latter method, nonresponse bias can potentially be reduced. The key decisions to be made are how to divide the population into strata and how to compute the allocation probabilities for face to face and telephone follow-up in the different strata.

Currently, adaptive survey design is a standard option in redesigns of person and household surveys at Statistics Netherlands. In 2018 it has been implemented for surveys conducted by internet with face to face follow-up interviews, among which the Dutch Health survey. In 2019 this is expanded to surveys with internet observation and follow-ups by face to face or telephone or both.

This presentation lists the surveys for which Statistics Netherlands has introduced an adaptive survey design, from 2018 onwards. The design for the Health Survey 2019 will be worked out in detail. This includes the motivation for the choice of the strata, and of the mixed mode observation strategy, how to reduce nonresponse bias with constraints on precision and cost, and the effect of adaptive survey design on most important survey estimates.

### ***Keywords***

Balanced response, Nonresponse bias, Accuracy, Data collection costs