# Supplementary File S1

Summary: Additional variables used in the construction of the new SDI (SDInew). The SDInew was used in the sensitivity analysis.

**Additional Social Deprivation Variables used in the Sensitivity Analysis**

*Space in the home*

We calculated the ratio of residents living in the respondent’s home over the number of rooms in the respondents home to assess overcrowding.

*Local Area Variables*

Four questions were asked to establish neighbourhood quality. Respondents were asked whether they felt part of their local area, whether the area was clean, whether they would get help from people in their local area if they needed it. If participants’ replies were negative, this was coded as indicating deprivation (indication of deprivation=2, else=1). Moreover, respondents were asked whether there was crime and/or vandalism in the local area; confirmation of this was coded as indicating deprivation (indication of deprivation=2, else=1).

*Accessibility Variables*

Respondents were asked how easy it was for them to access a bank, a shop, a general practitioner and a pharmacy on a scale ranging from very difficult to very easy. Items were coded so that greater difficulty was reflected in a higher score (1=Very easy, 2=Easy, 3=Difficult, 4=Very difficult).

*Social Inclusion Variables*

Respondents were asked to report whether they felt left out of things . Moreover, they were asked whether they felt that people could generally be trusted. A feeling of isolation and a lack of trust were coded as suggesting deprivation (indication of deprivation=2, else=1).

*Waiting for the doctor*

Respondents were asked whether they missed a necessary doctor’s appointment in the last 12 months because of a long wait. If so, this was taken as an indication of deprivation (indication of deprivation=2, else=1).

*Literacy Variables*

Respondents self-rated their ability to read and write. Answers were coded so that poor literacy would indicate higher deprivation (Excellent=1, Very Good=2, Good=3, Fair=4, Poor=5). Moreover, IT literacy was assessed as self-rated computer skills; here an additional option was to report a complete lack of skill (i.e. an additional code was: 6=I never used a computer).

*Material Deprivation Variables*

Nine questions cover the respondents’ ability to afford certain goods and services. Respondents were asked whether the household could afford necessary groceries, a weeklong holiday away from home at least once a year, or an unexpected expense. Moreover, questions were posed regarding whether in the past 12 months living costs had been kept down by wearing worn out clothing, wearing worn out shoes, feeling cold to save heating costs, or going without necessary replacement glasses. Finally, respondents were asked whether a dentist visit had been postponed in the past 12 months to keep costs down and whether there was a time the respondent skipped a necessary doctor’s visit because of cost. Any answer suggesting that a good or service was forgone because of cost was coded as material deprivation (indication of deprivation=2, else=1).