## Supplement

## 2 Supplement 1. Multiple imputation

## 3 Table 1. Details of the multiple imputation process

Sofware used:	IBM SPSS statistics version 25		
Imputation method and keysettings:	Fully Conditional Specification Method Iterations;		
	maximum iterations 10		
Number of imputed data sets created	15		
Variable include in the imputation procedure (imputed or used as predictors of missing data	Age, sex, kidney failure, liver failure, heart disease, respiratory disease, Diabetes Mellitus, hiv-positive, down syndrome, antibiotic prescription, hospital admission, intensive care admission, death, body mass index, smoke status		
Treatment of normally distributed variables	Linear regression		
Treatment of binary/categorical variables	Logistic regression		
Imputed values	1 <sup>st</sup> and 2 <sup>nd</sup> wave respectively: Body mass index missing values 84.3% (1434) and 61.9% (4274) (minimum values 17 and maximum 57) Smoke status missing values 84.3% (1434) and 60.6% (4182)		

## 5 Table 2. Effect multiple imputation on average BMI and percentage smokers

	1th wave		2 <sup>nd</sup> wave	
	Before multiple	After multiple	Before multiple	After multiple
	imputation*	imputation*	imputation*	imputation*
BMI > 29	42.2%	49.2%	43.6%	46.7%
Smoking status	23.8%	29.0%	16.4%	20.4%

BMI: Body Mass Index.

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\* This percentage was calculated using the population number with known BMI or smoke status as denominator.