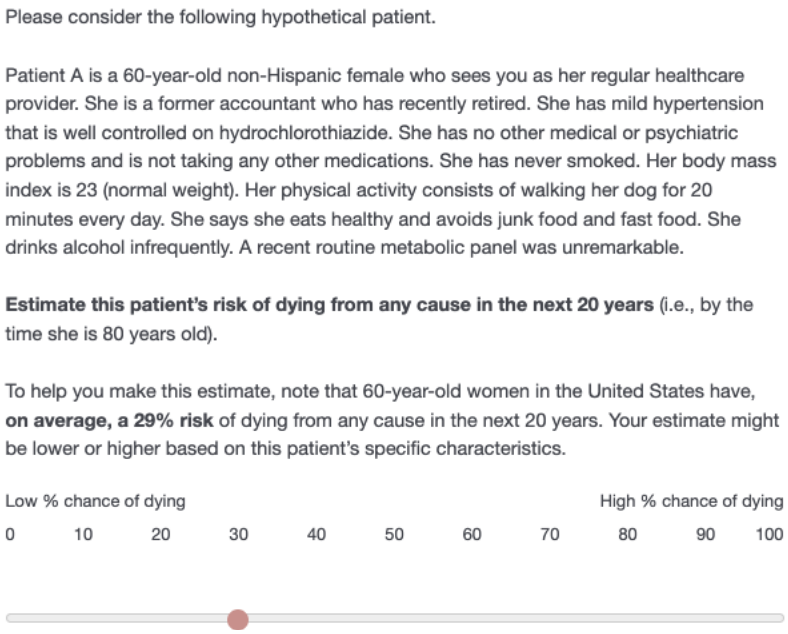
eAppendix 1: Supplementary Methods

Clinical vignettes

The full questionnaire is publicly available (https://osf.io/9ydkm/). For participants who were assigned to first view the vignette describing a normal-weight patient, the vignettes appeared as follows.



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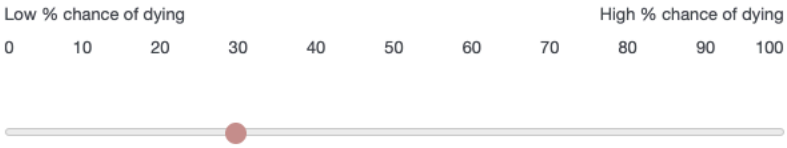
Now consider **a patient who is identical** to the one you just assessed, **except that her BMI is 28 (overweight, but not obese)** rather than 23 (normal weight). For reference, the current patient's characteristics are shown below.

Patient B is a 60-year-old non-Hispanic female who sees you as her regular healthcare provider. She is a former accountant who has recently retired. She has mild hypertension that is well controlled on hydrochlorothiazide. She has no other medical or psychiatric problems and is not taking any other medications. She has never smoked. **Her body mass index is 28 (overweight, but not obese)**. Her physical activity consists of walking her dog for 20 minutes every day. She says she eats healthy and avoids junk food and fast food. She drinks alcohol infrequently. A recent routine metabolic panel was unremarkable.

As before, please **estimate this patient's risk of dying from any cause in the next 20 years** (i.e., by the time she is 80 years old).

To help you make this estimate, note that 60-year-old women in the United States have, **on average, a 29% risk** of dying from any cause in the next 20 years. Your estimate might be lower or higher based on this patient's specific characteristics.

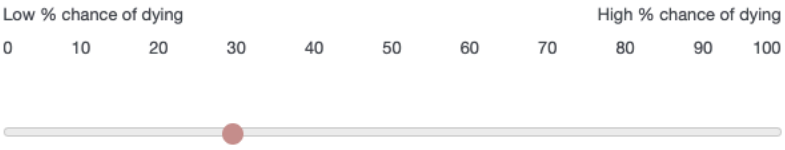


For participants who were instead assigned to first view the vignette describing an overweight patient, the vignettes appeared as follows.

Patient A is a 60-year-old non-Hispanic female who sees you as her regular healthcare provider. She is a former accountant who has recently retired. She has mild hypertension that is well controlled on hydrochlorothiazide. She has no other medical or psychiatric problems and is not taking any other medications. She has never smoked. Her body mass index is 28 (overweight, but not obese). Her physical activity consists of walking her dog for 20 minutes every day. She says she eats healthy and avoids junk food and fast food. She drinks alcohol infrequently. A recent routine metabolic panel was unremarkable.

Estimate this patient's risk of dying from any cause in the next 20 years (i.e., by the time she is 80 years old).

To help you make this estimate, note that 60-year-old women in the United States have, **on average, a 29% risk** of dying from any cause in the next 20 years. Your estimate might be lower or higher based on this patient's specific characteristics.



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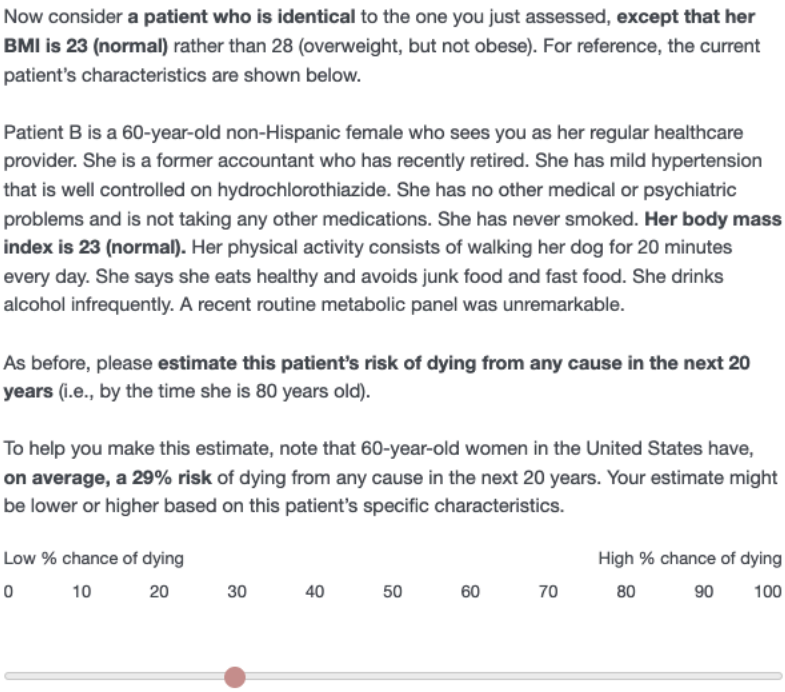
eAppendix: Primary care physicians' perceptions of the effects of being overweight on all-cause mortality



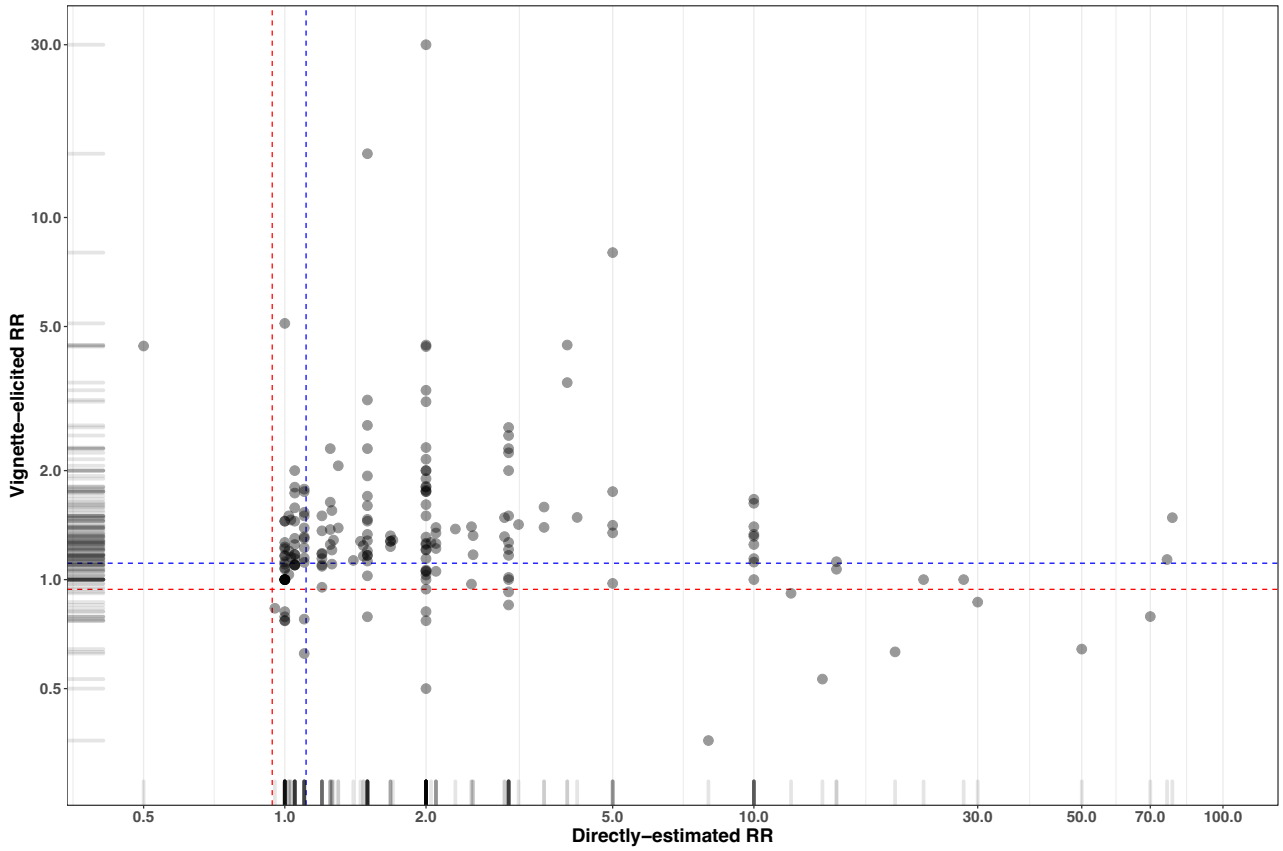
eAppendix 2: Supplementary Results

eTable 1. Participants' demographic characteristics. Continuous variables are reported as medians with 25th and 75th percentiles ("Q1" and "Q2"). Categorical variables are reported as counts and percentages.

Characteristic	Median (Q1, Q2) or *N* (%)
Age (years)	41 (37, 48)
Specialty	
Family practice	54 (28%)
General practice	54 (28%)
Hospitalist	13 (7%)
Internal medicine, general	42 (22%)
Internal medicine, specialty	29 (15%)
Practice type	
Academic medicine practice	49 (26%)
Community-based practice, multi-specialty group	61 (32%)
Community-based practice, single-specialty group	6 (3%)
Community-based practice, solo practice	45 (23%)
Community-based practice, other	31 (16%)
Percent of patients by BMI category	
Underweight	10 (5, 15)
Normal weight	30 (20, 50)
Overweight	30 (20, 40)
Obese	20 (10, 35)
U.S. region	
North Central	40 (21%)
Northeast	29 (15%)
South	66 (34%)
West	57 (30%)

Comparison of direct estimates to vignette-elicited estimates

eFigure 1. Distribution of each participant's direct estimate versus their vignette-elicited estimate. Rug plots along each axis depict marginal distributions. Reference lines indicate the estimates from each meta-analysis (blue = GMBC; red = Flegal). Both axes are presented on a log scale.



Across participants, direct estimates typically exceeded vignette estimates, in particular because direct estimates were more likely to be extremely large (e.g., *RR*>10) than were vignette-elicited estimates (eFigure 1). We speculate this is because when participants were asked to specify mortality risks rather than *RR*s, they tended to choose realistic midrange probabilities rather than extreme probabilities; this in turn would constrain the vignette-elicited estimates to a narrower range than the direct estimates. Additionally, within participants, most participants' direct estimates exceeded their vignette-elicited estimate (60% of participants). Given the joint distribution of the two types of estimates and the presence of influential outliers, it is somewhat hard to summarize their concordance numerically. However, among participants for whom both *RRs* were less than 10, the Spearman rank-correlation of the two estimates was 0.27.

Demographic and professional predictors of participants' estimates

In a set of post hoc analyses, we used multivariable median regression to estimate associations of participants' demographic and professional characteristics (as listed below in eTables 2 and 3) with the median directly-estimated and vignette-elicited *RR*. In each analysis, we excluded participants whose estimate exceeded *RR* = 10, yielding an analyzed *N*=171 (direct estimates) and *N*=190 (vignette-elicited estimates). We mean-centered the two continuous predictor variables, namely age and the percentage of a participant's patients who were overweight or obese, and expressed these variables' estimates as 10-unit contrasts. It is important to note that our sample size was not chosen to provide adequate precision for these estimates, and accordingly many of the confidence intervals are wide.

eTable 2. Predictors of the median direct *RR* estimate (*N*=171).

Characteristic	Estimate [95% CI]
Age (10-year contrast)	-0.20 [-0.27, -0.003]
Specialty	
Family practice	*Ref.*
General practice	-0.33 [-0.53, 0.19]
Hospitalist	-0.14 [-0.68, 0.79]
Internal medicine, general	-0.14 [-0.43, 0.32]
Internal medicine, specialty	-0.40 [-0.77, 0.03]
Practice type	
Academic medicine practice	*Ref.*
Community-based practice, multi-specialty group	-0.30 [-0.66, 0.02]
Community-based practice, single-specialty group	-0.42 [-0.67, -0.04]
Community-based practice, solo practice	0.10 [-0.50, 0.46]
Community-based practice, other	-0.19 [-0.97, 1.06]
Percent of patients overweight or obese (10-percentage point contrast)	-0.001 [-0.06, 0.06]
U.S. region	
North Central	*Ref.*
Northeast	0.05 [-0.48, 0.40]
South	0.30 [-0.07, 0.52]
West	-0.10 [-0.37, 0.24]

eTable 3. Predictors of the median vignette-elicited *RR* estimate (*N*=190).

Characteristic	Estimate [95% CI]
Age (10-year contrast)	0.02 [-0.03, 0.09]
Specialty	
Family practice	*Ref.*
General practice	-0.05 [-0.18, 0.02]
Hospitalist	-0.11 [-0.40, 0.49]
Internal medicine, general	0.08 [-0.05, 0.20]
Internal medicine, specialty	-0.002 [-0.21, 0.12]
Practice type	
Academic medicine practice	*Ref.*
Community-based practice, multi-specialty group	0.06 [-0.08, 0.21]
Community-based practice, single-specialty group	0.08 [-0.06, 0.18]
Community-based practice, solo practice	0.25 [0.06, 0.33]
Community-based practice, other	0.26 [0.005, 0.81]
Percent of patients overweight or obese (10-percentage point contrast)	0.02 [-0.02, 0.03]
U.S. region	
North Central	*Ref.*
Northeast	-0.10 [-0.20, 0.09]
South	-0.09 [-0.16, 0.03]
West	-0.01 [-0.07, 0.11]