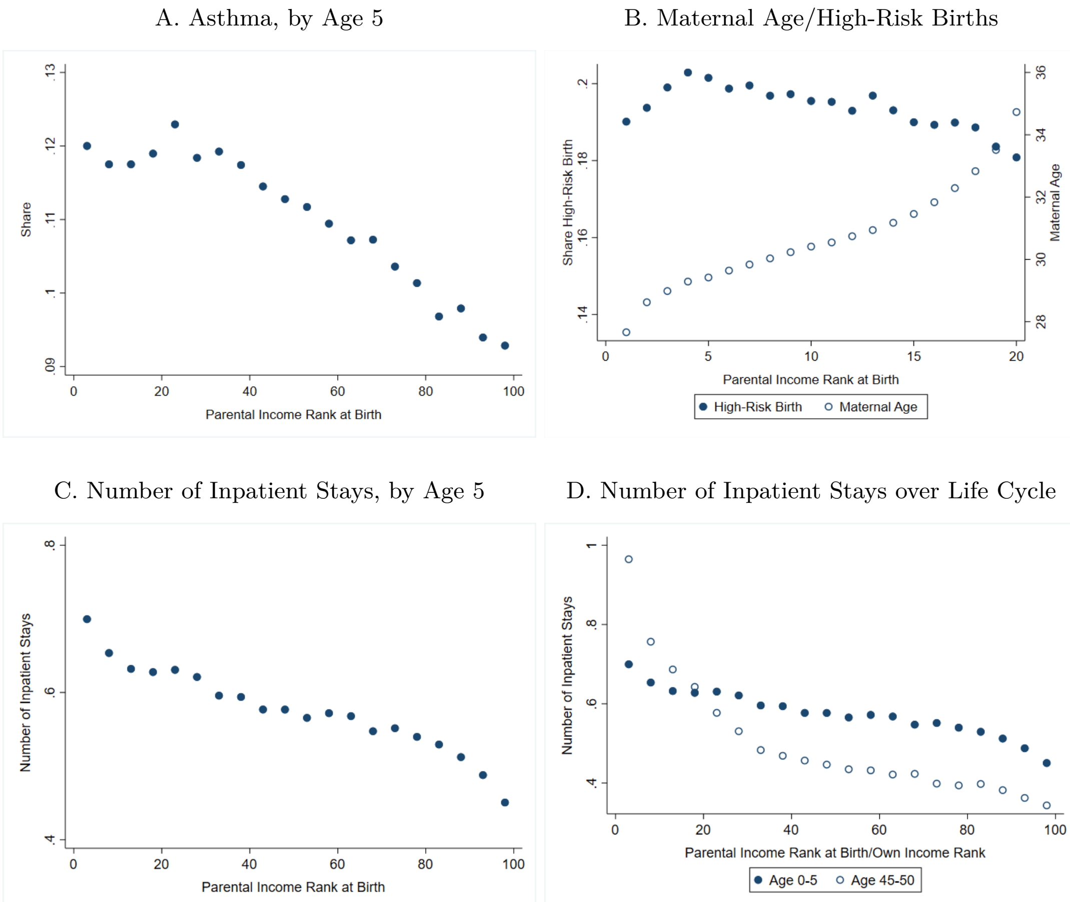
APPENDIX

A Figures and tables

Figure A1: Early Emergence of the Health-SES Gradient



Figures plot the share of individuals with relevant outcomes for each ventile of income rank. Parental income rank at birth is assigned based on the average of parental incomes in the two years before the child was born relative to other parents with children in the same birth cohort. Income rank for adults aged 45-50 in Panel D are assigned based on each individual's own income at age 40 relative to other individuals in the same gender-birth cohort. Births in Panel B are defined as high risk if the mother has any of the following conditions during pregnancy: chronic kidney diseases, diabetes, epilepsy, lung diseases, systemic lupus erythematosus, ulcerative colitis, hypertension, or urinary tract infections. Inpatient stays due to pregnancy, childbirth and the puerperium are excluded from the count of inpatient stays in Panels C and D.

Figure A2: Tobacco Exposure, *in utero*

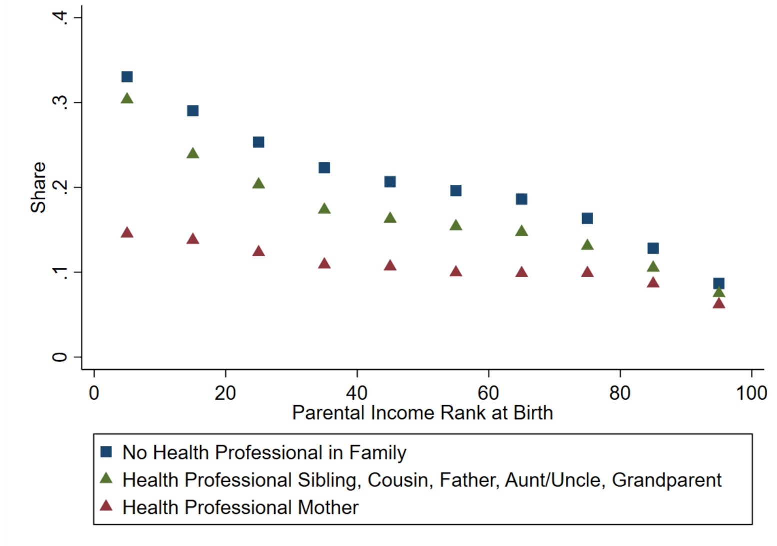


Figure plots the share of children exposed to tobacco *in utero* by decile of parental income rank at birth. Parental income rank at birth is assigned based on the average of parental incomes in the two years before the child was born relative to other parents with children in the same birth cohort. We start with the same data sample as defined in Figure 4C. The sample is split by whether an individual has a health professional relative or a health professional mother. Individuals are assigned to the sample "with a health professional" if at least one member of their broad family (sibling, cousin, father, aunt/uncle, grandparent) has a university degree in medicine or nursing. Individuals are assigned to the sample "with a health professional mother" if the mother has a university degree in medicine or nursing.

Figure A3: Share with College Degree, by Income Ventile

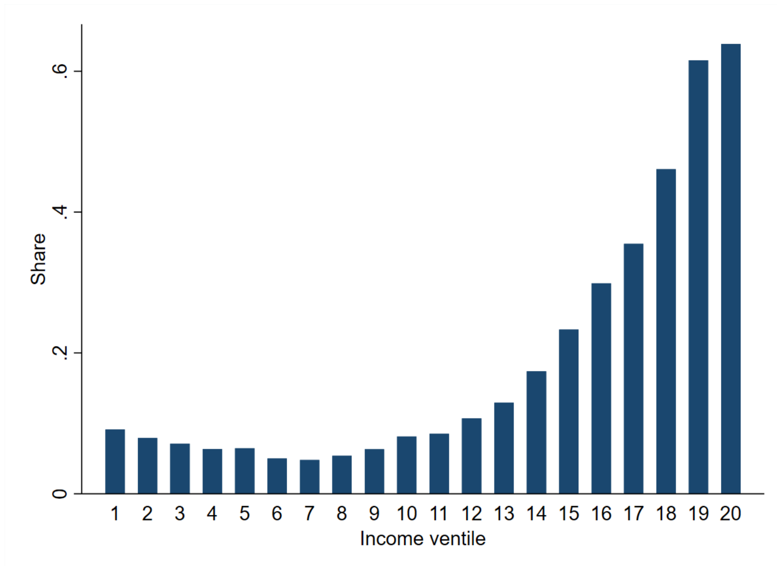


Figure plots the share of individuals with a college degree by ventile of own income rank at age 55. The sample is defined as in Figure 3A.

Figure A4: Income Distribution of the Event Study Sample

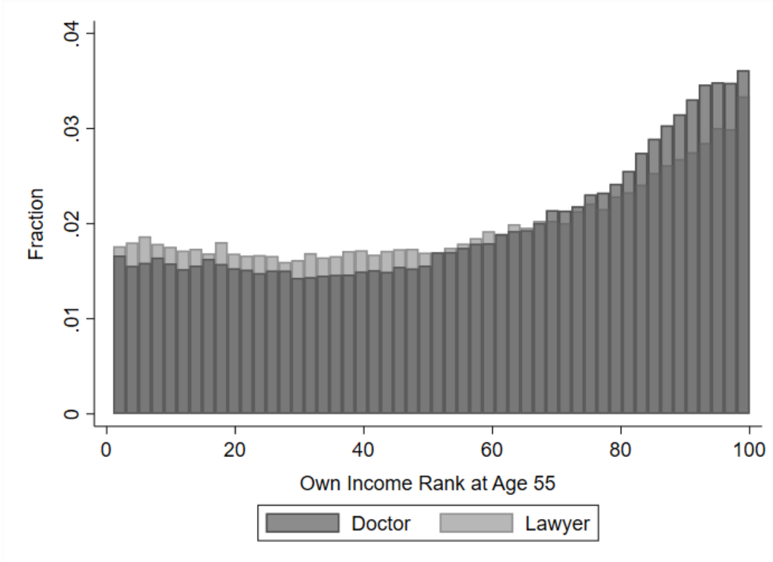
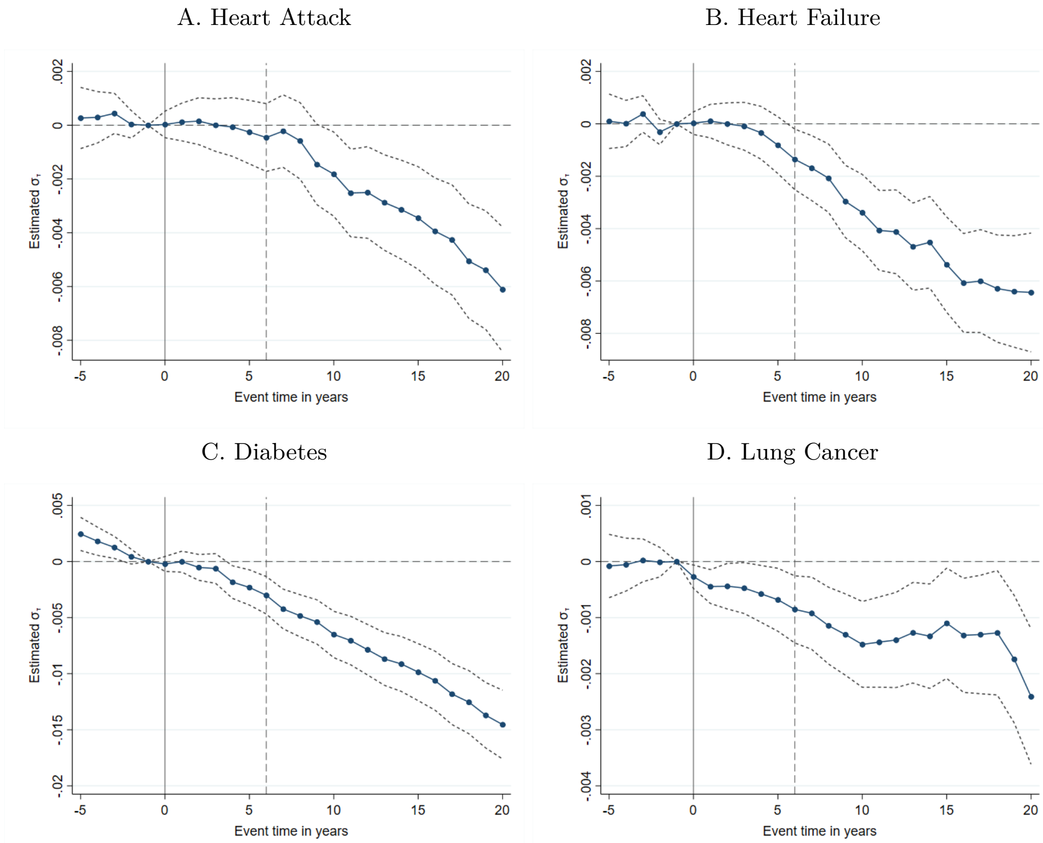


Figure plots own income rank at age 55 for the analysis sample used in the lifestyle-related conditions index event study (i.e., Figure 9B).

Figure A5: Doctor in the Family and Long-Run Health Bonus: Event Studies



Figures plot coefficients σ_τ and 95% confidence intervals against relative time τs from the event study specification in Equation 4. Sample restricted to family members born in Sweden between 1936 and 1961. In both Panels, we exclude family members who are themsevles a health professional, or have a health professional spouse. Family members with a relative became a nurse before another relative became a doctor are dropped from the "doctor" sample; family members with both a lawyer and a health professional relative are dropped from the "lawyer" sample. All panels exclude individuals that have died before the first year of clinical records—1997. The regressions are centered at event year -1, i.e., one year before the year of matriculation in a medical or legal degree. The dashed vertical line marks the average graduation time for physicians. Standard errors are clustered at the family level.

Table A1: Doctor in the Family and Health: Event Study Evidence

		Heterogeneity by					
		Income		Family Tie		Geographic Proximity	
	Pooled	Below Median	Above Median	Close	Far	Close	Far
Outcomes	(1)	(2)	(3)	(4)	(5)	(6)	(7)
A. Heart Attack							
τ=-5	0.000	0.002	-0.001	0.001	0.001	0.000	-0.000
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
τ=+10	-0.002	-0.003	-0.001	-0.002	-0.001	-0.002	-0.003
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
τ=+15	-0.003	-0.005	-0.002	-0.003	-0.003	-0.003	-0.005
	(0.001)	(0.002)	(0.001)	(0.002)	(0.001)	(0.001)	(0.001)
Mean of Dep. Var. (at τ=+15)[a]	0.025	0.028	0.020	0.024	0.027	0.024	0.025
% Effect (at τ=+15)	12.0	17.9	10.0	12.5	11.1	12.5	20.0
No. of Obs.	5,077,361	1,843,430	2,670,133	2,034,144	2,319,387	2,282,723	2,699,291
B. Heart Failure							
τ=-5	0.000	-0.000	0.000	-0.000	-0.000	-0.001	0.000
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
τ=+10	-0.003	-0.004	-0.002	-0.004	-0.003	-0.005	-0.003
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
τ=+15	-0.005	-0.005	-0.003	-0.005	-0.005	-0.006	-0.005
	(0.001)	(0.002)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Mean of Dep. Var. (at τ=+15)[a]	0.022	0.025	0.015	0.020	0.025	0.022	0.021
% Effect (at τ=+15)	22.7	20.0	20.0	25.0	20.0	27.3	23.8
No. of Obs.	5,077,361	1,843,430	2,670,133	2,034,144	2,319,387	2,282,723	2,699,291
C. Type II Diabetes							
τ=-5	0.002	0.002	0.001	0.001	0.003	0.002	0.002
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
τ=+10	-0.007	-0.005	-0.006	-0.006	-0.005	-0.008	-0.006
	(0.001)	(0.002)	(0.001)	(0.002)	(0.002)	(0.002)	(0.001)
τ=+15	-0.010	-0.006	-0.010	-0.008	-0.008	-0.013	-0.008
	(0.001)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Mean of Dep. Var. (at τ=+15)[a]	0.044	0.048	0.034	0.043	0.048	0.045	0.042
% Effect (at τ=+15)	22.7	12.5	29.4	18.6	16.7	28.9	19.0
No. of Obs.	5,077,361	1,843,430	2,670,133	2,034,144	2,319,387	2,282,723	2,699,291

Table A1: Doctor in the Family and Health: Event Study Evidence (Continued)

		Heterogeneity by					
		Income		Family Tie		Geographic Proximity	
	Pooled	Below Median	Above Median	Close	Far	Close	Far
Outcomes	(1)	(2)	(3)	(4)	(5)	(6)	(7)
D. Lung Cancer							
τ=-5	-0.000	0.000	-0.000	0.000	0.000	-0.000	0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
τ=+10	-0.001	-0.002	-0.001	-0.002	-0.001	-0.002	-0.001
	(0.000)	(0.001)	(0.000)	(0.001)	(0.001)	(0.000)	(0.000)
τ=+15	-0.001	-0.002	-0.001	-0.002	-0.000	-0.002	-0.000
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Mean of Dep. Var. (at τ=+15)[a]	0.005	0.006	0.004	0.005	0.006	0.005	0.004
% Effect (at τ=+15)	20.0	33.3	25.0	40.0	0.0	40.0	0.0
No. of Obs.	5,077,361	1,843,430	2,670,133	2,034,144	2,319,387	2,282,723	2,699,291

[a] Among family members of lawyers

Notes: Table reports coefficients σ_τ from the event study specification in Equation 4. The event time, sample restriction, and the set of family members included in the analysis are described in Section 4.4. Column (1) reports pooled results for 1936-1961 cohorts. Columns 2 and 3 split the sample by whether the individual's income rank within his/her gender-birth cohort is below or above the 50th percentile, with income measured at age 55. Individuals with a zero or negative income at age 55 are dropped from analyses. Columns 4 and 5 split the full sample by the type of family tie: parents-children in "close" family tie and aunts/uncles vs. nieces/nephews in "far." Individuals with both ties are excluded from analyses in Column 5. Columns 6 and 7 split the sample by geographic distance. Family members are classified as living "close" if their place of residence is recorded to be in the same county for more than 50% of the years between matriculation (into law or medicine) and the last year of data (2016). Coefficients are reported for event years -5, 10, and 15 (i.e. 5 years before, and 10, and 15 years after matriculation into the study of medicine or law). All regressions include the main effects and the interactions between event year dummies and the dummy for having a doctor in the (broad) family. The regressions further include the following covariates: age fixed effects, calendar year fixed effects, and individual fixed effects. Standard errors clustered by family are in parentheses.

B Identification codes for diseases and drug use

Diseases We identify diseases using the following ICD-10 diagnosis codes:

Table B1: ICD-10 Codes

Conditions	ICD10 Codes
Heart Attack	I21, I22, I23
Heart Failure	I11, I13, I50
Type II Diabetes	E11, E13, E14
Lung Cancer	C34
Addiction	F10-F19
Injury/Poisoning	S0-S9, T0-T9
Respiratory Infection	J00-J06, J20-J22
Intestinal Infection	A00-A09
Chronic Tonsil Diseases	J35
Asthma	J45
Hypertension	I10
Hyperlipidemia	E78, I70
Ischemic Heart Diseases	I20-I25
Stroke	I60, I61, I63, I66, G45, G46
Pregnancy, Childbirth and the Puerperium	O00-O99

Drug use Drug use is identified based on the following Anatomical Therapeutic Chemical (ATC) codes:

Table B2: ATC Codes

Drugs	ATC Codes
Statins	C10AA
Blood Thinners	B01AC
Diabetes Drugs	A10B
Beta Blockers	C07
Asthma Drugs	R03
Vitamin D	A11CB, A11CC
Hormonal Contraceptives	G03A excluding G03AD
HPV Vaccine	J07BM

C Related literature: Health effects of exposure to medical expertise

C.1 Early childhood visits by health professionals

A growing body of evidence suggests that early-life exposure to health expertise generates positive effects on health throughout the lifecycle. The Nurse–Family Partnership program, a program in the U.S. that provides regular home visits by certified nurses to low-income mothers from early pregnancy until the child reaches age two years, has been found to exert positive effects on both birth outcomes and health in childhood. Compared with children in control groups, treatment children experienced a lower preterm delivery rate, reductions in number of emergency room visits, fewer mental health problems, and lower mortality rates through age nine years (Agency for Healthcare Research and Quality 2014).

Outside the U.S. and the low-income population, Wüst (2012) shows that the universal home visiting program in Denmark that targeted all infants from 1937 through 1949 significantly improves infant survival rates. The authors suggests that the main driver of the program's effect was the promotion of breastfeeding and proper infant nutrition by nurses. In a related study, Hjort et al. (2017) examines the long-term impact of the Danish home visiting program. They find that treated individuals that were visited by nurses in infancy experience better health in middle ages: they have lower mortality rates, spend fewer nights at hospital, and are less likely to be diagnosed with cardiovascular diseases. Similarly, Butikofer et al. (2015) finds in Norway that well-child visits that provide physical examination and information on infant nutrition by health professionals significantly improve children's health, education and earning outcomes in adulthood. Moreover, the effects were larger for children from lower socioeconomic backgrounds. In Sweden, the country studied in this paper, Bhalotra et al. (2017) finds that the introduction of home visits and clinic care by trained health workers for infants leads to a seven percent decline in mortality risk by age 75 and the effects are larger for children born outside of marriage.

C.2 Community health workers and access to primary care

Community health workers (CHWs) have been employed in many countries to provide health-related services to their fellow community members. Although there has not been many rigorous evaluations, most existing evidence suggests that CHWs increase takeup rates of a wide variety of healthy behaviors and improve disease management in the community, notably for health behaviors such as cancer screening and immunization, and management of diseases such as asthma, hypertension, and diabetes (see e.g., Norris et al. 2006; Haines et al. 2007; Najafizada et al. 2015). In addition, by assisting individuals in navigating the health care system, CHWs have been shown to improve access to medical services, especially for the marginalized population (Felix et al. 2011; Najafizada et al. 2015).

Access to primary care in the community setting are also documented as an effective way to improve patients' health. Bailey and Goodman-Bacon (2015) uses the rollout of community health centers (CHCs) in the U.S. to study the long-term health benefits of increased access to primary health care for the poor population. The paper finds that, in one decade after CHCs were established, CHCs reduced mortality rates by 7 to 13 percent among the poor ages 50 and older, with the reduction primarily driven by the decline in cardiovascular-related deaths. Increased share of poor adults with a regular source of care and improved compliance with prescription drugs are cited as the main mechanisms for the effects of CHCs on mortality.

Moreover, a growing body of evidence suggests that exposure to health expertise on disease management significantly improves patients' health. Fergenbaum et al. (2015) present a systematic review of six randomized control trials that study effects of home visits with nurse-led guidance in disease self-care management. The paper finds that there is a trend that home visiting programs result in fewer hospitalizations, fewer emergency department visits, and better patient quality of life. Studies on nurse-led clinics that provide disease knowledge and support for disease self-care management report similar health effects: these clinics significantly reduce patient emergency department visits, hospital readmissions, and mortality rates, and improve patient medication adherence (Agvall et al. 2013; Gandhi et al. 2017; Liljeroos and Strömberg 2019).

C.3 Patient education

Most of the studies on health effects of patient education comes from the medical literature, in which patient education programs are generally found to be effective in promoting population health. For chronic diseases, Stenberg et al. (2018) reviews existing studies on impacts of education programs that target chronic obstructive pulmonary disease (COPD), asthma, chronic pain, heart disease, and diabetes patients. The paper finds that interventions that promote patient education reduce hospital admissions and emergency department visits and increase patient quality-adjusted life years. Wang et al. (2017) reviews randomized control trials that investigate effects of self-management education among patients with COPD. The paper highlights that such education programs improve patient disease-specific knowledge and quality of life, and reduce respiratory-related hospital admissions and emergency department visits. Anderson et al. (2017) focuses on the educational component of cardiac rehabilitation for patients with coronary heart diseases. The study reviews 22 randomized control trials that assigned patients to different educational interventions that ranged from face-to-face counseling to residential stays with follow-up sessions. Patients in control groups received usual medical care in cardiac rehab that comprises exercise counseling and training and psychological support. The paper finds that, although there is limited evidence that education-based interventions reduce total mortality, risk of heart attack or number of hospitalizations, these interventions result in lower risks of cardiovascular events and better quality of life. Similarly, Menichetti et al. (2018) reviews randomized control trials that promote patient engagement among older adults with osteoporosis, diabetes or cardiovascular-related health problems. The paper notes that such interventions often demonstrate positive effects on patient compliance with treatment regimens.

In the context of health behaviors, Aveyard et al. (2012) and Stead et al. (2013) show that brief medical advice and provision of behavioral or pharmaceutical assistance on smoking cessation increase the frequency and success of smoking quit attempts. Kaner et al. (2018) reviews the literature on alcohol interventions provided by health professionals and conclude positive effects of these interventions on reducing excessive alcohol consumption. For weight control, Aveyard et al. (2016) shows that a randomized trial that provides interventions delivered by trained general practitioners improves body weight control among obese patients.

Another related strand of literature examines the health effects of public health education campaigns promoted by social media. A comprehensive summary of this literature can be found in Giustini et al. (2018). Many topics have been included in these social-media education campaigns, including health behaviors such as smoking cessation, healthy diet and physical activity (Chang et al. 2013; Williams et al. 2014; Swanton et al. 2015; Chakraborty et al. 2018), and prevention and management of diseases such as diabetes and cancer (Gabarron et al. 2018; Han et al. 2018). Existing studies generally suggest positive effects of these campaigns on population health.

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