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Letter to the Editor Re: Polypill for Cardiovascular Disease Prevention in an Underserved Population by Munoz et al.

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TEXT

Muñoz and colleagues have shown that *polypills* can reduce cardiovascular risk in vulnerable, intermediate-to-high risk individuals(1). Despite the promising findings(1–2), *polypill* approaches to primary prevention in low-income populations address the tip of a much larger iceberg, particularly if used regardless of baseline risk(2–3). Fundamental causes of disease(4), like disadvantageous socioeconomic conditions, are the root cause of a variety of adverse health outcomes, including cardiovascular disease and cancer, both of which disproportionately affect poor people. Fundamental causes operate through pathways including unhealthy diets, sedentary behaviors, smoking, excessive alcohol consumption, and psychosocial stress(4). Interventions ignoring fundamental causes and focusing on proximal factors let the former affect health through other mechanisms. Lack of structural interventions may explain the decline in life expectancy observed in the US in recent years despite an 80% increase in statin use(5). We applaud efforts to improve therapeutic adherence and management of cardiovascular risk in high-risk individuals from underserved communities using *polypills*(1). However, before escalating these to larger populations at heterogeneous risks(2–3), we should work to invent a *polypill* against social injustice and poverty.

REFERENCES

1. Muñoz D, Uzoije P, Reynolds C, et al. Polypill for Cardiovascular Disease Prevention in an Underserved Population. *N Engl J Med* 2019;381:1114–23. [PubMed: 31532959]
2. Roshandel G, Khoshnia M, Poustchi H, et al. Effectiveness of polypill for primary and secondary prevention of cardiovascular diseases (PolyIran): a pragmatic, cluster-randomised trial. *Lancet.* 2019;394:672–683. [PubMed: 31448738]

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3. Wald NJ, Law MR. A strategy to reduce cardiovascular disease by more than 80%. *BMJ*. 2003;326:1419. [PubMed: 12829553]
4. Link BG, Phelan J. Social Conditions As Fundamental Causes of Disease. *J Health Soc Behav* 1995;35:80–94.
5. Salami JA, Warraich H, Valero-Elizondo J, et al. National Trends in Statin Use and Expenditures in the US Adult Population From 2002 to 2013: Insights From the Medical Expenditure Panel Survey. *JAMA Cardiol*. 2017;2:56–65. [PubMed: 27842171]

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