

Social vaccines to resist and change unhealthy social and economic structures: why we need them and how they would work

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Summary points

- The term "social vaccine" is designed to encourage the bio-medically orientated health sector to recognize and take action on the distal social and economic determinants of health
- This concept builds on a long tradition in social medicine as well as on a biomedical tradition of preventing illness through vaccines that protect against disease
- Social vaccines would be designed to change the social and economic structural conditions that make people and communities vulnerable to disease and to develop their ability to protect their health
- Examples of social vaccines provided are restoring land ownership to Indigenous peoples, regulating the advertising of harmful products, and providing for progressive taxation to fund education, social and health **interventions**

Introduction

There is a long tradition in public health that has recognised and called for interventions on the social and economic determinants of health, going back to at least the work of the nineteenth century Silesian physician Virchow. This tradition is reflected in the World Health Organisation's 1978 Alma Ata Declaration on Primary Health Care, and the Ottawa Charter for Health Promotion. The People's Health Movementiv has been a strong advocate for tackling the economic, social, political and environmental determinants of health since its formation in 2000, especially evident in the People's Charter for Health. The work of the Commission on Macroeconomics and Health and of the Commission on the Social Determinants of Health also provide strong evidence of the importance of structural determinants on health.

The accumulating evidence was summed up by Rose's conclusion, based on decades of epidemiological work: "the primary determinants of disease are mainly economic and social and therefore its remedies must also be economic and social. Medicine and politics cannot and should not be kept apart. A significant body of evidence documents how such distal determinants as the structure of the political economy, the nature of the labour market and the nature of social life have an impact on health. These same determinants also explain the persistence of health inequalities according to class, gender and race. Despite this evidence much of the effort and resources devoted to preventing disease and promoting health focuses on the more immediate and proximal behavioural and biological determinants of health. This is true in rich and poor countries.

This paper explores the value of adopting a metaphor from medicine, the vaccine, as a mechanism to promote the recognition of the importance of action on the economic and social determinants of health. It does this by introducing and defining the concept of social vaccines, including a discussion of different *types* of social vaccine and by providing three examples of how social vaccines might be constructed and implemented. It concludes by arguing that the concept is worthy of further discussion, research and testing with policy **makers**.

What is a social vaccine?

The metaphor is designed to shift the dominant biomedical orientation of the health sector towards the underlying distal factors that cause disease and suffering. The value of vaccines to protect people from diseases by causing an immunological response is widely accepted and understood. Few question their value as a cost-effective intervention. The use of the vaccine metaphor is designed to promote the implementation of social and economic interventions that can (just as medical vaccines do) help to protect people from disease and illness through measures, often universal, applied across populations.

The term has been used previously. For example, the UN's International Labour Organisation^{xiii} and Narayan et al ^{xiv}, as part of the battle against HIV/AIDS, have advocated for a social vaccine in the form of social inclusion, and income and job security for people living with HIV/AIDS.

At the most recent Global Forum on Health Research the People's Health Movement hosted a session at which the concept of social vaccines was explored in detail. Concern was expressed that the use of the term vaccine may result in an unwarranted medicalisation of social factors. It may give the impression that social and economic interventions can be constructed in technological terms when in fact they often entail complex political and cultural dimensions. While this risk has to be guarded against, employing the social vaccine metaphor to engage policy makers and practitioners who are comfortable with the biomedical paradigm was regarded as beneficial. The session concluded that the notion of social vaccines could be helpful provided that such "vaccines" were designed to truly offer comprehensive approaches to tackling the underlying determinants of health and were not seen as "magic bullets", nor as social intervention imposed on communities from outside and without their involvement. Thus we propose the following definition:

A social vaccine is an intervention or set of interventions, often universally applied, aimed at mitigating the structural social and economic conditions that make people and communities vulnerable to disease, illness and trauma. While medical vaccines help develop immunity against disease, social vaccines develop the ability of communities to resist and change social and economic structures and processes that have a negative impact on health.

Table 1 provides a list of types of social vaccines with some examples. Each of these types of social vaccine is aimed at intervening along the chain of causation that results in ill health and health inequities social vaccines work to protect the whole population. This chain of causation is summarised in the framework developed by the Commission on the Social Determinants of Health^{xvi} which sees ill-health (and unequal health outcomes) as being produced, in part, by the underlying social stratification. At each point of the chain social vaccines can contribute to reducing inequity and poor population health outcomes by:

1. Decreasing social stratification (e.g. taxes on wealth)
2. Decreasing exposure to factors that threaten health (e.g. legislation to control tobacco and alcohol sales and the arms trade).
3. Reducing the vulnerability of people to health damaging conditions & strengthening the community and individual level factors which promote resilience (e.g. anti-discrimination legislation).
4. Providing accessible, equitable and effective health care (e.g. universal public health **system**).

Practical examples of social vaccines

The definition of social vaccine we have offered places prime importance on interventions that affect the structures within which people live and work and which, over time, have significant effects on health outcomes and their distribution in the population. We provide three examples of how social vaccines could work in practice.

Land rights and subsistence

In many countries around the world the Indigenous owners of land have had that land removed through the processes of colonisation and industrialisation. They have been dispossessed and forced to change from collective patterns of land ownership, which built social capital and minimized inequities, towards patterns of land ownership that are unequal and based on private and individualised forms of ownership. Across the world report that the loss of control over land has had a devastating impact on the health of Indigenous peoples. In the words of an Australian Aboriginal leader:

Our identity as human beings remains tied to our land, to our cultural practices, our systems of authority and social control, our intellectual traditions, our concepts of spirituality, and to our systems of resource ownership and exchange. Destroy this relationship and you damage – sometimes irrevocably – individual human beings and their health.^{xvii}

Combine such perspectives with the insights of the work of Marmot^{xviii} concerning the importance to health of control over one's life trajectory, and then the centrality of land reform becomes evident. Australian Aboriginal people living on their land and with a continuous relationship appear to have better physical and mental health^{xix}. A social vaccine would construct land restitution as an intervention to promote and protect the health of Indigenous peoples.

In many countries unequal land distribution is aggravated further by changes in farming practice^{xx}. For example in India recently the large numbers of suicides among farmers in India has been linked to unfair agricultural development policies that support cash crops over food crops^{xxi}. In Kenya thousands of dairy farmers have been bankrupted as a result of cheap imports of milk products from Europe, resulting from massive subsidies to the European dairy industry combined with reduced import tariffs necessitated by "free trade" agreements^{xxii}. A social vaccine would construct agricultural policies aimed primarily at sustaining local livelihoods (rather than producing cash crops through large commercial farming enterprises), the removal of unfair agricultural subsidies to industrial farmers in the North and the use of trade protection measures to protect small farmers in poor countries as key interventions.

Restriction and regulation of corporate advertising

Many behaviours that result in poor health arise in part from unhealthy and unethical advertising campaigns. Cigarette smoking and the substitution of breast milk with infant feeding substitutes are two examples where advertising and marketing have actively encouraged people to adopt unhealthy practices. In both cases, the regulation of advertising through international codes has helped to protect people from unhealthy practices demonstrating the use of regulation as a potent form of 'social vaccine'. Today, considerable concern is being expressed in high and low income countries about the rising rates of obesity and the increase in chronic disease such as diabetes and cardiovascular disease and joint problems^{xxiii}. In rich countries the rising prevalence of obesity in children is of particular concern. Food manufacturers spend massive amounts on advertising food that is often high in fat and sugar. In the UK, for

instance, one soft drink manufacturer spent £23 million on advertising in 2002, which is about ten times the entire national budget for nutritional health promotion^{xxiv}. The advertisements are generally designed to appeal to children, often featuring promotional free toys. A social vaccine would regulate the corporate food industry so as to protect children from this unhealthy marketing by, for example, insisting on correct nutritional messages or banning the advertising of food on television when children are most likely to be watching.

Progressive taxation for social security

Poverty and extremely unequal distribution of wealth and income remain the biggest underlying causes of premature morbidity and mortality. They cause malnutrition and increased exposure and vulnerability to disease, illness and trauma, and deny billions of people access to health care. In much of the developed world, one of the most significant advances made in promoting good health was the introduction of social security nets, often funded through progressive taxation. Social security and the use of tax to fund are a form of social vaccine that protects the poor from the various diseases of **poverty**.

In a world where most low income countries lack any real prospect of raising adequate public revenue to fund essential social security nets, greater consideration needs to be given to the generation of public finance at the global level. The World Commission on the Social Dimensions of Globalization^{xxv} saw that taxation could be a powerful tool by which to make globalisation fairer and suggested a tax on international financial transactions and taxes on the use of natural resources, especially those that impinge upon the global commons such as the planet's carbon sinks. They also recommended exploring the means of establishing a framework for global taxation, the revenue from which could be used to make the outcomes of globalisation fairer.

Conclusion

This paper has argued that action on the social and economic determinants of health can be advanced by adopting a 'social vaccine' metaphor which applies the logic of traditional medical vaccines by calling for interventions that will protect populations from the structural causes of illness and health inequities.

Compared to the resources invested in researching vaccines for just a single disease the investment in research relevant to providing evidence for and testing social vaccines has been minimal^{xxvi}. Hence we conclude this paper by making a call for more research relevant to social vaccines. This is especially required because the causal links between most structural determinants and health outcomes are complex and embedded in a web of political, economic, environmental and social factors. Research designs are required that can accommodate this complexity. An improved understanding of the ways in which actions to alter its underlying determinants can lead to improvement in health is likely to improve health equity worldwide.

Table 1: Types of Social Vaccines

Types of 'social vaccine'	Examples
Taxation and other forms of progressive financing to allow for the universal provision of essential health, education and social services.	<ul style="list-style-type: none"> • Progressive income tax, wealth taxes and death duties at the national level • New forms of innovative taxation at the global level to create global public finance e.g. currency transaction taxes
Social sector policies and social security interventions aimed at eradicating the ill health of poverty	<ul style="list-style-type: none"> • Universal social welfare benefits • Conditional cash transfers • Free essential health care • Free public education
Regulation to protect people from: <ul style="list-style-type: none"> • the harms associated with commercial advertising such as promotion of tobacco, breast milk substitutes, unhealthy food • the negative externalities caused by private / corporate activity such as pollution or depletion of natural resources 	<ul style="list-style-type: none"> • Framework Convention for Tobacco Control • International Code on the Marketing of Breastmilk Substitutes • Social, health and environmental impact assessments • Legal instruments and an effective judicial system to allow class-action suits against corporate malfeasance
Economic protection for poor country economics, small business, small hold farmers etc from unfair competition	<ul style="list-style-type: none"> • Tariffs aimed at preventing the dumping of cheap, subsidized agricultural produce from rich countries onto developing country markets
Anti-discrimination legislation / legal rights	<ul style="list-style-type: none"> • Land rights • Housing tenure security • Anti-gender and race discrimination legislation
Systems of political accountability	<ul style="list-style-type: none"> • Democratic media • Strong civil society / watchdogs / voice for the poor • Research and evaluation on social vaccines especially social sciences and social epidemiology.

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(accessed 25th February 2007) by following links to authors Fran Baum, Babirye Betty Ravi Narayan, Iman Nuwayhid, Arturo Quizhpe, Vikram Patel, Huda Zurayk A background paper for the sessions was prepared exploring the dispersed literature on this theme
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