Knowing how non communicable diseases are caused does not mean we can prevent them

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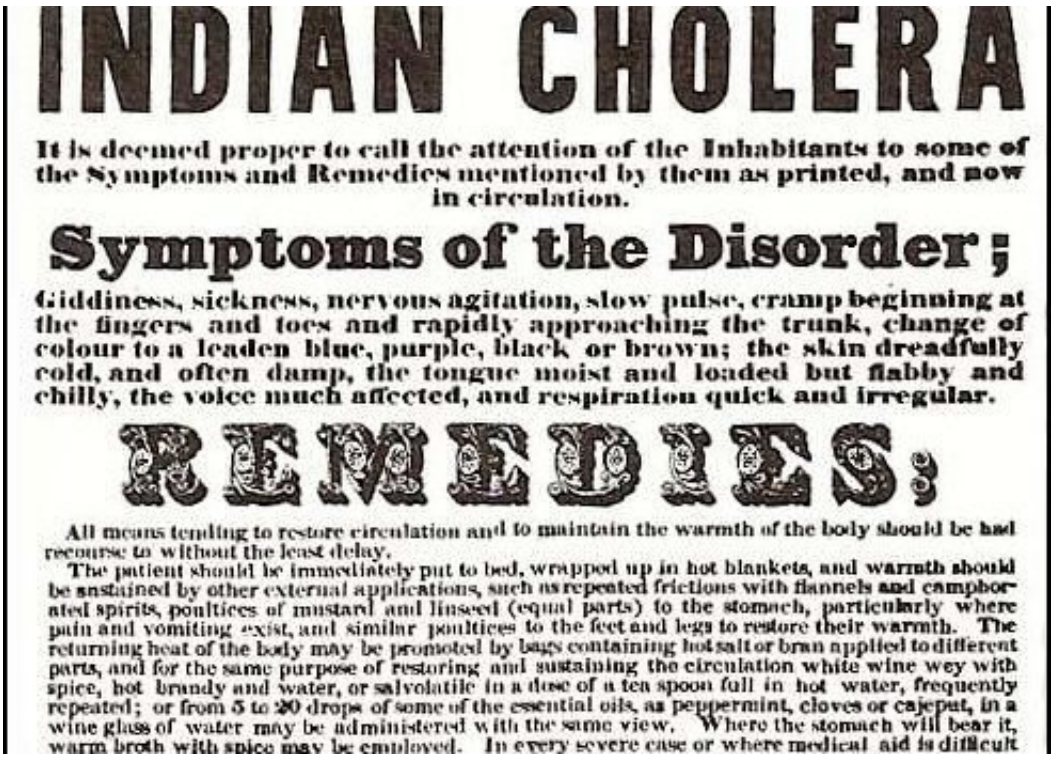

INDIAN CHOLERA

It is deemed proper to call the attention of the Inhabitants to some of the Symptoms and Remedies mentioned by them as printed, and now in circulation.

Symptoms of the Disorder;

Giddiness, sickness, nervous agitation, slow pulse, cramp beginning at the fingers and toes and rapidly approaching the trunk, change of colour to a leaden blue, purple, black or brown; the skin dreadfully cold, and often damp, the tongue moist and loaded but flabby and chilly, the voice much affected, and respiration quick and irregular.

REMEDIES;

All means tending to restore circulation and to maintain the warmth of the body should be had recourse to without the least delay.

The patient should be immediately put to bed, wrapped up in hot blankets, and warmth should be sustained by other external applications, such as repeated frictions with flannels and camphorated spirits, poultices of mustard and linseed (equal parts) to the stomach, particularly where pain and vomiting exist, and similar poultices to the feet and legs to restore their warmth. The returning heat of the body may be promoted by bags containing hot salt or bran applied to different parts, and for the same purpose of restoring and sustaining the circulation white wine wey with spice, hot brandy and water, or salvolatile in a dose of a tea spoon full in hot water, frequently repeated; or from 5 to 20 drops of some of the essential oils, as peppermint, cloves or cajeput, in a wine glass of water may be administered with the same view. Where the stomach will bear it, warm broth with spice may be employed. In every severe case or where medical aid is difficult

Credit: University of Cambridge

Efforts to prevent non communicable diseases (NCDs) are dominated by a simple idea: once you know the causes of a disease you can do effective prevention. So behaviours like eating, consuming alcohol, not taking exercise and smoking have been the centre of policy attention for decades These behaviours, their associated risks, the disease and its prevention are treated as if they are part of the same linear causal chain.

But a new paper, published in Sociology of Health and Illness by Professor Mike Kelly, at the Primary Care Unit, University of Cambridge and Dr Federica Russo, Department of Philosophy at the University of Amsterdam, explains that the mechanisms which cause disease and the mechanisms of effective prevention are often very different.

"Even if we know exposure is dangerous, if we don't know how to effectively reduce exposure, the most elaborate knowledge of the cause won't help you to prevent it," Mike Kelly said.

A simple history of public health in the UK, involving the steps taken to reduce exposures to pathogens, by for example the introduction of clean water and improved drains, can be read as "knowledge of cause leads to effective prevention". But Kelly and Russo show that the history of improving sanitation actually reveals a long slow war of attrition against vested interests of all kinds. Progress was slow and hard-won. The first Professor of Public Health in Glasgow, William Gairdner, ruefully observed to his medical students as long ago as 1862 that The Times and The Spectator published articles showing "there was not and never had been, any such thing as contagion at all; that it was all a fiction of the medical mind, devised long ago to frighten people, and embarrass commerce".

Steps to cut tobacco-related deaths and morbidity also took many decades to work. To succeed, they needed to draw on detailed knowledge of, amongst other things, addiction and of the tactics of the tobacco industry – in other words how to do effective prevention – not just knowledge of the biological processes that happen when tobacco smoke enters the lung.

"If we seek simple solutions to public health problems, such as obesity, we will fail. The history of public health shows that the relationship

between the causes of the disease and the measures taken to prevent that disease was often far from simple," Mike Kelly said.

Public health interventions focused on individual behaviour and its associated risks do seem to offer easy solutions, especially to policymakers in the grip of short-term political cycles. But they drive attention away from the broader factors at work.

Successful public health interventions usually need to engage whole populations and to confront powerful vested interests. Kelly and Russo explain that complex thinking is required to confront the "anti-health forces whose profit margins depend on selling the population salty, fatty, sugary foods of low nutritional value, on flooding the market with cheap alcohol, or on providing carbon-greedy forms of private transport at the expense of walking or cycling'.

Sociologists and philosophers are underrepresented in the way that policy is shaped on public health. They could contribute to public health by determined forays into Whitehall and Westminster to engage with policymakers and those who form opinion on public health topics.

Kelly and Russo suggest that a long haul approach to policy-making could be enabled by the uncoupling of public health from the political cycle. Something analogous happened a few years ago when the responsibility for setting interest rates was removed from the Chancellor and given to a committee of the Bank of England. The authors argue that unless and until we see this uncoupling, policy will be shaped by simple solutions based on a short term political cycle derived from an overly simple reading of the history of public health.

More information: Michael P. Kelly et al, Causal narratives in public health: the difference between mechanisms of aetiology and mechanisms of prevention in non-communicable diseases, *Sociology of Health &*

Illness (2017). DOI: 10.1111/1467-9566.12621

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