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Shoe leather epidemiology in the age of COVID: lessons from Cuba

John Ashton
Independent Public Health Consultant, Liverpool L25 5JF, UK
Corresponding author: John Ashton. Email: johnrashton1@icloud.com

The failure of the UK government to follow the advice of the World Health Organization to 'Test, Test, Test' for COVID-19 has cost the country dear. Having been slow to treat the pandemic with due urgency once the initial Public Health Emergency of International Concern had been called at the end of January, the country of John Snow and the Broad Street pump was left playing an embarrassing and fatal game of catch-up as the disease spread.

For those trained in the proud tradition of UK public health, this disaster has proved all the more galling in its neglect of the basic lessons of 1854 and the Soho cholera epidemic, when shoe leather epidemiology first demonstrated its worth. It was from walking the streets from house to house and business to business that Snow was able to demonstrate the concentration of cases among those drinking water from the street pump and persuaded the select vestry to remove the pump handle.

This very practical and local approach to public health provided the leit motif for its effective practice for generations until the disastrous reorganisation of the National Health Service, and with it public health, in England in 2013. The creation of a flawed agency, Public Health England, with its unremitting centralisation and undermining of local and regional public health, paved the way for the dramatic failure of response to COVID-19 in 2020. The inability to undertake large-scale testing for the coronavirus and to follow through with contact tracing, triaging, isolation and treatment followed as light follows day. Local capacity of the skilled workforce and local knowledge was run down and along with it the ability to mobilise the rich network of laboratory assets. Over-dependence on prominent London figures, institutions and laboratories, together with fly-by-night private sector contractors operating from anonymous call centres, were no substitute for hands-on experience with local knowledge and established networks of collaboration. The result was chaos and incompetence.

Comparison with one country that has performed exceptionally in response to the emergency illustrates what might have been possible had we not seemed hellbent on destroying a functioning public health system and had instead played to national strengths in primary care. Cuba has long been renowned for its ability to turn in world beating health statistics while continuing to struggle economically. With a health system grounded in public health and primary care, the country invests heavily in producing health workers who are primarily trained to work in the community, with only a small proportion going on to specialise in hospital medicine. Their efforts with COVID-19 have been outstanding.

When China first reported that a new coronavirus had been identified as the cause of the emerging epidemic in Wuhan in January 2020, Cuba promptly drew up a cross-government contingency plan and was ready to act. The first cases were confirmed among three tourists from the high disease incidence area of Lombardy in Italy on 11 March, the same day that World Health Organization declared that COVID-19 qualified as a pandemic, the patients were immediately hospitalised and the plan put into action. Tens of thousands of family doctors, nurses and medical students screened all homes in the country for cases on foot, with testing, tracing and quarantining suspected cases in state-run isolation centres for 14 days. The epidemic was soon contained after a total of 2173 confirmed cases and 83 deaths with no reported deaths throughout the first week in June. In addition, Cuba had been one of the first countries to send health workers to support the control of the epidemic in Wuhan, back in January, just one example of its unrivalled commitment to international solidarity in humanitarian disasters.

As the pandemic in the UK enters a new phase and we wait to see whether there will be a second and third wave, as happened in the Spanish flu of 1918–1920, or whether it just disappears as happened with its close relative SARS in 2003, the time for reflection has already begun. Let us hope that we can put to one side the Little England mentality that has been so much in evidence in the handling of COVID-19 and be willing to learn from others who still understand and value the 'shoe leather epidemiology' that was invented in Broad Street 170 years ago!

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