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## What will it take for a new sanitary revolution in the UK?

Sanitation is an essential public health service, so where is the outrage at the pollution of England's waterways, ask these authors

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Recently the dire state of the UK's rivers was highlighted once again when rowers in the annual Oxford vs Cambridge boat race were taken unwell. They criticised the levels of sewage and high rates of e-coli in the river Thames.<sup>1</sup> The organisers of the boat race declared "bathing is prohibited" and warned against throwing the cox into the water as is tradition.<sup>2</sup>

It had echoes of a visit that Queen Victoria made to Cambridge University back in 1843. Gwen Reverat, a local historian recounts:

*"There is a tale of Queen Victoria being shown over Trinity by the Master, Dr Whewell, and saying, as she looked down over the bridge: 'What are all those pieces of paper floating down the river?' To which, with great presence of mind, he replied: 'Those, ma'am, are notices that bathing is forbidden.'"*<sup>3</sup>

But maybe we need to cast our minds back to the time of Queen Victoria and the sanitarian revolution during her reign. It was the 1848 Public Health Act that gave England and Wales the possibility of clean water and sanitation, but it wasn't until 1875 that there were laws compelling local authorities to build sewers and provide clean water supplies.<sup>4</sup>

In England and Wales, we have taken clean water supplies for granted for over a century. We assume that we will have clean water to drink, and that it is separated from our sewage system, so we do not consume water contaminated with viruses and bacteria from human faeces.<sup>5</sup>

In the early 1990s the then Conservative government privatised water companies. When she was prime minister, Margaret Thatcher expected privatised water companies to deliver the investment needed to protect water and sewerage services into the future.<sup>6</sup> Six months into the privatisation in 1991, large numbers of households in the poorest communities of England were disconnected from the domestic water supply, due to non-payment of their water bills. Many were completely unaware that their water bills were no longer included in their regular tenancy rental payments and that they had to pay themselves. There were health concerns about the potential risk of water disconnection associated with the Hepatitis A and Shigella outbreaks which were prevalent at that time.<sup>7</sup> However, a relationship between water disconnection and infectious disease was never proven.<sup>8</sup> But, the policy provoked international interest, reflecting poorly on the place many saw as the home of public health and common sense.<sup>9</sup> Disconnection of water supplies was never permitted in Scotland and was made illegal by the Labour Government in 1997.<sup>10</sup>

The promise of private investment in improved water supply and waste services simply has not been delivered.<sup>11</sup> Private water companies have borrowed recklessly, or deliberately, with the promise of new investment in water infrastructure. They have diverted the funds they have been allowed to borrow by City financial institutions into shareholder payments and exorbitant salaries for senior managers. This has left the companies with enormous debts, and the public has seen deteriorating water quality and sewerage infrastructure.<sup>11 12</sup>

Companies have sought to make customers pay larger bills for the needed infrastructure, only to meet with public anger, and at last, concern from government and regulators.<sup>13</sup> Any expectation of charging consumers more would compound the problems of water poverty, still affecting many of the people first impacted during the 1990s. In 2020, the industry committed to a target of eliminating water poverty by 2030—a promise that looks shallow, and undeliverable, only four years after it was made.<sup>14</sup>

Public health authorities have been slow in expressing concern about the unfolding disaster. Chris Whitty, the chief medical officer for England co-authored an expression of concern with the chief executives of the Environment Agency and OFWAT.<sup>15</sup> The Association of Directors of Public Health has issued an explainer.<sup>16</sup> According to the Guardian, the opposition Labour Party has found an increase in hospital admissions from water borne infections associated with sewage pollution.<sup>17</sup> The number of people admitted to hospital with diseases transmitted via waterborne infection has increased from 2,085 in 2010-11 to 3,286 in 2022-23.

So where is the outrage? Where is the professional concern about this disaster?<sup>18</sup> This is a blight on nearly 200 years of our public health pedigree. Clean water and disposal of our sewage remains our essential public health service.<sup>5</sup> In 2007, doctors voted clean water and sanitation the most important medical intervention in the last 150 years.<sup>19</sup>

Climate breakdown is bringing additional threats to water availability and sewerage systems, through extremes of temperature, sudden and catastrophic rainfall and flooding, droughts, storm surges and sea level rise.<sup>20</sup> All these impact on water and sewerage management and increase the risk of water borne infection. These have been known risks for over 30 years, and yet our water companies have continued to divert funds to their senior executives and shareholders and done nothing to protect the water and sewerage systems. We must protect our water supplies, keep our wastes separate from our drinking water, and protect our coasts and river waters for

## ourselves, and for future generations. We must protect our collective future.

**Competing interests:** JM is honorary professor of public health, University of Wolverhampton; visiting professor of public health, Chester University; past president, United Kingdom Faculty of Public Health (UKFPH); immediate president, Association of Schools of Public Health in the European Region (ASPHER); and vice president, Global Network for Academic Public Health (GNAPH). He is an elected, unpaid official of GNAPH, and formerly an elected, unpaid official of the UK Faculty of Public Health and the Association of Schools of Public Health in the European Region. PS is honorary professor of Public Health Staffordshire University, chair of North Edgbaston Labour Party Branch, vice chair of the West Midlands Socialist Health Association, formerly an elected, unpaid official of the UK Faculty of Public Health and former chair of the UK Public Health Register.

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