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## **Making the invisible visible: Data, leadership, and the future of public health**

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**Making the invisible visible: Data, leadership, and the future of public health**

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Abstract:	To protect health and advance equity, public health leadership must be grounded in data that make the invisible visible. This piece argues that strengthening inclusive data systems, fostering ethical data literacy, and valuing community knowledge are essential for identifying disparities, guiding targeted action, and upholding the right to health for all

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Plain Language Summary Title:

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To protect health and advance equity, public health leadership must be grounded in data that make the invisible visible. This piece argues that strengthening inclusive data systems, fostering ethical data literacy, and valuing community knowledge are essential for identifying disparities, guiding targeted action, and upholding the right to health for all

For Peer Review

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3 Title: Making the invisible visible: Data, leadership, and the future of public health  
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## 6 **Summary**

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9 To protect health and advance equity, public health leadership must be grounded in data that make  
10 the invisible visible. This piece argues that strengthening inclusive data systems, fostering ethical data  
11 literacy, and valuing community knowledge are essential for identifying disparities, guiding targeted  
12 action, and upholding the right to health for all.  
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## 17 **Making the invisible visible: Data, leadership, and the future of public health**

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21 Public health has long worked behind the scenes—preventing diseases, managing risks, and  
22 promoting environments favourable to health. But invisibility, while sometimes a sign of success, can  
23 also mean that the systems and workforce most responsible for safeguarding our health are under-  
24 resourced, undervalued, and not sufficiently prepared to meet emerging challenges. Today, with  
25 mounting pressures on health systems and rising inequity, the question is not only how we protect  
26 public health, but how we make it visible—strategically, ethically, and equitably.  
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34 The COVID-19 pandemic made this point painfully clear. In the early weeks, surveillance systems  
35 tracked case counts, hospitalisations and deaths. While crucially informative, these aggregates told  
36 only part of the story. The uneven burden of the pandemic became fully visible only through  
37 disaggregated data—by deprivation and geography in France<sup>1</sup>, or by ethnicity, and neighbourhood in  
38 the UK or US<sup>2,3</sup>—, revealing that the most disadvantaged communities faced the highest risks and the  
39 weakest protection. Disaggregated data do not just expose inequities—they enabled more targeted  
40 action: mobile vaccine units in under-vaccinated areas, culturally tailored messaging, and surge  
41 funding to overstretched hospitals or community clinics.  
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50 This is the value of data-informed leadership. It is not about being driven by numbers alone, but about  
51 asking better questions and using evidence—quantitative and qualitative—to guide action. <sup>4</sup> It means  
52 recognising what stories are missing from the data and whose health is most at risk.  
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57 Consider maternal health. In the UK, Black women are four times more likely to die during pregnancy  
58 or childbirth than white women<sup>5</sup>; in the US, the figure is more than two and a half times. In France,  
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3 data have shown elevated maternal mortality among women born in sub-Saharan Africa, who also  
4 face higher risks of severe maternal morbidity and barriers to timely care.<sup>6</sup> It was only when linked  
5 datasets and stratified indicators were implemented that structural inequities in access, quality of care,  
6 and outcomes became visible—enabling responses such as the implementation of actions leading to  
7 improved perinatal pathways, cultural mediation services, and targeted continuity-of-care models.  
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14 Climate change offers another urgent example.<sup>7</sup> Cities like Los Angeles and Paris are using satellite  
15 imagery, air quality sensors and heat vulnerability indices to identify urban “hot spots”—  
16 neighbourhoods where rising temperatures pose the greatest health risks due to poor housing, lack of  
17 green space or systemic disinvestment.<sup>8,9</sup> By layering public health data with climate and  
18 socioeconomic indicators, these cities have piloted interventions such as cooling centres, heat health  
19 warning systems and urban greening. These efforts were only possible because data made invisible  
20 risks visible—and leaders did take action.  
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28 Yet today, that visibility is under threat. High-income, liberal democracies currently experience  
29 challenges to public health investment: essential public health functions face staffing reductions,  
30 budget cuts and increasing political pressure.<sup>10</sup> Public dashboards tracking infectious diseases,  
31 addictions, and chronic conditions have been paused or removed altogether. Some governments have  
32 withdrawn funding from surveillance systems or research programmes that highlight health inequities.  
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38 These actions don't just reduce transparency—they limit our ability to respond, target support and  
39 build public trust.  
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45 This makes the work of organisations like the World Health Organization or the American Public  
46 Health Association (APHA) even more vital. Through its *For Our Health* initiative, APHA is defending  
47 science, promoting evidence-informed policy and mobilising a coordinated public health voice.<sup>11</sup> But  
48 advocacy alone is not enough. Visibility must be built into systems and anchored to leadership.  
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52 So how do we move from invisible to visible?  
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57 First, we must protect and enhance inclusive data systems—those capable of meaningful  
58 disaggregation by age, gender, geography, disability, income, immigration status, and other equity  
59 indicators—and ensure they evolve with robust privacy protections and strong public trust.  
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3 Second, we need data literacy and leadership at all levels. Public health professionals must be  
4 supported not only to analyse data, but to interpret it ethically, in context and in conversation with the  
5 communities they serve. The "Cost of Living Crisis in Wales" is one concrete illustration of a strategy  
6 to integrate health and social care data, enabling targeted interventions that address both immediate  
7 needs and long-term health outcomes in the face of economic adversity.  
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13 Third, we must expand what we count as data. Community stories, lived experiences, reported in good  
14 faith, and qualitative research must be recognised as valid and essential forms of evidence. Since the  
15 1980s, the activism of representatives of people living with HIV/AIDS exemplifies how lived  
16 experiences, collective narratives, and community-reported outcomes can drive critical changes in  
17 shaping effective interventions, drug approval processes, and public health policies.  
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24 Visibility is not just about dashboards—it is about power and rights. Who gets counted, who is heard,  
25 and whose health is prioritised reflect deeper questions of whose lives are valued, and whose voices  
26 shape decisions. A visible public health system is one that recognises health as a right, not a  
27 privilege—and ensures no one is left in the shadows.  
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33 We cannot improve what we cannot see. By strengthening data systems, empowering public health  
34 leadership, and broadening our understanding of evidence—including lived experience—we can make  
35 public health not only more visible, but more just and more effective. In doing so, we make it possible  
36 to act earlier, respond more equitably, and uphold the right to health for all.  
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## 42 **References**

- 43  
44  
45 1. Vandentorren S, Smaïli S, Chatignoux E, et al. The effect of social deprivation on the dynamic of  
46 SARS-CoV-2 infection in France: a population-based analysis. *Lancet Public Health* 2022;7(3):e240–  
47 e249.
- 48 2. Suleman M, Sonthalia S, Webb C, et al. *Unequal pandemic, fairer recovery: The COVID-19*  
49 *impact inquiry report*. London: The Health Foundation; 2021.
- 50 3. Public Health England. *Disparities in the risk and outcomes of COVID-19*. London: Public Health  
51 England; 2020.
- 52 4. Galea G, Ekberg A, Ciobanu A, et al. Quick buys for prevention and control of noncommunicable  
53 diseases. *The Lancet Regional Health - Europe* 2025:101281.
- 54 5. Knight M, Bunch K, Patel R, et al. *Saving Lives, Improving Mothers' Care Core Report - Lessons*  
55 *learned to inform maternity care from the UK and Ireland Confidential Enquiries into Maternal Deaths*  
56 *and Morbidity 2018-20*. Oxford: National Perinatal Epidemiology Unit, University of Oxford; 2022.
- 57 6. Saucedo M, Deneux-Tharoux C. Mortalité maternelle en France, 2016–2018, fréquence, causes  
58 et profil des femmes. *Gynécologie Obstétrique Fertilité & Sénologie* 2024;52(4):185-200.  
59  
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3 7. Romanello M, Walawender M, Hsu SC, et al. The 2024 report of the Lancet Countdown on health  
4 and climate change: facing record-breaking threats from delayed action. *Lancet*  
5 2024;404(10465):1847-1896.  
6 8. Thornton J. Towards a greener, healthier Paris. *Lancet* 2025;405(10486):1214-1215.  
7 9. WHO/EURO. *Urban green spaces and health. A review of evidence*. Copenhagen: WHO  
8 Regional Office for Europe; 2016.  
9 10. The Lancet. American chaos: standing up for health and medicine. *Lancet* 2025;405(10477):439.  
10 11. APHA. *APHA is defending science, promoting evidence-informed policy and mobilising a*  
11 *coordinated public health voice*. 2025. Available at: [https://www.apha.org/news-and-media/news-](https://www.apha.org/news-and-media/news-releases/apha-news-releases/for-our-health-response-to-actions-taken-at-federal-health-agencies)  
12 [releases/apha-news-releases/for-our-health-response-to-actions-taken-at-federal-health-agencies](https://www.apha.org/news-and-media/news-releases/apha-news-releases/for-our-health-response-to-actions-taken-at-federal-health-agencies).  
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