Editorial | # Health, Medicine and Surveillance in the 21st Century

Sarah Earle, Pam Foley, Carol Komaromy and Cathy E. Lloyd

Open University, UK. mailto:S.Earle@open.ac.uk

Drawing on Foucault's (1977) analysis of 'political anatomy', Armstrong (1983; 1995) argues that the 20th Century marked a shift in the clinical gaze, from a focus on the interior of the body, to a focus that both explored the body in relation to its exterior and to the collective body. Armstrong (1995) describes this new mechanism of power as 'surveillance medicine'. In what others have described as medicalisation (Illich 1975), or healthism (Crawford 1980), this extended medical gaze has redrawn the boundaries between health, illness and disease to promote a regime of total health. Under this regime, the individual is not just subjected to the technologies of medical surveillance, but is expected to engage in the practice of self-surveillance.

By the beginning of the 21st Century, Surveillance Studies are highlighting how contemporary surveillance is neither limited, nor specific, in either scope or design (Lyon 2002). The digital revolution has taken mass surveillance from a possibility to a reality. From cradle to grave, the medical surveillance of the human body has, for many, taken on a routinisation that has served to normalise the political anatomy of the body. Increased health surveillance, biotechnology and geneticisation (Lippman 1991), as well as anxieties caused by globalisation (Kawachi and Gamala 2006), have contributed to the reinforcement and extension of the continuum between health, illness and disease – in what some have described as a 'dangerous future' (Macintyre 1995; Brand 2005). The notion that mass surveillance as a practice or regime is something that is objectively imposed upon passive, medicalised bodies is challenged. Tulle-Winton (2000) argues that the dispersion of power necessarily contains the possibility of resistance. By this he means that because individuals are all variably involved in his, or her, own regulation it is possible for people to resist the process. Indeed, over forty years ago, Roth (1963) argued that while the power to define markers of recovery from TB were located in the medical domain, patients did not act as passive bodies waiting for qualities to be awarded to them; rather they participated in the interpretation of signs and symptoms. Diagnosis has always contained a subtle blend of signs and symptoms repressed or exhibited when an individual engages in medical discourse and medical surveillance.

In this special edition of *Surveillance & Society* we ask whether increasing medical surveillance does, indeed, constitute a dangerous future and what that future might hold. In particular, this special edition seeks to explore the interplay between surveillance as reassurance and obligation on the one hand, and resistance and negotiation on the other.

In the first article, Martin French explores the globalisation of public health surveillance, in particular, focusing on surveillance within the context of a (post)cold-war discourse. Exposing the militaristic language of contemporary disease surveillance (informed, also, by Sontag's (1977) discussion of military

metaphor), and the legacy of a relationship between war and public health, French maps a shift in surveillance practices from a focus on individuals, to a focus on disease and its pathogens.

Drawing on Alexander Langmuir's (1963) cold-war definition of public health surveillance and its continued relevance and application, French argues that contemporary concerns with emerging infectious diseases such as HIV/AIDS move the discourse of public health surveillance into a new frame of reference; one which is simultaneously both more expansive, as well as increasingly superficial.

Quoting from the work of Hardt and Negri (2000: 136), French argues that 'The age of globalization is the age of universal contagion' and that the process of globalisation has produced anxieties which leave us susceptible to arguments for an intensification of surveillance. Increased travel, the author of this paper argues, accelerates the transborder migration of microbes and the development of increasingly sophisticated information technologies that can be used to track these disease outbreaks, regardless of the limitations of classic epidemiological methods. The western concept of surveillance development, he also suggests, can be seen as a way of securing disease-free regions across the globe. Extending this idea further, and drawing on comments made by Ilona Kickbusch[1], French notes how the spread of infectious diseases such as HIV/AIDS came to be defined as a security concern of global dimensions and prompted the first ever health issue to be taken to the United Nations Security Council (Kickbusch 2007).

However, crucial in all of this, the author argues, is the relationship between global public health and the international pharmaceutical industry. Surveillance, he suggests, helps secure markets by limiting uncertainties in demand within the global pharmaceutical business. Drawing on Waldby's (1996) critique of the 'biomedical imagination', French argues that contemporary global public health surveillance simply serves to marginalise local orders of concern. In conclusion, French warns against a contemporary public health surveillance which focuses heavily on disease data, at the expense of the broader determinants of health.

In the next contribution to this special edition, Susanne Bauer and Jan Eric Olsén draw on examples from clinical diagnostics and population health surveillance to demonstrate how the medical gaze becomes distributed and reconfigured. Techniques of medical surveillance and monitoring, the authors argue, are part of medical diagnostics and clinical management, as well as aetiologic and epidemiological research; yet they also serve to shape individuals experiences of health, illness and healthcare. The authors show, however, that contemporary medical surveillance also utilizes 'bottom-up' and less centralised techniques which are squarely directed at individuals Drawing on Foucault's (1978) work on 'biopower' (health discourses which normalise and regulate the body). Bauer and Olsén argue that this distributed form of medical surveillance can be seen to represent both poles of 'biopower'; a gaze directed at the collective body (or population) and the gaze which is directed to the individual body and identity. Focusing on both poles of biopower, Bauer and Olsén ask: 'Who is observing and who is being watched? What is the constellation between individuals, bodies and data within biomedicine and epidemiology? How do digital imaging and visualization techniques mediate medical procedures, clinical decision making and the politics of health care?'

Just as Martin French argues that contemporary public health surveillance marginalizes local orders of concern, Bauer and Olsén suggest that in recent forms of diagnostic monitoring, digital visualization and statistical data – whereby an abundance of numbers and images is created – the clinical gaze is being delocalized. However, the authors conclude by suggesting that while surveillance is crucial to the governance of populations and inherent in modern diagnostic medical techniques in a distributed form (for example, via *YouTube*), individuals are able to use the techniques of medical surveillance to make

---

[1] Former Director of the Division of Health Promotion, Education and Communication, World Health Organization (WHO), Geneva, Switzerland (1994-1998); former Director of the Department of Lifestyles and Health, WHO/Euro (Regional Office for Europe), Copenhagen, Denmark (1990-1994); and, former Regional Officer for Health Promotion, WHO/Euro, Copenhagen, Denmark (1985-1990).

sense of their own bodies. Turning the gaze upon oneself has always been a defining attribute of surveillance medicine; now such self examination can be returned to the public sphere.

Sarah Wiebe also explores the governance of populations in the next article, which focuses on border technologies and immigrant medical examinations in Canada. In this article Wiebe offers a critical review of border technologies, past and present, showing how such technologies serve to ameliorate and police the assumed 'risks' posed by immigrants and 'strangers' at the Canadian border.

Beginning with a discussion of leprosy and Chinese immigration into Canada in the 19th Century, Wiebe discusses the relationship between infection control and border control policies and practices. She also explores the role of the eugenics movement in Canada and, in particular, the role of medicine and doctors in barring the entry of 'feeble-minded' immigrants from countries such as England, Scotland and Ireland in the early 20th Century. Bringing this review right up-to-date, Wiebe considers contemporary border technologies and reflects on a practice which continues to discriminate. Categories of exclusion, she argues, dictate that those who are disabled or chronically ill can be excluded from entry on the grounds that they are not/less likely to be economically active, useful Canadian citizens. This conceptualization of health, the author argues, is a form of social power and control.

In a similar vein to Martin French's description of how public health surveillance can be used in the management of globalised anxieties concerning pollution and contagion, Wiebe argues that immigrant medical examinations are historically-constituted practices which form part of an apparatus of security. In this respect, the health screening of potential Canadian citizens can be seen as a 'biopolitics' of population; that is, as Wiebe suggests, 'by regulating the movement of who is (not) eligible… the government and bureaucracy have the political power and authority to define its population'.

Next, in the first of two articles focusing on anorexia nervosa, Cheryl Day employs an explicitly sociological analysis to explore the social construction of anorexia within the cultural context of 21st Century Australia. Anorexia, Day notes, is an extremely debilitating illness which has the highest mortality rate of all psychiatric illnesses; nearly 10 per cent of all those who suffer from this condition die and of those who do not, the majority never fully recover from it.

Day's thesis on anorexia focuses specifically on understanding the social construction of this condition within specific cultural contexts. Drawing on Foucault's (1977) insights on the 'social body', Day suggests that although anorexia is played out within the borders of the medical profession, modern communications – and television in particular – play an important role in defining and constructing a feminized, gendered identity which determines 'how women "should" look and behave' to be taken seriously as successful modern Australian citizens.

However, while anorexia nervosa was named and defined as an illness as relatively recently as just over a century ago, the author highlights that it is not a modern phenomenon but one that has been in existence for at least 800 years. Historical analyses, Day argues, demonstrates how the meaning of self starvation has changed over time. Focusing on food, on the one hand, and the cultural construction of slimness and beauty, on the other, Day explores the rise of anorexia nervosa as a modern disease and the importance of situating health, medicine and surveillance within its cultural and political context.

In the second of two articles focusing on anorexia, Mebbie Bell offers a critical feminist and Foucauldian reading of the discourse of the pro-anorexia (or 'pro-ana') movement. Offering some insight into the pernicious nature of this disease as highlighted by Cheryl Day, Bell's article concentrates on the manifestation of the pro-anorexia movement in the form of pro-ana websites. These websites, Bell suggests, teach individuals how to perform a 'normal' body thus exposing both the instability of diagnostic medical criteria and the limits of medical surveillance over the (female) body.

Bell reflects on both the diagnostic and disciplinary power of the medical gaze, suggesting that the clinical disciplining of the individual anorexic patient is evocative of the historical constraining of women's bodies, identities and voices. However, Bell's article analyzes the complex negotiations of medical surveillance undertaken by those who are defined, and who define themselves, as anorexic. In particular, examining the way in which pro-anas use the internet to bind together to reject the dominant biomedical interpretation of anorexia as an illness which needs to be cured, subverting medical biopower and embracing a distinct pro-ana lifestyle, identity and religion.

Discussing the medical management of anorexia nervosa, Bell suggests that standard treatments replicate and exacerbate the sociocultural conflicts experienced by women with eating disorders – some of which were explored in the article by Cheryl Day. Bell explores the way in which Pro-Ana websites encourage those with anorexia to disrupt the medical gaze by tricking it to see a 'normal' body (via temporary weight gain) in order to avoid detection. Thus, Bell reports, pro-ana websites are often seen as dangerous and infectious both to those who define themselves as pro-anas, but also to individuals who may unexpectedly happen upon such material.

However, rather than condemning pro-ana websites, Bell suggests that the pro-anorexia movement should be seen as 'as a struggle, individually contextualized within and against medical discourse'.

The final article in this special edition also considers the role of the internet in health, medicine and surveillance in the 21st Century. Drawing on Armstrong's (1985) concept of 'surveillance medicine', Emma Rich and Andy Miah consider the expansion of the medical gaze into cyberspace. They begin by examining the nature of medicalisation, a process by which everyday activities are subjected to the medical gaze, and where seemingly innocuous aspects of everyday life can become medical problems. However, whilst acknowledging the pervasiveness of medical surveillance, Rich and Miah recognize that the 'medicalization thesis' (Illich 1975) has been challenged.

The authors suggest that medical surveillance has become more complex in recent years, attributing this change both to the continued politicization of health and lifestyle, as well as to the infiltration of medical discourse in popular culture and media. Most importantly, however, the authors argue that it is the advancements in digital technology that have transformed the entire infrastructure and culture of medicine. The digitalization of health, Rich and Miah suggest, extends from the mechanisms of information management, through to the public consumption of health and medicine; the internet, mobile devices, and other virtual technologies, they argue, are regularly used to provide medical advice and treatment, and play a key role in constructing discourses of health and wellbeing.

Online medical surveillance, Rich and Miah argue, serve to medicalize the healthy, or 'worried well'. Indeed, digital environments such as those described above, enable 'biopower' (Foucault 1978) to be enacted, whilst encouraging populations to self regulate. In cyberspace, self surveillance is encouraged via the range of online mechanisms (for example, the website *Fitwatch.com* or products such as the Nintendo Wii *Fit*) which allow the public to monitor and regulate lifestyle and the body.

Rich and Miah conclude by arguing that the implications of cyberspace for health, medicine and surveillance are enormous. Online medical surveillance influences not just how individuals can experience health and illness, and communicate about their health, but becomes a dominant mechanism for the production and regulation of knowledge about health and medicine.

All of the articles presented in this special edition explore the medical surveillance of the human body. The articles consider how 'biopower' is enacted through both medical and popular discourses, examining the far reaching consequences of this within the context of an increasingly globalized and digitalized world. However, whilst discourses and practices of surveillance and self-surveillance are not entirely negative, and there is evidence of resistance and negotiation, all of these articles point to a need for further investigation and analysis into the technologies of medical surveillance in the 21st Century.

References

Armstrong, D. 1983. *Political Anatomy of the Body: Medical Knowledge in Britain in the Twentieth Century*. Cambridge: Cambridge University Press.

Armstrong, D. 1995. The rise of surveillance medicine. *Sociology of Health & Illness*, 17(3): 393-404.

Brand, A. 2005. Public health and genetics – a dangerous combination? *European Journal of Public Health*, 15(2): 114-16.

Crawford, R. 1980. Healthism and the medicalisation of everyday life. *International Journal of Health Services*, 10(3): 365-88.

Foucault, M. 1977. *Discipline and Punish: The Birth of the Prison*. Tr. by Alan Sheridan. New York: Pantheon Books.

Foucault, M. 1978. *The History of Sexuality*, *vol.1, An Introduction.* London: Allen Lane.

Illich, I. 1975. *Medical nemesis: The expropriation of health*. New York: Pantheon.

Kawachi, I. and Gamala S.P. 2006. *Globalization and Health*. Oxford: Oxford University Press.

Kickbusch, I. 2007. Forward: Governing Interdependence. In W. Hein, S. Bartsch and L. Kohlmorgen (eds), *Global Health Governance and the Fight Against HIV/AIDS*. Basingstoke: Palgrave, x-xv.

Lippman, A. 1991. Prenatal Genetic Testing and Screening: Constructing Needs and Reinforcing Inequalities. *American Journal of Law and Medicine*, 17(1/2): 15-50.

Lyon, D. 2002. Surveillance studies: Understanding visibility, mobility and the phenetic fix. *Surveillance Studies*, 1(1): 1-7.

Macintyre, S. 1995. The public understanding of science or the scientific understanding of the public? A review of the social context of the 'new genetics'. *Public Understanding of Science*, 4: 223-32.

Roth, J. 1963. *Timetables*. New York: Bobbs-Merril.

Sontag, S. 1977/1989. *Illness as a Metaphor and AIDS and Its Metaphors*. New York: Farrar, Strauss, and Giroux.

Tulle-Winton, E. 2000. Old Bodies. In P. Hancock, B. Hughes, E. Jagger, K. Paterson, R. Russell, E. Tulle-Winton and M. Tyler (eds) *The Body, Culture and Society*. Buckingham: Open University Press, 64-83.

Waldby, C. 1996. AIDS *and the Body Politic: Biomedicine and Sexual Difference*. London: Routledge.