

## 7 Another Way of Speaking? Public Health Statistics in the People's Republic of China

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On 1 October 1949, Mao Zedong stood atop the Tiananmen Gate and proclaimed the People's Republic of China (PRC) to be the only legal government representing the Chinese people. From its inauguration, the PRC government adopted a "One China" policy and endeavored to disqualify the Republic of China (ROC) from representing China on the international stage. Considering the United Nations to be a proxy for the American-led capitalist camp, the PRC cut off relations with the United Nations system, including with the World Health Organization (WHO), thus ending its epidemic reporting to the organization. Despite its disassociation from the WHO, health statisticians in the PRC who had been trained at the Peking Union Medical College (PUMC) and/or the Johns Hopkins School of Public Health (JHSPH) before 1949 did not stop using statistics in their teaching and field research. Nevertheless, the ways in which they used statistics evolved in line with the central government's policies regarding numbers collection, which, in the 1950s, was largely influenced by statistical thinking from the Soviet Union.

By following the work of health statisticians in the PRC between 1949 and 1971, before it joined the WHO, this chapter explores another way in which the language of statistics was spoken. It serves to complement previous chapters by recounting the story of health statistics on the other side of the Iron Curtain, detailing the continuities and transformations in health statistics once the global health network led by the WHO lost its influence over mainland China. One of the major proofs that continuities existed nonetheless is that, when the PRC joined the WHO, Chinese health experts such as Chen Zhiqian (also known as C. C. Ch'en), who was educated at the PUMC and directly associated with the public health enterprises of the Milbank Memorial Fund and Rockefeller Foundation in interwar China, were presented as gurus within the Chinese health system and mediated between the WHO and the Chinese government. The PRC government promoted its community health system, designed by Chen, that

relied on non-professionals with minimal training (commonly known as “barefoot doctors” during the Cultural Revolution) to the WHO. The WHO would take inspiration from this system in the Alma-Ata Declaration of the late 1970s.<sup>1</sup>

Important questions remain, however. What happened to public health experts when the newly established PRC cut off connections with the West in 1949? Did they manage to integrate their know-how into the Soviet model of health statistics adopted by the PRC? How were they influenced by the thought-reform initiatives that peaked during the Cultural Revolution (1966–1976) and targeted Western-educated Chinese? By mobilizing archival materials and works published during the period under study, this chapter follows the trajectories of health statisticians trained in the United States before 1949 during a period of significant political change. In particular, this chapter complements Arunabh Ghosh’s research focused on the endeavors of the PRC State Statistics Bureau.<sup>2</sup> I will show that public health experts had a certain level of independence when it came to using the national statistical system that Ghosh describes. These experts used statistics to tackle public health work during the early years of the PRC; this chapter therefore also complements emerging literature on the history of public health in the PRC.<sup>3</sup> The literature unequivocally shows that reporting numbers was part of the PRC’s public health policies, and that health workers in the field were required to meet quotas set by their superiors.<sup>4</sup> This chapter completes that picture by exploring the work of elite public health experts who used statistics, and the extent to which their statistical practices – and the central government’s statistical

<sup>1</sup> The historian Zhou Xun has provided one of the most complete discussions on the influence of the PRC’s “barefoot doctor” model within the WHO in the 1970s (Zhou, “From China’s ‘Barefoot Doctor’ to Alma Ata: The Primary Health Care Movement in the Long 1970s”; Zhou, *The People’s Health*).

<sup>2</sup> Based on archival materials from the State Statistics Bureau, as well as other publications from the time, Ghosh’s work chronicles changes in the PRC’s statistical policies during its early decades, work from which this chapter greatly benefited (Ghosh, *Making It Count*).

<sup>3</sup> See, e.g.: Gross, *Farewell to the God of Plague*; Xiaoping Fang, “Diseases, Peasants, and Nation-Building in Rural China. Social Conformity, Institutional Strengthening, and Political Indoctrination,” in *Public Health and National Reconstruction in Post-War Asia: International Influences, Local Transformations*, eds. Liping Bu and Ka-Che Yip, 52–71; Mary Augusta Brazelton, “Western Medical Education on Trial: The Endurance of Peking Union Medical College, 1949–1985,” *Twentieth-Century China* 40, no. 2 (2015): 126–45; Bu, *Public Health and the Modernization of China, 1865–2015*; Brazelton, *Mass Vaccination*; Zhou, *The People’s Health*; Xiaoping Fang, *China and the Cholera Pandemic: Restructuring Society under Mao* (Pittsburgh, PA: University of Pittsburgh Press, 2021)

<sup>4</sup> See, e.g.: Brazelton, *Mass Vaccination*, 60–2; Zhou, *The People’s Health*, 61–2, 89.

reporting system for health campaigns – ebbed and flowed during the early years of the PRC. In general, although the young government's central policies undermined the authority of the WHO – as well as that of the public health experts studied here – it continued to rely on numbers for its public health campaigns and put effort into organizing and reorganizing its reporting systems.<sup>5</sup> As this chapter will show, reliance on statistics grew during times of intense mass mobilization when experts lost their authority within the regime, thus illustrating the role of statistics as a substitute for expert authority, as observed by Porter.<sup>6</sup>

### **Participation in Non-WHO International Health Collaboration**

Despite the Cold War political climate and its policy of only accepting United Nations members, the WHO nonetheless sought to contact the PRC with the aim of fulfilling – at least partially – its promise of being a worldwide organization.<sup>7</sup> Nevertheless, just like the ROC, the PRC government considered its policy vis-à-vis the WHO within the Cold War context and was skeptical as to the benefits it would receive in exchange for the high membership fee. A document prepared by the PRC Ministry of Foreign Affairs spells out these considerations, listing the reasons why the PRC should not establish a relationship with the WHO:

1. All of the WHO's core staff were from countries in the United States–United Kingdom bloc. In addition, the organization collaborated closely with the United Nations Headquarters and the Pan American Health Organization. If China were to participate, the United States (an imperial power) would use the organization to collect intelligence about China and deceive backward-thinking people.
2. Only 50 percent of the WHO's 1948 budget was allocated to on-the-ground services. Its programs in China were superficial. The Russian, White Russian, and Ukrainian Soviet Socialist Republics had all left the organization in 1949 under the pretext that its work was unsatisfying and its budget too large. The PRC could refer to their reasons.

<sup>5</sup> I would like to thank an anonymous reader for this insight.

<sup>6</sup> Porter, *Trust in Numbers*.

<sup>7</sup> Waijiao bu [Minister of Foreign Affairs], “Guanyu woguo yingfou jiaru shijie weisheng zuzhi shi,” July 11, 1950.

3. The PRC might have to pay a steep membership fee to the organization. Given the meager results expected, the PRC might as well use the money to improve its own medical and public health work.<sup>8</sup>

The first point reveals the PRC government's distrust of the WHO when it came to public health intelligence. The government was convinced that such information would be used against it, as the WHO was run by nationals of countries from the Western bloc. The PRC Ministry of Foreign Affairs explicitly prohibited the Ministry of Health from directly reporting epidemic statistics to the WHO's Singapore-based epidemiological intelligence service.<sup>9</sup> Instead, the government sought to partner with socialist countries to exchange epidemic information, and, as early as 1949, the PRC government had hosted visits from four Soviet epidemic control experts.<sup>10</sup>

The PRC's attitude toward the United Nations agencies was even colder than that of other socialist countries due to the United Nation's recognition of the ROC, now settled on the island of Taiwan, as the only legitimate representative of China. When the Soviet Union delegation in Geneva called on its allies to provide their own data to promote socialism within the United Nations, the PRC representative requested other members of the socialist bloc not to leak any Chinese information to United Nations agencies in the fear that agencies such as the WHO and the International Labour Office might use it to justify meddling in "Chinese domestic affairs."<sup>11</sup>

<sup>8</sup> Translated from: Waijiao bu [Minister of Foreign Affairs], "Guanyu Zhongguo yingfou canjia guoji laogong zuzhi, shijie baojian zuzhi de baogao [Report on Whether China Should Participate in the International Labour Organization and the World Health Organization]," December 23, 1949, 113-00044-02, Archives of Ministry of Foreign Affairs of China.

<sup>9</sup> Waijiao bu [Minister of Foreign Affairs], "Guanyu tingzhi xiang shijie weisheng zuzhi Xinjiapo yiqingzhan tigong woguo yiqing de wenjian [On Ending Epidemic Reporting to the WHO's Singapore Epidemiological Station]," 1950, 113-00044-04, Archives of Ministry of Foreign Affairs of China.

<sup>10</sup> *Ibid.*; Waijiao bu [Minister of Foreign Affairs], "Sulian fangyi zhuanjia jiedai baogao [Soviet Union Epidemic Control Experts Reception Report]," November 3, 1949, 117-00031-01, Archives of Ministry of Foreign Affairs of China.

<sup>11</sup> Translated from: Zhu Rineiwa Zong Lingshiguan [Consulate General in Geneva], "Xiongdi guojia changzhu Rineiwa guoji zuzhi daibiaotuan jihui qingkuang [Meeting of the Permanent Delegation of Brother Countries to the International Organizations in Geneva]," October 16, 1951, 113-00368-01, Archives of Ministry of Foreign Affairs of China; Waijiao bu [Minister of Foreign Affairs], "Waijiao bu quhan zhu Ruishi shiguan bing Zhu Rineiwa Zong Lingshiguan [The Ministry of Foreign Affairs Wrote to the Embassy in Switzerland and the Consulate General in Geneva]," October 27, 1951, 113-00368-01, Archives of Ministry of Foreign Affairs of China.

Though it had cut off contact with the WHO, the PRC was an active participant in an international health event led by the Soviet Union during the 1950s. In the archives of the PRC Ministry of Foreign Affairs, a document about the PRC's delegate to the *Congrès mondial des médecins pour l'étude des conditions actuelles de vie* (World Congress of Doctors for the Study of Current Life Conditions) reveals that the PRC was active in Soviet Union-led international health events in the first half of the 1950s. In 1953, the World Congress of Doctors took place in Vienna. Led by the Soviet Union and with representatives from eleven countries from both sides of the Cold War rivalry,<sup>12</sup> the goal was to create a platform for information exchange among medical practitioners.<sup>13</sup> The use of the term "current life conditions" in the title is suggestive, in that it placed prime emphasis on social medicine, drawing a telling contrast with coeval WHO activities focused on epidemic control through mass distribution of vaccines and insecticide spray. The PRC was an active member of the Congress: it contributed to the publication of its papers, worked to recruit more Asian countries as participants, and introduced a session during the annual conference of the China Medical Association to discuss life conditions in China, a topic deemed important by the Congress.<sup>14</sup>

The archives of the PRC's Ministry of Foreign Affairs also contain clues as to the PRC's policy on international health collaboration in terms of accepting foreign patients for treatment in China. The PRC became an exporter of medical services by accepting foreign patients, who came to receive Chinese traditional treatments.<sup>15</sup> From 1957 to 1960, there were 186 requests for treatment in China, 90 percent of which came from the Soviet Union, Mongolia, Vietnam, and North Korea. Only eighty-three were accepted, as the PRC assessed in advance whether the treatment was likely to be effective, depending on the individual's condition.<sup>16</sup>

<sup>12</sup> Participating countries included Australia, the Soviet Union, China, France, the United Kingdom, the German Democratic Republic, Italy, Czechoslovakia, Denmark, India, and Chile.

<sup>13</sup> "Shijie yixue huiyi mishuchu huiyi qingkuang huibao [Summary of the World Congress of Doctors' Secretariat Meeting]," 1953, 113-00187-01, Archives of Ministry of Foreign Affairs of China.

<sup>14</sup> Bai Xiqing, "Women jihua jinhou jinxing de gongzuo [The Work We Plan to Do in the Future]," December 15, 1953, 113-00187-01, Archives of Ministry of Foreign Affairs of China.

<sup>15</sup> For the PRC's efforts in Traditional Chinese Medicine, see, e.g.: Kim Taylor, *Chinese Medicine in Early Communist China, 1945–63: A Medicine of Revolution* (London: Routledge, 2004).

<sup>16</sup> Waijiao bu [Minister of Foreign Affairs], "Guanyu guoji youren lai woguo zhibing wenti [On International Friends Coming to Our Country for Medical Treatment]," May 22, 1961, 113-00368-01, Archives of Ministry of Foreign Affairs of China.

Research institutions also received foreign medical experts, and not only from socialist countries. The Shanghai Medical College's chronicle shows visits by medical experts from Japan, Denmark, Sweden, and Italy in 1955 alone.<sup>17</sup> Most went first to Shanghai Medical College, then Shanghai First Medical School, to exchange surgical knowledge, and one visitor from Japan came to participate in snail fever control campaigns.<sup>18</sup>

These anecdotes show that the PRC did not lose all contact with other countries in terms of health affairs, despite cutting off its connection with the United Nations. Rather, it participated in a different, socialist-led global health network. It also exported Chinese traditional medicine to other regions of the world. Moreover, the government did not shy away from exchange with individual experts from the other side of the Iron Curtain when it came to acquiring medical and public health expertise.

### **Economic Recovery Period (1949–1952): An Extension of the ROC's Statistical Practices**

The PRC's domestic public health work during its early years resembled its work in border regions during the Second Sino-Japanese War. In 1950, Chen Zhiqian, the former Ding Xian health expert and an alumnus of the PUMC and the Harvard School of Public Health (see Chapter 4), led the PRC's First National Health Conference, which promulgated three principles of medical and public health work: i) prevention as the priority; ii) solidarity among workers, peasants, and soldiers; and iii) unification of traditional Chinese and Western medicine.<sup>19</sup> In line with these principles, the PRC's public health work differed from that of the ROC. Whereas the postwar ROC regime – which received support from United States aid agencies and the WHO – was focused on mass epidemic control campaigns based on “panaceas” such as vaccines or insecticide spray, the PRC devised its public health actions also with a focus on social hygiene, emphasizing the link between public health and living conditions, and therefore concentrated on sanitation in living environments and personal hygiene.

<sup>17</sup> Shanghai yike daxue jishi bianzuan weiyuan hui [Shanghai Medical College Chronicle Editorial Board], *Shanghai yike daxue jishi [Shanghai Medical College Chronicle (1927–2000)]* (Shanghai: Fudan University Press, 2000), 130–1.

<sup>18</sup> It is likely that the visit of the Japanese expert was arranged by the Chinese premier, Zhou Enlai, who had approached Japan for help with schistosomiasis control campaigns. For details on Japan's suggestions regarding the campaigns, see: Zhou, *The People's Health*, 92–4.

<sup>19</sup> Bu, *Public Health and the Modernization of China, 1865–2015*, 224.

Statistical collection, with its capacity for obtaining actual knowledge of the health and living conditions of the masses, continued to be a part of the PRC's public health work. From 1949 to 1952, before the Patriotic Health Campaign took place in November 1952,<sup>20</sup> statisticians who were trained and/or active during the interwar years adopted the same statistical practices, regardless of whether they were organizing health administrations or conducting research in universities. Xu Shijin (Hsu Shih-Chin), a PUMC- and JHSPH-trained statistician and a former staffer at the ROC Ministry of Health, took on a professorship at Shanghai First Medical School in 1949. Based in Shanghai, Xu expanded the vital and health statistics collection demonstration he had conducted in the prewar capital, Nanjing, to seventy-two localities across the Chinese mainland. In line with Xu's program, the Shanghai Municipal Health Bureau began organizing statistical training in 1950 to increase the quality of vital statistics and improve collaboration in epidemic control programs.<sup>21</sup> The training covered the use of various forms and reporting methods. Once investigators had completed the training, they were dispatched to health centers in greater Shanghai.<sup>22</sup>

Another example of a prewar statistician who went on to serve the PRC regime was Guo Zuchao. Guo was a public health statistics lecturer at the Central University in Nanjing who was sent on a WHO-sponsored fellowship in 1947 to receive training at the JHSPH. Upon his return, he continued to work at the Central University, specializing in vital and health statistics, before being hired by the Fifth Military Medical University, where he oversaw the use of statistical forms for public health matters within the People's Liberation Army. Guo's *Medical Science and Biostatistical Methods*, first published in 1948, would become a reference for later generations of PRC medical and public health statisticians. The 1948 edition contains text that is very similar to the training handouts on statistical analysis used in American public health schools. In it, Guo enumerates ways of analyzing statistics and presents basic concepts such as sampling, means, regression, and analysis of variance.<sup>23</sup>

<sup>20</sup> Claiming that the use of germ warfare by the United States in the Korean War was the source of China's ongoing epidemics, the PRC central government launched the Patriotic Health Campaign in 1952. This established a series of public health measures, such as mass vaccination campaigns and the elimination of several disease-carrying animals. I will elaborate on it in the following pages.

<sup>21</sup> Shanghai Municipal Health Bureau, "Shanghai shi shengming tongji gongzuo diyinian zongjie baogao [Shanghai City's Vital Statistics Activities, First Year Summary Report, 1950.07-1951.06]," 1951, B242-1-255, Shanghai Municipal Archives.

<sup>22</sup> There were thirty-one trainees at the 1950 session and eighteen at the 1951 session (*ibid.*).

<sup>23</sup> Guo Zuchao, *Yixue yu shengwu tongji fangfa [Medical Science and Biological Statistical Methods]* (Shanghai: Zhengzhong shuju [Cheng Chung Book Company], 1948).

Notably, he cited not only renowned scholarly publications on biostatistical methods from the United States and the United Kingdom, but also integrated Chinese research to serve as examples in exercises at the end of each chapter.<sup>24</sup> Four years later, Guo co-authored another manual, *Public Health*, which included a chapter on vital and health statistics. Focusing on administrative collection methods, the chapter introduced basic guidelines about vital and health statistics, including the data to be collected in vital registration, the international list of causes of death, and the methods for collecting and tabulating them. Citing John Snow's research during the London cholera epidemic, the authors emphasized the importance of observing changes in epidemic statistics to infer the causes of an epidemic.<sup>25</sup> Once again, their description of vital and health statistics was in accordance with the training he had received at JHSPH.

Neither Xu's nor Guo's work between 1949 and 1952 differed from their earlier work, when the ROC regime was still in power on the mainland. Publications by both would receive corrections in the following years, when the PRC regime started adhering to socialist statistics as introduced by the Soviet Union. The influence of socialist statistics was further reinforced during the period covered by the PRC's first five-year economic plan (1953–1957), when the Soviet Union increased its financial aid and sent experts of all sorts to the PRC in the hopes of demonstrating the effectiveness of the Soviet Union's socialist system in developing countries. Swayed by the Soviet model, the PRC closely followed the Soviet Union's administrative and economic consultancy during the first five-year economic plan, which also left its mark on vital and health statistics collection.

### **The Implantation of Socialist Statistics and Their Limits in Public Health**

The year 1952 is crucial to understanding the PRC's use of public health statistics over the following decades. This was the year when the Chinese Communist Party blueprinted two important programs: the first five-year plan; and the Patriotic Health Campaign. The two programs promoted distinctly different ways of using vital and health statistics. Whereas the first five-year plan was based on the principle of the uniform collection of all sorts of statistics using methods in line with socialist

<sup>24</sup> Ibid.

<sup>25</sup> Bi Rugang and Guo Zuchao, eds., *Gonggong weisheng [Public Health]* (Shanghai: Shangwu yinshuguan [The Commercial Press], 1953), 39.



ideology, the Patriotic Health Campaign – and its local implementation – was somewhat resistant to the dominance of socialist statistics.

The first five-year plan intensified programs based on socialist statistics. It represented the peak of the Soviet Union's influence in China, as it launched the Party's all-encompassing imitation of the Soviet nation-building efforts, with a Soviet Union loan supporting one-third of related programs. Soviet experts flocked to China to advise on nation-building matters ranging from transport infrastructure to the education system.<sup>26</sup> Among them were six statisticians, who successively served at the State Statistics Bureau, where they designed statistical collection systems, inspected local statistical work, assisted with the publication of Soviet Union textbooks, and trained Chinese statistical staff through lectures and discussions.<sup>27</sup> Following the lead of these Soviet Union statisticians, the PRC designed its statistical practices in the tradition of socialist statistics.

Specifically, socialist statistics stressed the political nature of statistical practices.<sup>28</sup> Under Marxism–Leninism, statistics were considered a social science, as they aimed to reveal existing social inequality. Socialist statisticians rejected the idea of statistics as a common discipline in which identical methods could be applied to anything from biology to physics to the social sciences.<sup>29</sup> For them, using statistics in such a way was dangerous, as it presumed that social inequality was biological and natural, and therefore could not be reversed. In that sense, a census including all social classes was crucial and could not be replaced by mathematical statistics that inferred an entire population's situation based on random samples. The mathematical statistics of Karl Pearson and his followers were condemned as a bourgeois scheme to conceal class inequality.<sup>30</sup>

<sup>26</sup> The PRC had in fact been hosting Soviet experts since 1949. The number of such experts in China increased in 1950, after the Communist Party signed the Sino-Soviet Treaty of Friendship, Alliance and Mutual Aid. For a complete history of China's learning from the soviet model, see, e.g.: Thomas P. Bernstein and Hua-Yu Li, eds., *China Learns from the Soviet Union, 1949–Present*, The Harvard Cold War Studies Book Series (Lanham, MD: Lexington Books, 2010).

<sup>27</sup> Ghosh, *Making It Count*, 77–88.

<sup>28</sup> Arunabh Ghosh provides a much-needed general account of socialist statistics (*ibid.*, 62–74).

<sup>29</sup> Zhongguo kexueyuan hebeisheng fenyuan jingji yanjiusuo zichanjieji tongjixue pipan xiaozu [China Science Council's Critic Group Against Bourgeois Statistical Research] and Nankai daxue jingjixi zichanjieji tongjixue pipan xiaozu [Nankai University's Critic Group against Bourgeois Statistical Research], *Suqing zichan jieji tongji xueshu sixiang de liudu* [*Cleaning the Remaining Poison of Bourgeois Statistical Research*] (Shanghai: Shanghai renmin chubanshe [Shanghai People's Publishing House], 1958), 6, 11.

<sup>30</sup> *Ibid.*, 6.

When it came to vital and health statistics, socialist statisticians advocated for the two categories to be kept completely separate. Vital statistics were to be confined to population statistics – births, deaths, and changes in the composition of the population – whereas health statistics were to focus on the quantity of public health services provided, disease case numbers, and height and weight statistics. The purpose of this separation of vital statistics from health statistics was to avoid attributing cases of unnecessary death and disease to individuals' poor hygiene, as socialist teaching held that any death or disease was closely related to social inequality. Gu Weilin, the translator of *The USSR's Public Health, Educational, and Cultural Statistical Organizations* (and possibly a statistical staff member within the PRC administration),<sup>31</sup> clearly articulates the socialist view of vital statistics in an article in the State Statistics Bureau's *Statistical Work Bulletin*:

The formulation of vital statistics allows the bourgeoisie to explain births, deaths, marriages and diseases from a biological perspective. Bourgeois statisticians must employ a biological perspective when conducting statistical studies on births, deaths, marriages and diseases in order to present demographic change and disease outbreaks as natural phenomena, disassociated from class relations. They chose to make the term "vital statistics" include birth, death, marriage and disease statistics precisely because the term "vital" is suggestive of biology, which allows them to present vital statistics as a branch of biology. ... Combining population statistics with public health statistics enables the bourgeoisie to obscure the goal of the people's struggle. The bourgeoisie often claims that the high mortality rate is due to problematic personal hygiene, and that any decrease in mortality rate is because of improved public health and medicine. They hope to use this theory to shift the focus of working people and oppressed groups [away from class inequality].<sup>32</sup>

Socialism-inspired statistical thinking left its mark on health statisticians' work. In 1954, Xu Shijin's vital registration demonstrations in seventy-two localities were all canceled. This was in line with the socialist principle that the collection of vital statistics tended to make ill health a matter of personal responsibility.<sup>33</sup> Instead, three years later, Xu and his students launched statistical surveys on community health and

<sup>31</sup> Shalobaofu [transliterated name], *Sulian baojian, jiaoyu he wenhua tongji zuzhi* [*The USSR's Public Health, Educational, and Cultural Statistical Organizations*], trans. Gu Weilin (Beijing: Caizheng jingji chubanshe [Financial and Economic Publishing House], 1955).

<sup>32</sup> Translated from: Gu Weilin, "Wodui tingban shengming tongji shiban gongzuo de renshi [My Knowledge of the End of Vital Statistics Demonstrations]," *Tongji gongzuo tongxun* [*Statistical Work Bulletin*], no.1 (1955): 38–9.

<sup>33</sup> *Ibid.*

researched hygiene levels in village coal mines near Shanghai.<sup>34</sup> Moreover, in line with socialist statistical teaching, Xu's 1957 textbook *Common Public Health Statistical Knowledge in Factories* enumerated aspects that should be recorded regarding workers' health and the loss of manpower due to disease in factories, with no mention of mathematical statistics.<sup>35</sup> Although there is no archival evidence that proves a direct relationship between the changes in Xu's statistical practices and the PRC's national policy, it is informative to note that the PRC took a strong lead in standardizing the country's statistical collection following the Soviet Union model, including standardizing textbooks at the national level. Around the same time, the Party also implemented waves of thought-reform campaigns, with some directly aimed at intellectuals, particularly those educated in the West.<sup>36</sup> It is therefore reasonable to deduce that Xu had a strong incentive to follow state policy regarding vital and health statistics.

Notably, socialist statistics were not strictly applied to all public health programs. The concept of sampling, for example – inherent in the selection of a “demonstration” area prior to more extensive implementation – did not disappear from public health work, despite being prohibited under socialist doctrine. A document from the Shanghai Municipal Archives, published only two years after the cancellation of Xu's vital registration demonstration, shows that the Shanghai Municipal Health Bureau nonetheless maintained three testing sites for such a system.<sup>37</sup> Faculty members at the Shanghai First Medical School also continued to implement random sampling in their health surveys. In 1956, Yang Guoliang, an American-trained dermatologist, led a group of students to survey yaws prevalence north of the Yangtze River in

<sup>34</sup> Wo Hongmei, “Zhongguo yixue tongjixue fazhan jianshi [Brief History of China's Medical Statistics, 1949–2012]” (Master's dissertation, Nanjing, Nanjing Medical College, 2013), 61.

<sup>35</sup> Xu Shijin, *Gongchang changyong weisheng tongji zhishi [Common Public Health Statistical Knowledge in Factories]* (Shanghai: Shanghai Public Health Publishing House, 1957).

<sup>36</sup> Fu Zhengyuan, *Autocratic Tradition and Chinese Politics* (Cambridge: Cambridge University Press, 1993), 256–87. For general accounts of the relationship between the PRC and its scientists/intellectuals, see, e.g.: Cong Cao, *China's Scientific Elite* (London: Routledge, 2004); Joel Andreas, *Rise of the Red Engineers: The Cultural Revolution and the Origins of China's New Class* (Stanford, CA: Stanford University Press, 2009); Timothy Cheek, *The Intellectual in Modern Chinese History* (Cambridge: Cambridge University Press, 2015).

<sup>37</sup> Shanghai Municipal Health Bureau, “Shanghaishi 1955 nian weishengfangyi gongzuo jihua [Shanghai City's public health and epidemic control work plan for 1955],” 1955, 6, B242-1-793, Shanghai Municipal Archives.

Jiangsu Province.<sup>38</sup> Yang's survey method was to sample four counties and one city, where 14,000 inhabitants were examined. After finishing his survey, Yang published an article praising the superiority of both collective work and social institutions when seeking to develop statistics and a reporting system, asking: "[H]ow can a commander with no idea as to his enemies' situation devise an overall war plan?"<sup>39</sup> Yang's vision of statistics and their role in representing field conditions to aid policy-making was identical to that of his Western colleagues and pre-1949 Chinese public health experts.<sup>40</sup>

These fieldwork activities reveal some of the limits that socialist methods encountered during implementation. In 1952, the Patriotic Health Campaign also shaped the uses of statistics in public health domains. The Communist Party launched the Campaign in March in response to an alleged American bacteriological attack in North Korea and China during the Korean War (1950–1953). Fang Xiaoping posits that the germ-welfare allegation was of crucial importance for the PRC's early nation-building efforts, as public health programs were a good way of converting rural inhabitants to the Party's political ideology.<sup>41</sup> The main action taken under the Patriotic Health Campaign was the mobilization of administrations at all levels, along with the general population, to eliminate mice, flies, mosquitoes, fleas, snails, and other disease-carrying vermin. Though it remains a subject of debate among historians as to whether the alleged bacteriological attack even took place,<sup>42</sup> those specializing in public health generally agree that the PRC government

<sup>38</sup> Yang Guoliang, "Qu Subei diaocha yasi gongzuo de jingguo qingkuang he yixie tihui [My Field Survey on Yaws Work in Subei]," *The Magazine of the Shanghai First Medical School*, October 16, 1956.

<sup>39</sup> Translated from: *Ibid.*

<sup>40</sup> Ghosh also observes that the PRC attempted to use sampling methods to conduct economic surveys. See: Ghosh, "Accepting Difference, Seeking Common Ground."

<sup>41</sup> Fang, "Diseases, Peasants, and Nation-Building in Rural China," 63.

<sup>42</sup> For a long time, historians held different theories about the veracity of alleged American bacteriological attacks on China and North Korea during the Korean War. Though many well-respected historians, including John King Fairbank, Kathryn Weathersby, and Milton Leitenberg, all rebut the existence of the bacteriological attack, others consider that it did actually take place. In 2016, Leitenberg published the first article using Chinese sources to argue that the claims of bacteriological warfare were a well-articulated, but ultimately false, allegation. See: John K. Fairbank and Mary C. Wright, "Introduction," *The Journal of Asian Studies* 17, no. 1 (1957): 55–60; Kathryn Weathersby, "New Evidence on the Korean War," *Cold War International History Project Bulletin* 11 (1998): 176–99; Milton Leitenberg, "A Chinese Admission of False Korean War Allegations of Biological Weapon Use by the United States," *Asian Perspective* 40, no. 1 (2016): 131–46. For historians who consider the attacks to have actually taken place, see, e.g.: Stephen Lyon Endicott and Edward Hagerman, *The United States and Biological Warfare: Secrets from the Early Cold War and Korea* (Bloomington, IN: Indiana University Press, 1998).

used the allegation to stoke the population's patriotism and implement comprehensive public health programs, establishing the model for such programs over the following decades.<sup>43</sup>

During the Patriotic Health Campaign, the PRC central government relied on trained statisticians to estimate its public health capacities on the ground. For instance, the government mobilized statisticians to compile data on military health achievements during the Korean War. The statisticians Guo Zuchao and his colleague Xue Zhongsan, both alumni of JHSPH, were put in charge of completing the public health work begun during the Korean War.<sup>44</sup> At the domestic level, the Ministry of Health conducted a national survey on bed numbers in all public health facilities, including hospitals and county health centers. In 1953, officials surveyed 172 health units throughout China and concluded that the statistics were mostly false, either due to the staff members' absent-mindedness or attempts to exaggerate their achievements. The ministry then published the results in the State Statistics Bureau's *Statistical Work Bulletin*, listing the errors and calling for accurate statistical reporting. At the end of the article, the author quoted Zhu De, the PRC's vice-chairman: "[F]aking statistics is a crime against the country and the people."<sup>45</sup> These words are an evocative testament to the PRC leaders' frustrations regarding chaotic reporting in the field and their calls for improvement. Socialist statistics may have changed the way statistics were practiced, but the PRC officers did not abandon the use of numbers for governance.

In the same vein, statistics were the linchpin of the Patriotic Health Campaign itself. The Campaign's leaders published aggregated numbers on vectors eliminated, rubbish removed, and drainage systems and wells built; this showcased the broad impact of mass mobilization and created a sense of community among citizens. The Communist Party ordered public health experts to teach local cadres how to collect statistics on the ground and used statistics to plan public health campaigns. Although the existing historiographies do not indicate the names of the health experts who carried out the training, Xu was probably among them, as he was based in Shanghai and in charge of organizing statistical training for health officials, which matches Miriam Gross' account.<sup>46</sup>

<sup>43</sup> Gross, *Farewell to the God of Plague*, 23; Bu, *Public Health and the Modernization of China, 1865–2015*, 224, 233.

<sup>44</sup> Wo Hongmei, "Zhongguo yixue tongjixue fazhan jianshi [Brief History of China's Medical Statistics, 1949–2012]," 71.

<sup>45</sup> Translated from: Weisheng bu [Ministry of Health], "Guanyu jiancha tongji gongzuo de jianyao baogao [Brief Report on the Examination of Statistical Work]," *Tongji gongzuo tongxun [Statistical Work Bulletin]*, 11 (July 3, 1953).

<sup>46</sup> Gross, *Farewell to the God of Plague*, 224–5.

Gross argues that statistical practices were an important element in the Patriotic Health Campaign, allowing local Party cadres to obtain a basic understanding of science, even during the various thought-reform initiatives, when scientists were undermined and forced to leave their positions. Despite problematic reporting on the ground, the use of statistics in health campaigns helped to educate a group of Party officials, who were then able to grasp basic scientific research techniques and apply them to policy-making. Along with map-making techniques, the use of statistics ensured the spread of scientific thinking, even during the Cultural Revolution, when most scientists were persecuted by the regime.<sup>47</sup>

Also during the period under study, the Chinese statisticians educated at the JHSPH began very different career paths. Xu remained at Shanghai First Medical School, but Guo Zuchao and Xue Zhongsan were recruited by the People's Liberation Army to compile and publish information on the PRC's military health achievements during the Korean War. They both went on to become army health statisticians. Guo left Central University in 1951 and became a professor of public health statistics at the Fifth Military Medical University, where he oversaw statistical forms on public health matters within the army. He became a Party member in 1956. A year later, Guo published *Teaching Guidelines on the Public Health Statistical Practices of the People's Liberation Army*, which served as the reference for health-related statistical work in the army.<sup>48</sup> Xue left the Shanghai University of Finance and Economics to also become a professor at the army health laboratory at Shanghai's Secondary Military Medical University. He remained a member of the People's Liberation Army until his death in 1988.

### The Great Leap Forward: Anchored by Statistics

The period covered by the first five-year plan was marked by the Communist Party's efforts to consolidate its governance through nation-building and collectivized agriculture, which integrated the entire country into a national movement. The period immediately afterward was marked by the Great Leap Forward, during which efforts were focused on accelerating production by means of omnipresent control over the governance structure established under the plan. By the end of the first five-year plan,

<sup>47</sup> Ibid., 228, 235–6.

<sup>48</sup> Zhongguo renmin jiefangjun weisheng tongji gongzuo jiaofan. I was unable to acquire a copy of these guidelines. Guo's statistical work for the PRC military is described in: Wo Hongmei, "Zhongguo yixue tongjixue fazhan jianshi," 16.

China's economy was growing steadily following the Soviet Union's economic model. Mao's ambition, however, was to increase China's productivity and outstrip developed countries such as the United States and United Kingdom through mass mobilization. Mao began to implement his mass mobilization method as the first five-year plan was drawing to a close.<sup>49</sup> At that time, in 1957, agricultural collectivization – a system under which farmworkers were paid salaries, regardless of their output – had spread rapidly and extensively across China.<sup>50</sup> Mao discarded the draft for a second five-year plan, however, and instead launched the Great Leap Forward, with the official aim of accelerating economic production to exceed that of the United Kingdom and the United States in ten years. People's communes were established across the country, regrouping tens of thousands of households into farm collectives. The people's communes were put under pressure to accelerate production in both agriculture and steel, as production of the latter was considered the first step toward industrialization. Mao's ideas and methods diverged from those of Soviet Union experts, whose influence had waned significantly, especially following the Sino-Soviet split. In 1960, the Soviet Union recalled most of its experts from China.<sup>51</sup>

The PRC government simplified the many forms that statisticians, in consultancy with Soviet Union experts, had devised to document every aspect of the country's public administration.<sup>52</sup> And yet numbers remained central, at least as rhetorical tools, given that the Great Leap Forward was based on mass mobilization and officers used statistics as a way of gauging the progress achieved. Mao set quantitative goals on production, and statistical data were the core metric for assessing accomplishments. This was made explicit in an editorial that appeared in *Statistical Work*:

Now, people across the world are eagerly awaiting the output of our Great Leap Forward. In order to summarize and inform the world quickly of our accomplishments, we should strive for the Great Leap Forward of producing yearly

<sup>49</sup> Odd Arne Westad, *The Global Cold War: Third World Interventions and the Making of Our Times* (Cambridge: Cambridge University Press, 2005), 69.

<sup>50</sup> John K. Fairbank and Merle Goldman, *China: A New History, Second Enlarged Edition* (Cambridge, MA: Harvard University Press, 2006), 352; Xun Zhou, *Forgotten Voices of Mao's Great Famine, 1958–1962: An Oral History* (New Haven, CT: Yale University Press, 2013), 14.

<sup>51</sup> The PRC not only cut off relations with the Soviet Union, it also competed with it to become the leading model of economic development among countries in need of aid. See, e.g.: Jeremy Friedman, *Shadow Cold War: The Sino-Soviet Competition for the Third World* (Chapel Hill, NC: University of North Carolina Press, 2015).

<sup>52</sup> Wo Hongmei, "Zhongguo yixue tongjixue fazhan jianshi [Brief History of China's Medical Statistics, 1949–2012]," 152.

statistical reports. ... This is not only professional work, but also a political mission.<sup>53</sup>

During the Great Leap Forward, control of statistical collection passed from the State Statistical Bureau to local Party leadership.<sup>54</sup> Mao encouraged the local cadres of the people's communes to acquire statistical knowledge so that they could use statistics to communicate local realities to the Party leadership for centralized policy-making.<sup>55</sup> Valuing grass-roots mobilization, the Party trained local cadres to report statistics so that the central government could tackle problems objectively and without bias.<sup>56</sup> Each people's commune had its own statistics agency. Some communes also organized health survey teams with their leaders, who oversaw health statistics in the communes.<sup>57</sup> Nevertheless, the quality of the statistics collected remained questionable. In an oral history collected by Zhou Xun, Huang Manyi, a woman who was part of a people's commune in eastern Anhui, recalled life during the Great Famine that ravaged China a year after the Great Leap Forward began: "Our village used to be quite big, with a few hundred people. But in those days hardly anyone was left in our village. More than half of the villagers died during the famine, including quite a few entire families. But there were no official [death] statistics. Even now it's still forbidden to talk about what happened."<sup>58</sup>

The taboo on collecting death numbers dominated at the village level. The number of deaths as reported by the local cadres is therefore questionable, if not completely fabricated. The epidemiological reporting system also had limited capacity: Fang Xiaoping recounts how a disease outbreak took fifteen days to be confirmed by the central government, as the large size of the people's communes made epidemic reporting difficult. Fang also indicates that disease reporting became much faster when the size of the people's communes was reduced nationwide after 1962.<sup>59</sup>

The Great Leap Forward pushed the people's communes to make ever greater efforts to achieve the numbers needed. And as Mao announced new goals based on the statistics reported from the previous season, local production was caught in a vicious circle of impossibly high expectations.

<sup>53</sup> The Editor's Office, "Lizheng tongji nianbao gongzuo de dayuejin [Strive for a Great Leap Forward in Annual Statistical Reports]," *Tongji gongzuo [Statistical Work]*, no. 23 (1958): 5.

<sup>54</sup> Nai-Ruenn Chen, ed., *Chinese Economic Statistics in the Maoist Era: 1949–1965* (New Brunswick: Transaction Publishers, 2009), 56.

<sup>55</sup> Gross, *Farewell to the God of Plague*, 209.

<sup>56</sup> *Ibid.*

<sup>57</sup> Fang, "Diseases, Peasants, and Nation-Building in Rural China," 61.

<sup>58</sup> Zhou, *Forgotten Voices of Mao's Great Famine, 1958–1962*, 141.

<sup>59</sup> Fang, "Diseases, Peasants, and Nation-Building in Rural China," 61–2.



Scholars have also demonstrated that these inflated numbers were eventually crucially detrimental to Mao's governance, as he failed to grasp the true situation. Over-mobilization eventually resulted in widespread famine, leading to the deaths of between 11 million and 60 million people, according to various estimates.<sup>60</sup> Some scholars go further, arguing that it was the local leadership's exaggeration of economic statistics that caused the Great Famine.<sup>61</sup> There was no difference when it came to public health work: Zhou Xun's research chronicles the chaos on the ground with regard to statistical collection both before and during the Great Leap Forward. Without explicitly citing sociologists of quantification, Zhou describes a scene of "reactivity" toward the governance of statistics. That is, the collection of numbers was not only a way of reflecting the reality in the field, but also shaped how stakeholders conceived the subject matter, which changed how they reacted, with a view to obtaining the numbers they preferred.<sup>62</sup> Zhou writes that fieldworkers "came up with makeshift solutions," such as using government funds to buy snails to kill in order to meet the quota set by their superiors, or would simply "fabricate the numbers."<sup>63</sup>

Mass mobilization during the Great Leap Forward also impacted health statisticians at the Shanghai First Medical School. The school magazine meticulously documented how faculty members within the public health department were criticized by colleagues and students during the school's rectification movement. As early as March 1958, the magazine published criticism of the public health department for its lack of policy concern, thought education, or understanding of China and workers' lived experience.<sup>64</sup> Xu Shijin and his colleagues were sent to work in factories, epidemic prevention centers, and the Shanghai

<sup>60</sup> See, e.g.: Fu, *Autocratic Tradition and Chinese Politics*, 304; Xun Zhou, *The Great Famine in China, 1958–1962: A Documentary History* (New Haven, CT: Yale University Press, 2012), 43.

<sup>61</sup> Kenneth Walker's theory is the best known and stresses how the local leadership's exaggeration of grain production led to a high grain procurement rate, which led to local famine (Kenneth Walker, *Food Grain Procurement and Consumption in China* [Cambridge: Cambridge University Press, 1984]). Nevertheless, as Kimberley Ens Manning and Felix Wemheuer have indicated, some scholars argue that the Great Famine was actually due to other causes, such as bad weather (Kimberley Ens Manning and Felix Wemheuer, eds., *Eating Bitterness: New Perspectives on China's Great Leap Forward and Famine* [Vancouver: University of British Columbia Press, 2011], 9–10).

<sup>62</sup> Espeland and Sauder, *Engines of Anxiety*, 7, 196–8.

<sup>63</sup> Zhou, *The People's Health*, 60, 153.

<sup>64</sup> "Weishengxi jiaoxue gongzuo zhenggai fangan (Chugao) [Proposal to Reform the Public Health Department Following the Rectification Movement (First Draft)]," *The Magazine of the Shanghai First Medical School*, March 14, 1958.

Municipal Health Bureau for two hours per week.<sup>65</sup> Although thought reform impacted faculty members' weekly schedules, statistical practices became even more central to the department's curriculum. The course "Vital and Health Statistics" became a requirement for first-year students.<sup>66</sup> The teaching and research unit within the department asserted the importance of the principle of demonstration and statistical collection during the Rectification Movement, justifying the method as a way of customizing Soviet public health theories about water supply systems to rural China.<sup>67</sup> In terms of statistical discourse, members of the unit thus had aspirations similar to those of their interwar predecessors in Beijing and Ding Xian (see Chapters 2 and 4). Both generations had hoped to use statistical practices to import foreign theories and tailor health policies to the Chinese context. Experts occupying teaching positions, however, came under attack despite this continuity of thinking.

The events recounted above show that statistics remained a salient aspect of public health research and policy-making during the Great Leap Forward, possibly even more so than before, as statistics were needed to govern mass mobilization. Even though the academic statistician Xu became the target of criticism at the Shanghai First Medical School, vital and health statistics nonetheless became even more central to teaching and research.

### A Short-Lived Comeback for Mathematical Statistics

It is telling that mathematical statistics began to reappear in Chinese public health textbooks only a year after the Soviet Union canceled its technical assistance to China and repatriated its experts. In 1961, Xu published *Guidelines for Self-Learning Public Health Administration*, in which he detailed public health campaigns in China from the interwar period to the PRC years.<sup>68</sup> With a special focus on the PRC's public

<sup>65</sup> "Lai ge jiaoxue dafanshen bancheng yi ge Zhongguo de weishengxi – weishengxi zhakai jiaoxue zhenggai cujin dahui [Let's Change Training and Organize a Chinese Public Health Department, Teaching Reform Meeting Convened by the Public Health Department]," *The Magazine of the Shanghai First Medical School*, April 4, 1958.

<sup>66</sup> Ibid.

<sup>67</sup> "Xiaomie san duo san shao, baozheng jiaoxue zhiliang tigao – huanjing weisheng jiaoyanzu tichu zhenggai jihua [Eliminating the Three Excesses and Three Lacks to Improve Teaching Quality: The Environmental Health Research and Teaching Unit Proposes Reforms]," *The Magazine of the Shanghai First Medical School*, March 28, 1958.

<sup>68</sup> Xu Shijin, *Baojian zuzhixue zixue zhidao [Guidelines for Self-Learning Public Health Administration]* (Shanghai: Shanghai First Medical School, 1961).

health organizations, from the Patriotic Health Campaign to the people's communes, Xu included statistical methods (covering mathematical statistics) ranging from survey design, data tabulation, and standard deviations to random sampling and the chi-squared test.<sup>69</sup> Though they were relegated to the annex, the fact that mathematical statistics were included at all can be considered part of their gradual reintegration, which was likely due to the departure of most Soviet experts after the Sino-Soviet split. Three years later, Guo and Xu published a second version of Guo's textbook with a new title, *Medical Mathematical Statistics Methodology*, in which the return of mathematical statistics was blatant. The textbook devotes only two chapters on descriptive statistics, and five others on deviations, secondary and Poisson distribution, normal distribution, statistical significance, and linear regression.<sup>70</sup>

This comeback for mathematical statistics was short-lived, as the Cultural Revolution led to the suppression of the statisticians' research venues. Xu's research and teaching activities were discontinued during the Cultural Revolution, when he was stigmatized as an anti-revolutionary academic authority. It was not until 1979 that Xu, in collaboration with his colleagues at the Shanghai First Medical School's public health statistics teaching and research unit, published another textbook, *Medical Statistical Methods*.<sup>71</sup> Guo and Xue, despite their positions within the military system, were also persecuted.

At the beginning of the Cultural Revolution, as during the Great Leap Forward, there was a reliance on vital and health statistics despite the criticisms of trained statistical experts.<sup>72</sup> For instance, during the first two years, the City of Shanghai undertook statistical collection reform and continued to collect vital and health statistics. The Ministry of Health informed its partners at the provincial and municipal levels that public health reporting forms had been simplified, but it continued to issue a monthly epidemic report and a biannual report on family planning. At the end of the decree, the Ministry of Health declared:

This year is the year that the proletariat's Cultural Revolution blooms. Collect actively, compile actively, and report actively, as this year's statistical data is

<sup>69</sup> Ibid.

<sup>70</sup> Guo Zuchao, *Yiyong shuli tongji fangfa [Medical Mathematical Statistics Methodology]*, eds. Xu Shijin and Li Guangyin (Beijing: Renmin weisheng chubanshe [People's Public Health Publishing House], 1963).

<sup>71</sup> Shanghai diyi yixueyuan weisheng tongjixue jiaoyanzu [Shanghai First Medical School Public Health Statistics Teaching and Research Unit], *Yixue tongji fangfa [Medical Statistical Methods]* (Shanghai: Shanghai kexue jishu chubanshe [Shanghai Science and Technology Publishing House], 1979).

<sup>72</sup> For example, Ghosh mentions that the State Statistical Bureau was particularly hard hit by the Cultural Revolution (Ghosh, *Making It Count*, 278).

meaningful. We hope that each province, self-governing region and municipal health bureau, based on the spirit of “grasp revolution and improve production,” so as to secure the success of the proletariat’s Cultural Revolution, will allocate appropriate resources to secure the public health statistical report for the year 1966.<sup>73</sup>

Like Mao’s appeal during the Great Leap Forward, the quotation shows that statistical collection continued to be used in the PRC’s public health administration at the outset of the Cultural Revolution. Even as experts were ousted and stigmatized, the administration tightened its grip on statistics for use in governance. A lack of access to archives makes it difficult to determine exactly how numbers were used during the Cultural Revolution. What is certain is that the administration’s faith in statistics was not completely destroyed, as three important health statisticians – Xu, Guo, and Xue – regained their positions and resumed publishing in the 1970s.

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This chapter has shown that the PRC’s decision to withdraw from the WHO was not a turn away from statistics. Despite refusing to share its numbers with the WHO, the regime carried on collecting vital and health statistics and shared them with other socialist countries.

Three threads of vital and health statistical practices intertwined with one another at one time or another during this period. First, there were the statistical practices employed at the national level, through which socialist statistics were imported to the PRC via Soviet experts and the State Statistics Bureau in the 1950s. But even when socialist statistics were at their most dominant, public health experts carrying out fieldwork – the second thread – had some independence in the ways they used numbers for their research and other activities, although mathematical statistics disappeared from textbooks. The fieldwork-based research of these experts involved demonstrations and test points that used the logic of sampling, a type of reasoning that socialist statisticians opposed. This in turn impacted the third thread – statistical collection for governmental health campaigns – as the same experts oversaw the training of officers in statistical collection at the beginning of the PRC. Statistical collection continued to have an important role in PRC health campaigns, despite statistical experts being persecuted during various periods. During the

<sup>73</sup> Translated from: Weisheng bu [Ministry of Health], “Ge sheng, zizhiqu, weisheng tingju [To the Departments and Health Bureaus of Provinces and Self-Governing Regions],” November 17, 1966, B242-1-1764, Shanghai Municipal Archives.

Great Leap Forward and the beginning of the Cultural Revolution, the PRC government repeatedly proclaimed the importance of statistical reporting for grasping local conditions and forming policies.

The events related here present an interesting case study in how statistical experts' authority and the authority of statistics interacted. The early years of the PRC indeed present a somewhat extreme example in that experts were constantly deprived of their authority during this period. Yet, even while public health statistical experts were losing their authority, the PRC administration was placing growing importance on the use of numbers for public health campaigns. PRC officers constantly emphasized and amended statistical reporting systems for their campaigns, as they were aware that collection on the ground was problematic. Indeed, statistical practices remained central within health campaigns, but the work was increasingly carried out by local cadres instead of public health experts. It is also likely that the comeback of public health statistical experts such as Xu Shijin, Guo Zuchao, and Xue Zhongsan following the Cultural Revolution was made possible by a continued faith in the power of statistics.