

A Pint of ABO

The Currency of Life and Death in China's HIV Epidemic

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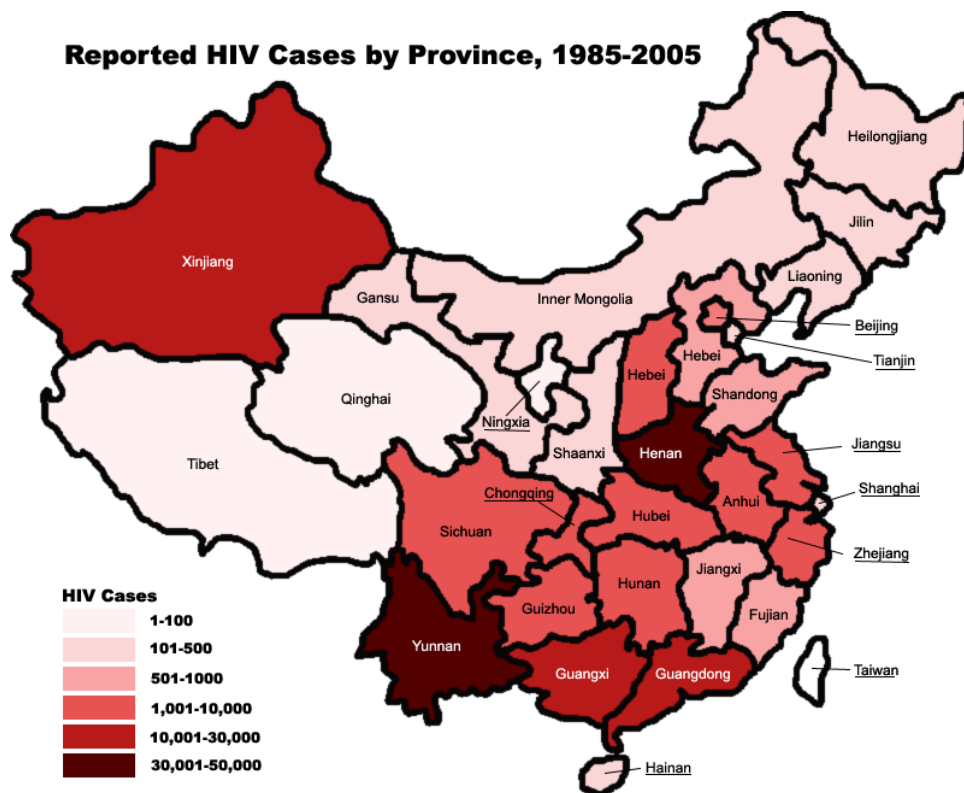
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1



She told a tale of death. Peering out from red-rimmed glasses, 79-year-old Gao Yaojie sat in her cluttered apartment, surrounded by brown paper packages. She told the story of one village she had visited, where half of the 3000 residents had sold their blood and 800 had tested positive for HIV. “Can you believe it?” she asked, blinking intensely.²

The Zhengzhou city sounds drifted faintly into the room as Gao waited for her students to arrive. Once a week, they came to help her wrap her books in sturdier binding. They would be delivered on her next trip out of the city, to educate the patients she met about the virus that was sweeping through their homes. Laughter filled the living room on the days her students were

¹ ACT UP, *Reported HIV Cases by Province, 1985-2005*, 2011, accessed March 28, 2017, <https://lhddt.files.wordpress.com/2011/08/hiv-prevalence-map4.png>.

² *Zhongyuan ji shi* [The Central Plains], directed by Xiaoming Ai (Apollo Net, 2010), accessed February 1, 2017, <https://www.youtube.com/watch?v=1v7KpRzMYx4>.

there. They discussed the last medical conferences they had attended and the evening news; they teased their teacher about her frugality with the bookbinding thread. Though she spoke only occasionally, Gao hovered comfortably in their midst, glad of the company. For ten years—since 1996—this had been her life.

Gao Yaojie was one of the first physicians to recognize the AIDS epidemic festering in China's Henan Province. A subject of extensive research around the world today, HIV in the 1990s was still fairly mysterious. Upon its discovery, it gained notoriety as an affliction among gay men, an incomplete characterization that it has historically struggled to shed. For China, a country only just embarking on the dual path of modernization and industrialization at the time, traditional worldviews were particularly difficult to change. This naivete contributed catastrophically to the spread of HIV. As leaders in power grappled with both disbelief and denial, the virus oozed outwards from the heartland, sustained by the abject poverty of the rural masses. While existing reports have focused on specific elements of the Henan outbreak, none paint a full picture of the circumstances. The aim of this work is to provide a comprehensive narrative of this critical period, drawing together evidence from historical, political, sociological, and public health realms. Additionally, I will present new revelations that tie together the heroines of this story in a previously unknown way.

The contents have been divided into broad sections. I will begin by exploring the origins of the blood products industry. What began as an exciting new technology for saving lives was marketized over time, normalizing the use of professional blood donors. Then, tracing this economy from the United States to China, I will delve into the years of the HIV epidemic itself, concentrating on the structures and individuals in Henan closest to the events. In particular, I will focus on two women—Gao Yaojie and Wang Shuping—who, under different circumstances and

through different actions, played equally vital roles in bringing this hidden scourge of China's farmers to light. Finally, I will review the impact of the epidemic on a national scale. While the contemporary public health landscape offers signs of hope, the dream of a clean blood supply and a properly compensated peasantry defies reality.

I conclude that the devastating rise of HIV/AIDS was dependent on unique features of Chinese society, not necessarily on a special virulence of the disease itself. Both the internal residence registration scheme and the chaotic transitional economy contributed to the country's susceptibility, but it was the delayed response of the central government that ultimately did the most harm. Under a cloud of confusion fueled by deceptive local authorities and their own instinctive suspicion of whistleblowers, officials allowed the virus to continue disseminating for years unimpeded. For far too many Chinese citizens, this tipped the scale from life to death.

I. Blood

Intravenous transfusions are among the most routine medical procedures performed today. During patient intake, a nurse will typically insert a central line before the conversation ends, and paramedic protocol is to secure a patient IV while still in the back of the moving ambulance. But this technique was not always so simple—for decades, in fact, the art of the effective transfusion occupied medicine's brightest minds. With the eventual breakthrough came the dawn of a new age: blood was freed from its corporeal confinement to circulate between bodies separated by space and time. I will trace how the rise of this multimillion-dollar blood products industry

redefined the human blood donor in economic terms, and how these trends ultimately precipitated the HIV epidemic in China.

Meeting Demand: The Need for Professional Donors

Blood as a transferable resource was established by Dr. Alexis Carrel. On a cold night in 1908, he received a house call that would alter the trajectory of his profession. A surgeon by training, he was, at the time, studying hematology at the prestigious Rockefeller Institute for Medical Research, and his previous work in microsurgery had already earned him a pioneering reputation. It was for this reason that his colleague Adrian Lambert came knocking.

Lambert's wife had just given birth to a baby girl, but the child was bleeding heavily from her nose and mouth. Without an immediate transfusion, she would die.³ Due to the infant's size, Carrel was their only hope—he had nearly perfected a technique to stitch together impossibly small arteries and veins (a method called anastomosis) while other surgeons were unsure of how to even approach such vasculature.⁴ Hurrying to their home in the Garment District, he assessed the situation.

The baby was ghostly pale but still breathing, huddled in her mother's arms. Carrel immediately had Lambert lay down next to her as the donor and, with practiced precision, neatly exposed the artery in his left wrist. Aligning this incision with the girl's right knee, he made the final cut and began to suture the two vessels together into a triangular fistula. Seconds ticked by—but then a rosy hue filled the tips of the child's ears, flowing down through the rest of her

³ Douglas Starr, *Blood: An Epic History of Medicine and Commerce* (London: Little, Brown, 1998), 30.

⁴ *Ibid.*, 33.

body. She opened her mouth and began to cry.⁵ The first modern blood transfusion was complete.

Though Carrel's procedure was a momentous step forward, years would pass before it became both safe and practical. Indeed, he had been enormously fortunate that Mr. Lambert and his daughter shared a blood type (a phenotype of which he was then unaware); the transfusion could just as easily have ended in gruesome inflammation.⁶ Shown the lifesaving promise of this new skill, physicians funneled their energy into improving its clinical usability. Syringes and rubber tubing replaced scalpels and open contact, but it was sodium citrate that truly revolutionized the field.⁷ Dr. Richard Lewisohn discovered that a 0.2% citrate concentration was highly effective for preventing blood coagulation without side effects, and by injecting this solution into jars of freshly collected blood, the units maintained their fluidity.⁸ Whereas previously, "blood on the hoof" transfusions—in which emergency donors were called to the hospital for direct funneling of blood to the patient—had been the sole means of operation, anticoagulant technology allowed storage of blood for future use.⁹ Subsequently in the 1920s, from London to Saint Petersburg, the blood banking industry took root.

When Dr. Bernard Fantus of Chicago's Cook County Hospital coined "blood bank" to describe the blood exchange he had set up, it was with intentional reference to the principles of finance. Much like an actual bank, a blood bank would dissolve unless the amount of blood withdrawn equaled the amount deposited.¹⁰ In short, it was a reminder that finding donors needed to be a priority.

⁵ Douglas Starr, *Blood: An Epic History of Medicine and Commerce* (London: Little, Brown, 1998), 34-35.

⁶ *Ibid.*, 39.

⁷ *Ibid.*, 42.

⁸ *Ibid.*, 47.

⁹ *Ibid.*, 53.

¹⁰ Kara W Swanson, *Banking on the Body* (Cambridge, MA: Harvard UP, 2014), 5-6.

There were two competing philosophies for donor recruitment. Originally, relatives and friends comprised the pool from which doctors chose a match, but this method was inefficient, since each new patient required a full elimination process. Dr. Bertram Bernheim offered a different solution. He visited the boardinghouses for low-income men in Baltimore and struck a deal: \$50 for donating their blood. These down-and-out men quickly developed into a steady supply for the blood bank, returning whenever they needed cash.¹¹ However, witnessing their near-constant drunkenness and fearing syphilis contamination of his stock, Bernheim eventually grew dissatisfied with the situation. He began to cultivate a separate list of medically-cleared donors whom he considered more reliable. Thereafter, whenever the bank ran low or a doctor sought a specific blood type, they consulted this list to call in a “professional” donor.¹²

These men were professional in the sense that they had been pretested for disease and claimed a permanent address—they were not the roving beggars that Bernheim had initially employed. There was even a sense of respectability conferred onto this new breed of repeat donor; during the Roaring Twenties and especially during the Great Depression, such blood sellers were hailed as savvy businessmen, marketing their bodily property for livelihood.¹³ Thus, the idea of blood as a commodity and the individual as a manufacturer was normalized. Globally, this setup would be used to feed the burgeoning blood products economy, most prominently for the plasma industry that erupted in the 1940s.

Plasma research came into vogue for the U.S. military due to the ravages of World War II. Blood loss and the consequent inadequacy of tissue oxygenation (medical shock) incapacitated droves of soldiers in battle, and the Army sought a method of preventing these

¹¹ Kara W Swanson, *Banking on the Body* (Cambridge, MA: Harvard UP, 2014), 40.

¹² *Ibid.*, 41.

¹³ *Ibid.*, 44.

casualties. At Harvard Medical School, chemist Edwin Cohn cracked the puzzle.¹⁴ Through a series of fractionation experiments, he was able to separate out the pure components of plasma after five centrifugation cycles with ethanol. The final isolate was a white powder—albumin. This nonreactive protein had the ability to absorb vast amounts of liquid. When administered physiologically, the osmotic pressure it created drew interstitial fluid into the blood vessels, promoting tissue circulation. After an albumin trial for 87 injured soldiers at Pearl Harbor produced only four negative reactions, the Army classified the precious information.¹⁵ Upon postwar relaxation of these restrictions, Cohn continued his plasma derivative work. With upgraded technology, he turned four units of whole blood into sufficient components for six recipients, from blood cells to plasma salts. This was his waste-minimizing “blood economy,” but it was the discovery that gamma globulin (antibody immunoglobulin) could protect against polio that marked the ascent of the blood economy as it is known today.¹⁶ The National Foundation for Infantile Paralysis purchased all of the gamma globulin produced in the United States that year and every year until the Salk vaccine was introduced in 1953.¹⁷ Sensing a lucrative opportunity, pharmaceutical companies that had turned away from expensive plasma fractionation reversed course. The following decades saw for-profit blood banks emerge across the country, stocking hospital shelves with Factor VIII clotting protein, albumin, gamma globulins, and other assorted treatments. In the 1980s, this market penetrated China at tremendous cost for its people.

¹⁴ Douglas Starr, *Blood: An Epic History of Medicine and Commerce* (London: Little, Brown, 1998), 101-02.

¹⁵ *Ibid.*, 104.

¹⁶ *Ibid.*, 177-78.

¹⁷ *Ibid.*, 176-77.

Smart Business: The Rise of Blood Collectors in China

As early as the 1950s, albumin had also been prized in China as a blood volume supplement, though it was rare in supply. Over time, as foreign materials trickled in, it developed into a status symbol, given only to important officials, much like other informal gifts.¹⁸ In a nation that culturally already valued blood as a sacred life force, the association between albumin and prestige fit easily into a health narrative: albumin “booster” infusions gained popularity for their supposed nutritional and energy benefits.¹⁹ Pharmaceutical companies capitalized on the growing demand by granting kickbacks to hospitals who prescribed albumin and related blood products; coming at a time when state healthcare expenditure declined in favor of private payment, physicians under financial pressure increasingly sold these drugs to patients with overinflated testimonies of their effectiveness.²⁰

Up to this point, the Ministry of Health in Beijing had allowed the free flow of overseas blood products into China, knowing that the nascent domestic industry was nowhere near the critical mass to meet needs. But as news of a disease called HIV spread, they changed their minds (quite ironically, as events would show). In 1984, the central authorities imposed heavy restrictions on all imported blood products except albumin, citing concerns over contamination by intravenous drug users and homosexuals abroad. Accordingly, incentive appeared for local blood processors to continue supplying Chinese demand for blood products. Over the next decade, as consumer familiarity with plasma and its derivatives grew steadily, there was a surge

¹⁸ Informal gifts are a central component of “grey income” in China. In various sectors but especially in the political arena, off-the-books gifts (e.g. money, goods) help foster positive professional relationships. These professional relationship networks, called *guanxi*, can be used to secure better referrals for promotion or reciprocal favors down the road. They are often used as back channels to power.

¹⁹ Shao Jing, “Fluid Labor and Blood Money: The Economy of HIV/AIDS in Rural Central China,” *Cultural Anthropology* 21, no. 4 (2006): 544-45.

²⁰ *Ibid.*, 545-46.

in blood collection stations. So many were established in Henan Province alone that the production from this region could have easily filled the national plasma reserves.²¹

Thus profit motive was key in the explosion of blood collectors by the early 1990s, but the primary driver of increasingly aggressive blood collection schemes was political pressure. Perpetually experiencing shortages in blood supply that hobbled medical care, Beijing instituted donation quotas for each lower level of government. Counties and districts passed their quota burden down onto individual work units within their jurisdiction—factories, offices, and universities were tasked with collecting the monthly quantities under threat of being refused blood products during future hospitalizations. Employees were therefore encouraged to donate at every turn, but the traditional notion of blood as a source of vigor impeded their efforts. No matter how hard they tried, volunteers were simply insufficient to meet the blood quotas. In this environment, paid blood donation services rose to prominence. Founded mostly in poor rural regions, blood and plasma collection stations farmed locals for supply and then sold the units at profit to desperate employer groups.²²

The emphasis on commercialization exhibited here was not unique within the grand context of human tissue donation. Indeed, since the time of Bertram Bernheim, financial incentive had existed in a delicate balance with the special “gift” nature of these transactions. As the reasoning went, if money was made at every other juncture, the human donor too should be compensated.²³ But the danger of these new Chinese businesses was the complete eschewal of the charitable agenda that giving blood was supposed to serve. These donations would save lives,

²¹ Shao Jing, "Fluid Labor and Blood Money: The Economy of HIV/AIDS in Rural Central China," *Cultural Anthropology* 21, no. 4 (2006): 547.

²² Hua Shan, Jing-Xing Wang, Fu-Rong Ren, Yuan-Zhi Zhang, Hai-Yan Zhao, Guo-Jing Gao, Yang Ji, and Paul M. Ness, "Blood Banking in China," *Lancet* 360, no. 9347 (2002): 1771.

²³ Kieran Healy, *Last Best Gifts* (Chicago: Chicago UP, 2010), 129.

yet the import of their deed was never conveyed to the peasants that gathered at the collection stations. It had been diluted out by local governments' and work units' scrambling for product to avoid punishment. While Western egg donation firms, for example, would purposely reassure women that they were not simply "selling pens" to imbue them with their deserved sense of agency, a mechanistic approach was preferred and facilitated among Chinese plasma donors.²⁴ Blood collectors saw the peasants as cattle, not savvy businessmen; they were "professional" in that their bodies produced a resource, but no more. Consequently, the power (e.g. to hold blood collectors accountable) that rural residents should have had as the foundation of the entire arrangement was transferred to their recruiters instead.

It is perhaps unsurprising then that things took an even greedier turn in Henan. According to an anonymous whistleblower, the provincial Department of Health (DOH) began to invest in their own private plasma stations. Under Director Liu Quanxi, the bureau created five new positions focused on promoting the blood products business, and the mission of the DOH was reoriented towards maximizing plasma profits. Peasants comprised 80% of Henan's population, and though only a fraction of those would donate blood, the institution could still earn hundreds of millions of RMB by selling the raw material to companies in Shanghai and Wuhan.²⁵ With the power of formal licensure, Liu's administration rubber-stamped countless plasma stations from 1992 to 1993. At its peak, Kaifeng prefecture alone contained over 200 such collection centers. The boldest move was seeking partnerships with U.S. pharmaceutical companies. Liu reassured the foreign executives that Henan blood was clean—without homosexuality or drug abuse problems, there was no HIV; he promised them it was cheap (they were farmers, after all). He

²⁴ Kieran Healy, *Last Best Gifts* (Chicago: Chicago UP, 2010), 130.

²⁵ Marilyn Levine, "H-ASIA: Revealing the "Blood Wound" of Henan Blood Donor," Humanities and Social Sciences Online, January 13, 2001, accessed February 13, 2017, <http://hnet.msu.edu/cgi-bin/logbrowse.pl?trx=vx&list=hasia&month=0101&week=b&msg=IVGte015yUC9QWYa3eoaKQ&user=&pw=>.

even coaxed them into site visits for preliminary processing plant development. In the end, the deal never closed, but given the scale of the blood collection system by that point, it mattered little.²⁶

It was a cunning idea, to simultaneously fill the DOH coffers while augmenting the income of local peasants. Laws against paid blood collection were not passed until much later, so the real damage came from the whiff of personal corruption. Liu was rumored to have set up six plasma stations under his family's ownership. With the protection of his name, these businesses practiced much more coercive methods of donor recruitment, publicly flaunting their government connections.²⁷ But even as he dealt with this trouble, a larger storm was gathering on the horizon. The year was 1994, and farmers were beginning to get sick.

II. Outbreak

On 5 June 1981, the U.S. Centers for Disease Control and Prevention (CDC) released its Morbidity and Mortality Weekly Report on the unusual uptick in *Pneumocystis carinii* pneumonia (PCP) in Los Angeles.²⁸ Because PCP was previously limited only to severely immunosuppressed patients, the occurrence of five biopsy-confirmed cases among young homosexual men over a period of seven months generated deep concern. These patients also tested positive for candida (yeast) infections and cytomegalovirus, additional markers of

²⁶ Marilyn Levine, "H-ASIA: Revealing the "Blood Wound" of Henan Blood Donor," Humanities and Social Sciences Online, January 13, 2001, accessed February 13, 2017, <http://hnet.msu.edu/cgi-bin/logbrowse.pl?trx=vx&list=hasia&month=0101&week=b&msg=IVGte0I5yUC9QWYa3eoaKQ&user=&pw=>.

²⁷ Ibid.

²⁸ Centers for Disease Control and Prevention, "Pneumocystis Pneumonia --- Los Angeles," *Morbidity and Mortality Weekly Report* 30, no. 21 (1981): 1.

immunodeficiency; two of these men eventually died from pneumonia. The CDC concluded that “all of the above observations suggest the possibility of a cellular-immune dysfunction related to a common exposure that predisposes individuals to opportunistic infections.” Today, we know this disease as AIDS, caused by HIV. But in those early days, scientific speculation not infrequently labeled it an ailment of the “homosexual lifestyle.” For the People’s Republic of China, this prejudiced notion would soon have devastating consequences.

Prior to the turn of the century, the prevalence of HIV in China was miniscule. But by late 2000, Dr. Zeng Yi, senior AIDS researcher at the Chinese Academy of Sciences, estimated that there were some 600,000 HIV-infected people around the country.²⁹ This staggering growth from a few thousand cases to hundreds of thousands of cases occurred during the mid-1990s, principally among rural farmers in Henan. In desperate need of money and unaware of the unsafe practices of mobile blood-collecting stations, peasants turned to paid blood donation to carve out a better life for themselves. Many villages saw the majority of their residents aged 16 through 60 years donating blood at least once, and regular donation was common.³⁰

In the subsequent section, I will document the spread of HIV through these donor populations, as well as individual and institutional responses. Using local and Western sources, I will weave a picture of how the central government failed to reign in the escalating epidemic. But in order to fully understand the plight of these farmers, it is necessary first to understand the structure of Chinese society.

²⁹ Marilyn V. Beach, "'Blood Heads' and AIDS Haunt China's Countryside," *Lancet* 357 (2001): 49.

³⁰ Shao Jing, "Fluid Labor and Blood Money: The Economy of HIV/AIDS in Rural Central China," *Cultural Anthropology* 21, no. 4 (2006): 540.

The Hukou System: Perpetuation of Poverty

The story begins, as they often do in China, with the *hukou* system of household registration. Essentially, *hukou* functions like an internal passport, dividing the country into a privileged urban sphere and a neglected rural one. At birth, every child is assigned residence status based on their location and their parents' registration (the combination of both factors prevents rural *hukou* parents from obtaining an urban *hukou* for their children by simply giving birth elsewhere). Established during the 1950s famine years, the system's intention was to tie rural peasants to their land and prevent a mass relocation to the cities. In doing so, the government hoped to maintain a low price for grain in order to support heavy industry development. Importantly, the discrimination of urban from rural residents reached far beyond simple geography, for city folk were notably favored in matters such as secure employment, access to social services, and healthcare.³¹

When the old commune system was eventually discontinued, agricultural efficiency improved rapidly, resulting in an excess of rural labor. Village enterprises were set up in an attempt to soak up the surplus workers, but it was not enough.³² Agriculture as a percentage of national income had dropped from 57.7% in 1952 to 32.8% in 1978, while the agricultural proportion of the labor force remained the same.³³ Simultaneously, land allotment per capita was shrinking from an increasing population and from conversion of farmland to other uses.³⁴ Thus, Chinese peasants lost jobs, lost land, and lost income. In this climate of rural unemployment

³¹ Xiang Biao, "How Far are the Left-Behind Left Behind? A Preliminary Study in Rural China," *Population, Space and Place* 13 (2007): 181.

³² Wei-Wei Zhang, *Transforming China: Economic Reform and its Political Implications* (London: Palgrave Macmillan, 1999), 93.

³³ *Ibid.*

³⁴ Jingzhong Ye and Lu Pan, "Differentiated Childhoods: Impacts of Rural Labor Migration on Left-Behind Children in China," *Journal of Peasant Studies* 38, no. 2 (2011): 356.

came a mild relaxation of the *hukou* system, and some residents turned to the migrant worker life. Formally, only migration to towns were allowed, but hard-pressed individuals from the countryside also made the journey to large cities in search of better opportunities. Others who were too old or too poor to travel stayed behind, partially drawing on the support of migrant worker relatives, tailed constantly by the worry of how they were to eke out a living.³⁵

Rural areas lagged behind the cities in development, infrastructure, investment, and power, but it was the lack of advancement opportunity that sealed people's fates. Before 2001, education funding was delegated to lower levels of government, and since village committees had minimal budgets, these schools remained underfinanced year after year.³⁶ The few individuals who made the most of their resources were able to test into urban universities, thus obtaining one of the only legal changes to their *hukou* status. But for the vast majority of rural residents, a low-quality education and high dropout rates funneled into a life of unskilled labor with no prospect of betterment. Furthermore, for migrant and non-migrant workers alike, social safety net benefits were restricted by rural *hukou* status—the result was shoddier medical treatment, weaker insurance schemes, and little oversight from authorities.³⁷ If they got sick, they would suffer from bankruptcy in addition to illness. It was in this context that peasants first heard about a new way to make money: blood donation.

³⁵ Jingzhong Ye and Lu Pan, "Differentiated Childhoods: Impacts of Rural Labor Migration on Left-Behind Children in China," *Journal of Peasant Studies* 38, no. 2 (2011): 356.

³⁶ Xiang Biao, "How Far are the Left-Behind Left Behind? A Preliminary Study in Rural China," *Population, Space and Place* 13 (2007): 186.

³⁷ *Ibid.*, 186.

The Bloodhead Economy: Salvation and Damnation

Amidst the wheat farms of Shangcai County in southern Henan, the average farmer lived off an annual income of \$250 in the 1980s. Riding the fresh waves of a liberalized market in the wake of the “opening up” economic reforms, the blood economy found its legs in quiet villages across the central plains of China.³⁸ To fill the persistent demand for blood and sensing a favorable environment, commercial middlemen began to set up blood collection stations in a frenzy of activity.³⁹ Their reimbursement scheme was simple: for every pint given, the donor was paid about \$2. Peasants typically donated 80 times per year in one- or two-pint portions, amounting to \$250—doubling their agricultural income. These companies would then sell the processed blood to blood banks, hospitals, and the blood products industry.⁴⁰ With low “labor” costs and high resale prices, they turned an enormous profit, and at the height of operations in the 1990s, there were 200 government-approved stations in Henan. These “bloodheads” (*xuetou*), as they were known, became the key to building a better life for the locals.⁴¹

For some, this was literally the case. He Lin, a woman from Wenlou village in southern Henan, had used the money from her repeated blood sales to build her family a new house, complete with luxurious blue tiles. The arrival of the bloodheads had enabled her to spend for pleasure rather than for subsistence for the first time in her life. But in 2001, her husband told a

³⁸ John Pomfret, "The High Cost of Selling Blood," *Washington Post*, January 11, 2001, accessed February 1, 2017, https://www.washingtonpost.com/archive/politics/2001/01/11/the-high-cost-of-selling-blood/d0dbe9ab-11d3-4179-908f-0c43d3cf94a9/?utm_term=.b8366a467cc0.

³⁹ John Gittings, "The AIDS Scandal China Could Not Hush Up," *Guardian*, June 11, 2001, accessed February 1, 2017, <https://www.theguardian.com/world/2001/jun/11/china.internationaleducationnews>.

⁴⁰ John Pomfret, "The High Cost of Selling Blood," *Washington Post*, January 11, 2001, accessed February 1, 2017, https://www.washingtonpost.com/archive/politics/2001/01/11/the-high-cost-of-selling-blood/d0dbe9ab-11d3-4179-908f-0c43d3cf94a9/?utm_term=.b8366a467cc0.

⁴¹ John Gittings, "The AIDS Scandal China Could Not Hush Up," *Guardian*, June 11, 2001, accessed February 1, 2017, <https://www.theguardian.com/world/2001/jun/11/china.internationaleducationnews>.

visiting journalist that the extra income did not even come close to covering her medical bills. They had learned of her HIV diagnosis just before the new millennium, and antiretroviral therapy (ART) was too expensive.⁴²

This theme of tragic irony, where poor farmers sold blood in pursuit of a more decent life, only to be cut down by the HIV they contracted, resonates in village after village—China’s “AIDS villages,” as they have been dubbed by foreign press. That the destitute resort to auctioning off pieces of themselves when cornered by the circumstances has been documented around the world. India’s thriving black market in kidneys, for example, is a testament to this fact; bereft of all else, the beggars of Varanasi looked inward to their last valuable bodily possessions.⁴³ But while such endeavors usually burdened the decisionmaker alone, its manifestation in Henan caught generations of people in the same mess.

One migrant worker named Linjun did not discover he was HIV-infected until he was rejected from further blood donation in Beijing after failing their blood screen. Back in his hometown, his two-story house was nearing completion, funded by his construction work and his previous blood sales. He had purposely ordered the contractors to raise the roofline at least two bricks above those of his neighbors, in order to claim greater prestige. Now, he thought of it forlornly, knowing it would be passed down to his infant daughter’s future husband. Women did not inherit houses by custom, and since Linjun’s wife tested HIV-negative, they had decided not to risk transmission by trying for a son.⁴⁴

⁴² John Gittings, "The AIDS Scandal China Could Not Hush Up," *Guardian*, June 11, 2001, accessed February 1, 2017, <https://www.theguardian.com/world/2001/jun/11/china.internationaleducationnews>.

⁴³ Lawrence Cohen, *No Aging in India: Alzheimer's, The Bad Family, and Other Modern Things* (Berkeley: California UP, 1998), 256.

⁴⁴ Shao Jing, "Fluid Labor and Blood Money: The Economy of HIV/AIDS in Rural Central China," *Cultural Anthropology* 21, no. 4 (2006): 540.

Elsewhere, in Lankao County, the Li family fell victim to the bloodheads under pressure from a changing society. In a sharp departure from tradition, it had become unacceptable for newlywed couples to remain in their parents' home by the turn of the century. With two teenaged boys, Mr. Li had invested their savings in unsuccessful entrepreneurial ventures. When their apples failed to grow and their trucking business ran dry, the older son secretly began to sell his blood. The earnings went towards paying for high school, which is not free under China's limited nine-year compulsory education program.⁴⁵ The only way to ensure his own future became gambling with it.

Anatomy of Contamination

So how exactly was HIV spread through this blood economy? Fundamentally, it was because bloodheads ran unsanitary blood collection stations.⁴⁶ They reused needles without proper sterilization, and according to one account, dirty tubing and repository bags as well.⁴⁷ Similar cost-cutting measures at blood centers in South Carolina, Mexico, and central Europe had previously resulted in viral contamination, and in China, just like in those other places, the most heinous procedure was careless mixing of donor blood.⁴⁸

⁴⁵ John Gittings, "The AIDS Scandal China Could Not Hush Up," *Guardian*, June 11, 2001, accessed February 1, 2017, <https://www.theguardian.com/world/2001/jun/11/china.internationaleducationnews>.

⁴⁶ Richard Tomlinson, "Chinese Clamp Down on Blood Products," *BMJ* 314 (1997): 93.

⁴⁷ Elisabeth Rosenthal, "In Rural China, a Steep Price of Poverty: Dying of AIDS," *New York Times*, October 28, 2000, accessed February 3, 2017, <http://www.nytimes.com/2000/10/28/world/in-rural-china-a-steep-price-of-poverty-dying-of-aids.html>.

Marilyn Levine, "H-ASIA: Revealing the "Blood Wound" of Henan Blood Donor," *Humanities and Social Sciences Online*, January 13, 2001, accessed February 13, 2017, [http://hnet.msu.edu/cgi-bin/logbrowse.pl?trx=vx&list=hasia&month=0101&week=b&msg=IVGte015yUC9QWYya3eoaKQ&user=&pw=.](http://hnet.msu.edu/cgi-bin/logbrowse.pl?trx=vx&list=hasia&month=0101&week=b&msg=IVGte015yUC9QWYya3eoaKQ&user=&pw=)

⁴⁸ Jacques Pepin, *The Origins of AIDS* (Cambridge: Cambridge UP, 2011), 199-200.

To reduce the time investment in collection, bloodheads would group together multiple individuals on a single machine. Once whole blood was drawn, the valuable plasma was systematically separated out, residual red blood cells of all the donors were pooled in the machine, and equal portions were divvied up and automatically reinfused into the waiting donors.⁴⁹ Since blood is considered a sacred life force in Chinese culture and fears of self-inflicted anemia posed serious barriers to supply, this practice of plasmapheresis (as it is known) was an ingenious idea for promoting donation. Reassured that they were getting back the work-producing material in their blood, rural residents shed their reservations, decreasing the time between their donations and boosting the profit margin of the bloodheads.⁵⁰

This striking fear of enfeeblement by blood donation stemmed from deeply-ingrained teachings of traditional Chinese medicine. Millennia ago in the early dynasties, the dominant Taoist philosophy of upholding the patterns of the natural world promoted a reverence for harmonious interactions.⁵¹ Chief among these was the *yin-yang* doctrine. Represented as black and white, night and day, female and male, they comprised two halves of a whole cycle—one could not exist without the other. These forces were applied to all facets of life, including medicine; the correlation of specific organs with a given entity thus determined how physicians approached an ailment.⁵² The heart, as an organ situated within the predefined interior segment of the body, was classified as having *yin* character (along with the liver, kidneys, and spleen).⁵³

⁴⁹ John Pomfret, "The High Cost of Selling Blood," *Washington Post*, January 11, 2001, accessed February 1, 2017, https://www.washingtonpost.com/archive/politics/2001/01/11/the-high-cost-of-selling-blood/d0dbe9ab-11d3-4179-908f-0c43d3cf94a9/?utm_term=.b8366a467cc0.

⁵⁰ Peter D. Weinberg, Jennie Hounshell, Laurence A. Sherman, John Godwin, Shirin Ali, Cecilia Tomori, and Charles L. Bennett, "Legal, Financial, and Public Health Consequences of HIV Contamination of Blood and Blood Products in the 1980s and 1990s," *Annals of Internal Medicine* 136, no. 4 (2002): 318.

⁵¹ Charles Le Blanc, *Huai-Nan Tzu: Philosophical Synthesis in Early Han Thought* (Hong Kong: Hong Kong UP, 1985), 2.

⁵² Paul U. Unschuld, *Medicine in China: A History of Ideas* (Berkeley: California UP, 1985), 55-56.

⁵³ Organs such as the stomach and intestines that were situated within the exterior segments were classified as *yang* entities.

And, according to the classical text of Chinese medicine, the *Huang Di Nei Jing*, “the blood belongs to the heart” in an indivisible linkage of meaning, such that references to the heart denoted blood and vice versa.⁵⁴

In the contemporary era, the particulars of such antiquated medical thought no longer hold sway over the common citizen, but the cultural significance of those roots remains strong. People might not speak in terms of *yin*-character or *yang*-character, but they certainly persevered in their desire for balance. The loss of blood—what once would have equated to insufficient *yin*—now coupled with Western scientific dogma to create a hybrid unease in China’s peasants: a socialized instinct that their body would not be in equilibrium. When the bloodheads learned to mollify this urge, they did away with the donors’ last protective inhibition.

Afterwards, it was only a matter of time before catastrophe, for while the stations tested for blood type to pool compatible donors, they did not test for HIV or similar blood-borne pathogens. Indeed (as will be discussed later) one of the ways in which the HIV outbreak was first uncovered in Henan was through a parallel epidemic of hepatitis C.⁵⁵ Known to be a recurrent problem since the mid-1980s, the hepatitis C outbreak that coincided with HIV finally spurred serious studies of the risks of paid blood donation.⁵⁶ When the National Center for AIDS/STD Control and Prevention carried out its investigation in the late 1990s, they found that while 71 of 96 samples were HIV-positive at one site, 100% of plasma samples tested positive for hepatitis C and 50% were additionally contaminated with syphilis.⁵⁷ Another study conducted just as the HIV epidemic was gaining public notoriety found that, compared to an infection rate

⁵⁴ Paul U. Unschuld, *Medicine in China: A History of Ideas* (Berkeley: California UP, 1985), 76-77.

⁵⁵ Shuping Wang, "How I Discovered the HIV Epidemic and What Happened to Me Afterwards," *China Change*, September 27, 2012, accessed February 14, 2017, <https://chinachange.org/2012/10/08/dr-wang-shuping-how-i-discovered-the-hiv-epidemic-and-what-happened-to-me-afterwards/>.

⁵⁶ Jacques Pepin, *The Origins of AIDS* (Cambridge: Cambridge UP, 2011), 200.

⁵⁷ Hua Shan, Jing-Xing Wang, Fu-Rong Ren, Yuan-Zhi Zhang, Hai-Yan Zhao, Guo-Jing Gao, Yang Ji, and Paul M. Ness, "Blood Banking in China," *Lancet* 360, no. 9347 (2002): 1773.

of 0.2% among non-donors, the HIV prevalence rate among blood donors was 17%. Moreover, plasmapheresis posed a much greater risk of infection than whole blood donation alone—whereas 25.9% of plasma donors were HIV-positive, only 2.6% of whole blood donors were.⁵⁸ Luck was not on the farmers' side.

The Folly of Pride: HIV Breaches the System

With all of these unsanitary practices in place, the plasma collection network across Henan became a barrel of gunpowder. The spark was a single drop of blood. Why then did the Chinese authorities not implement more stringent safeguards against HIV contamination of the blood supply? Primarily, because of arrogance. According to exiled AIDS activist Wan Yanhai, the central government was entrenched in the belief that HIV was a disease only of debauched Western capitalist lifestyles.⁵⁹ They accepted the scientific premise of the disease, but they denied that it could gain momentum in a sober, self-restrained nation like China. The Ministry of Health (MOH) went so far as to claim in a 1985 publication following their first ever HIV case that the virus could not spread further because there were no intravenous drug users or homosexual men—in other words, that the traditional value system was an impervious bulwark.⁶⁰ Their attitude is reminiscent of former South African President Thabo Mbeki's insistence that poverty rather than HIV caused AIDS: a convenient and comforting lie (though to the MOH's credit, they did believe that HIV caused AIDS).⁶¹ Early policies to “keep AIDS out

⁵⁸ Hua Shan, Jing-Xing Wang, Fu-Rong Ren, Yuan-Zhi Zhang, Hai-Yan Zhao, Guo-Jing Gao, Yang Ji, and Paul M. Ness, "Blood Banking in China," *Lancet* 360, no. 9347 (2002): 1773.

⁵⁹ Yanhai Wan, "Pinglun: Zhongguo wu xue an yuan yu bi guan suo guo zheng ce [Commentary: China's contaminated blood scandal results from exclusionary policy]," Radio Free Asia, April 1, 2013, accessed February 4, 2017, <http://www.rfa.org/cantonese/commentaries/wyh/commentary-04012013102932.html>.

⁶⁰ Ibid.

⁶¹ Richard Horton, "Mbeki Defiant about South African HIV/AIDS Strategy," *Lancet* 356, no. 9225 (2000): 225.

of China” centered on controlling the influx of HIV-infected people and restricting import of foreign blood products. However, overly reliant on their false sense of security, domestic blood products companies rarely invested in viral elimination processes, so if their goods were contaminated, they had limited recourse.⁶² Thus, as the state continued to reject the possibility of HIV risk due to their cultural superiority, the very greed they sneered at was allowing bloodheads to flourish.

Patient zero of the Henan epidemic likely originated from Yunnan Province. Given their proximity to the Golden Triangle of opium production in Southeast Asia, southern border communities, along with western regions like Xinjiang, became epicenters of drug abuse. As injecting heroin users traveled north, they unknowingly carried HIV into the heartland.⁶³ In China’s second most populous province, they sold their blood, sometimes to plasma collection stations run by bloodheads.⁶⁴ Type-matched donors recruited in the same group were reinfused with contaminated red blood cell components. The following week, these newly-infected hosts returned and were hooked up to new individuals. Once more, their blood was pooled and redistributed.

In the wake of public outcry, the Henan Health Bureau would later attempt to defend itself by scapegoating drug users. They cited genetic tests that traced the viral lineage to strains found in southern and western border towns—the dregs of society had polluted the “pristine” supply of donors, they would argue.⁶⁵ It was a shrewd play, drawing on ingrained prejudices against drug dependence and the ethnic minorities that disproportionately populated those

⁶² Richard Horton, “Mbeki Defiant about South African HIV/AIDS Strategy,” *Lancet* 356, no. 9225 (2000): 225.

⁶³ Joan Kaufman and Jun Jing, “China and AIDS - The Time to Act Is Now,” *Science* 296, no. 5577 (2002): 2339.

⁶⁴ Marilyn Levine, “H-ASIA: Revealing the “Blood Wound” of Henan Blood Donor,” *Humanities and Social Sciences Online*, January 13, 2001, accessed February 13, 2017, <http://hnet.msu.edu/cgi-bin/logbrowse.pl?trx=vx&list=hasia&month=0101&week=b&msg=IVGte015yUC9QWYa3eoaKQ&user=&pw=>.

⁶⁵ Shao Jing, “Fluid Labor and Blood Money: The Economy of HIV/AIDS in Rural Central China,” *Cultural Anthropology* 21, no. 4 (2006): 554.

regions (such as confounding of guilt and discrimination was a not uncommon feature of AIDS outbreaks around the world).⁶⁶ But the reality is, cross-contamination in China could have been avoided with better oversight. HIV is a retrovirus that relies on cellular machinery in human CD4 T-cells to replicate. After integrating into the host genome, viral RNA and proteins are synthesized anew, and daughter virions bud off in search of the next target.⁶⁷ While the classical sign of AIDS—enhanced susceptibility to opportunistic infections—arises from the progressive immunosuppression that occurs as CD4 cells essential for proper immune function are destroyed, the bulk of HIV particles are carried in the plasma itself.⁶⁸ A simple ELISA screening procedure, commonly used to detect HIV antibodies around the world, would have been sufficient to turn away risky donors (during this period in the United States, blood banks were in fact employing a more stringent HIV DNA test).⁶⁹

Chinese MOH policy requires two rounds of testing for clinical blood products, the second to provide a more specific confirmatory result. Officials did acknowledge that blood center testing varied geographically and that some stations might not complete the full screening for all potential donors; according to one former employee of the Henan provincial ministry, regional enforcement of these rules depended entirely on the cost calculus.⁷⁰ The price they avoided was transferred to consumers instead. Teenager Song Pengfei, for example, gained

⁶⁶ Paul Farmer, *AIDS and Accusation* (Berkeley: California UP, 2006), 207-08.

⁶⁷ Gary Maartens, Connie Celum, and Sharon R. Lewin, "HIV infection: epidemiology, pathogenesis, treatment, and prevention," *Lancet* 384 (2014): 260.

⁶⁸ *Ibid.*, 259-61.

⁶⁹ Hua Shan, Jing-Xing Wang, Fu-Rong Ren, Yuan-Zhi Zhang, Hai-Yan Zhao, Guo-Jing Gao, Yang Ji, and Paul M. Ness, "Blood Banking in China," *Lancet* 360, no. 9347 (2002): 1772.

Peter D. Weinberg, Jennie Hounshell, Laurence A. Sherman, John Godwin, Shirin Ali, Cecilia Tomori, and Charles L. Bennett, "Legal, Financial, and Public Health Consequences of HIV Contamination of Blood and Blood Products in the 1980s and 1990s," *Annals of Internal Medicine* 136, no. 4 (2002): 315.

⁷⁰ Hua Shan, Jing-Xing Wang, Fu-Rong Ren, Yuan-Zhi Zhang, Hai-Yan Zhao, Guo-Jing Gao, Yang Ji, and Paul M. Ness, "Blood Banking in China," *Lancet* 360, no. 9347 (2002): 1771.

Shuping Wang, "How I Discovered the HIV Epidemic and What Happened to Me Afterwards," *China Change*, September 27, 2012, accessed February 14, 2017, <https://chinachange.org/2012/10/08/dr-wang-shuping-how-i-discovered-the-hiv-epidemic-and-what-happened-to-me-afterwards/>.

international recognition in 1999 as the tragic face of the Chinese HIV epidemic. Having contracted the disease through a hospital blood transfusion, he began to channel his platform to advocate against stigmatization of HIV patients. Living proof that HIV was not simply a disease of degenerate lifestyles, he drew attention to the simmering issue of a clean blood supply, garnering praise from many international organizations—and earning the wrath of an embarrassed Chinese government.⁷¹ But by the time they silenced his media coverage, it was far too late. The secret was out.

Henan, Exposed: The Story of Wang Shuping

Word of the HIV outbreak among former plasma donors in China was reverberating globally at the dawn of the 2000s. Yet the task of cracking the internal firewall was a years-long struggle that had begun as early as 1993. Wang Shuping, a hepatitis physician working for the public health system, was a key figure. In 2012, having relocated to the United States, she penned a personal account of what had unfolded.⁷² Her story has been referenced and corroborated by Dr. Zhang Ke, who, as of 2005, was director of the communicable disease department at Beijing's renowned You'an Hospital.⁷³

A medical doctor-turned-researcher, Wang had been working for the Epidemic Prevention Center (EPC) in the Zhoukou district of Henan since the 1980s. Over time, she

⁷¹ John Pomfret, "The High Cost of Selling Blood," *Washington Post*, January 11, 2001, accessed February 1, 2017, https://www.washingtonpost.com/archive/politics/2001/01/11/the-high-cost-of-selling-blood/d0dbe9ab-11d3-4179-908f-0c43d3cf94a9/?utm_term=.b8366a467cc0.

⁷² Shuping Wang, "How I Discovered the HIV Epidemic and What Happened to Me Afterwards," *China Change*, September 27, 2012, accessed February 14, 2017, <https://chinachange.org/2012/10/08/dr-wang-shuping-how-i-discovered-the-hiv-epidemic-and-what-happened-to-me-afterwards/>.

⁷³ Ke Zhang, "Henan ai zi bing wu nian diao cha bao gao [Henan AIDS 5-Year Study Report]," CUHK Universities Service Center for China Studies, January 29, 2005, accessed February 5, 2017, <http://paper.usc.cuhk.edu.hk/Details.aspx?id=4955>.

slowly began to suspect that the plasma collection activities of her station had been contaminated. Initially, it was a problem of hepatitis C. After her private testing returned a 34% positive infection rate among 64 randomly-selected samples, Wang reported these results to her station superiors, focusing specifically on the need for more hygienic blood drawing and centrifugation.⁷⁴ When they resisted on account of the additional cost, Wang sent information on the epidemic directly to the MOH in Beijing. Though it took months for an on-site investigation, the central authorities finally mandated that all blood donors undergo hepatitis C screening. As a reward for her whistleblowing, Wang was reassigned by her disgruntled bosses to the Office of Medical Affairs.⁷⁵

In 1994, news trickled in from counties in Yunnan Province that the HIV prevalence rate there among intravenous drug users ranged from 40% to 85.7%. Alarm bells rang in Wang's head, since HIV and hepatitis C followed the same blood-borne route of transmission. Where there was one, there was bound to be the other.⁷⁶ All seventeen EPC-run plasma collection stations in her Zhoukou district had been contaminated by the hepatitis outbreak, and there were four additional private stations whose infection statuses could not be confirmed due to their underground activity. With permission, but without funding from the local Health Bureau, Wang set up a clinical testing center with personally purchased equipment to act as the area's singular quality control check on the blood supply.⁷⁷

In March 1995, nightmare became reality. The Health Bureau dispatched Wang to Taikang County for Mr. Guo, a blood donor who had been flagged for previously testing HIV-

⁷⁴ Shuping Wang, "How I Discovered the HIV Epidemic and What Happened to Me Afterwards," *China Change*, September 27, 2012, accessed February 14, 2017, <https://chinachange.org/2012/10/08/dr-wang-shuping-how-i-discovered-the-hiv-epidemic-and-what-happened-to-me-afterwards/>.

⁷⁵ *Ibid.*

⁷⁶ *Ibid.*

⁷⁷ *Ibid.*

positive in Yunnan. In the weeks since his arrival in Zhoukou, he had already sold blood in three different county stations. Wang's results confirmed the diagnosis—Mr. Guo had HIV.⁷⁸ She immediately recommended that HIV testing be performed on the blood supply in all Henan collection stations to assess the extent of contamination, but, as before, the Department of Health (DOH) rejected the proposal on grounds of expense. Hoping to convince them otherwise, Wang tested three times each of 409 random samples collected from the plasma stations Mr. Guo had visited. The seropositive rate was 13%.⁷⁹ And here her troubles began in earnest.

Upon her initial report to the head of her Office of Medical Affairs, Wang was praised for doing “a great thing for the people.” The official promised to transmit the information up the chain of command to the provincial DOH, but when she checked back two weeks later, he had become defensive and skeptical of her results. Wang then traveled to Beijing, seeking a weightier verification of the HIV diagnoses from the Institute of Virology. But when they told her that it would cost 700RMB (out of her own pocket) to test a single sample, she was at a loss—until she ran into Dr. Zeng Yi on her way out. Zeng, then president of the Chinese Academy of Preventive Medicine who would go on to publicly acknowledge the HIV epidemic to the Academy of Sciences, ordered confirmatory testing after listening to Wang's story. Of 16 tested samples, 13 returned HIV-positive and 3 equivocal. Zeng informed the central MOH.⁸⁰

Back in Henan, Wang received a call from Director Zhao of the Zhoukou Health Bureau. “You caused an earthquake for our district,” he said angrily. The following day, she was summoned to an internal conference between Zhoukou and Henan DOH authorities, but was

⁷⁸ Shuping Wang, "How I Discovered the HIV Epidemic and What Happened to Me Afterwards," *China Change*, September 27, 2012, accessed February 14, 2017, <https://chinachange.org/2012/10/08/dr-wang-shuping-how-i-discovered-the-hiv-epidemic-and-what-happened-to-me-afterwards/>.

⁷⁹ *Ibid.*

⁸⁰ *Ibid.*

shouted out of the room by the same director who had called her the previous night. When she submitted a written account of her work uncovering the HIV outbreaks in the plasma collection stations, Zhao crossed out the portions documenting her initial report of the contamination to his Health Bureau.⁸¹ By this time, there was already news of secondary casualties—a policeman had contracted hepatitis C from a hospital transfusion of blood purchased from local counties. The provincial DOH leaders wanted to rein in talk of the HIV epidemic because it reflected poorly on their job performance as government officials: under the Chinese Communist Party's (CCP) method of hierarchy promotion, this would severely hinder their career progress.⁸²

Beyond simply questioning how Wang as a single woman had managed to find so much disease in a region that was considered HIV-free, they also turned to darker means. Wang returned to her clinical testing center to find a retired Zhoukou Health Bureau director waiting. He warned her that she would be in trouble if operations weren't shut down. The next day, he came with a bat and smashed her equipment. When Wang tried to stop him, he beat her to the ground. As he was taken away, he cried out, "Certain leaders sent me to beat her!" These words rang in her head as the new health commissioner dismissed her claims, leaving her with no recourse for justice.⁸³ She was alone.

In March 1996, the head of every blood collection station in Henan was arrested per the request of the MOH. The following month, all stations were closed temporarily for "rectification" as authorities discussed how to proceed.⁸⁴ But the fight was not over for Wang. At a July AIDS prevention conference for the province, the governor's opening remarks made clear

⁸¹ Shuping Wang, "How I Discovered the HIV Epidemic and What Happened to Me Afterwards," *China Change*, September 27, 2012, accessed February 14, 2017, <https://chinachange.org/2012/10/08/dr-wang-shuping-how-i-discovered-the-hiv-epidemic-and-what-happened-to-me-afterwards/>.

⁸² *Ibid.*

⁸³ *Ibid.*

⁸⁴ *Ibid.*

that the direct reporting of the HIV epidemic to Beijing was unacceptable. Within a smaller group, Director Zhang Maocai of the Office of Epidemic Prevention in Zhoukou District unknowingly addressed Wang and her colleagues, denouncing “that man” in the clinical testing center who had dared to tell the central government that as many as 60% of blood donors were HIV-positive. “All of the directors here will be thrown out!” he exclaimed angrily.⁸⁵

Wang found her courage in that moment. Standing up, she looked Zhang in the eye and told him she was that man who had tried first to tell the local Health Bureau about the HIV outbreak. Almost immediately, she was ushered from the room. She then found her way to the office of Liu Quanxi, leader of the Henan DOH. Upon hearing her admission that she was the whistleblower, he furiously told her to get out.⁸⁶ The provincial-level officials had been embarrassed by the exposure, and they knew exactly who to blame now.

Director Zhang paid the clinical testing center a surprise visit that November. After a big show of inspection, he proclaimed that the health quality standards were not being met and that, in the best interests of the women working there, he was shutting it down. Despite Wang’s valiant retort that they were not afraid to die, Zhang and the Zhoukou CCP officially dismantled the branch. Wang stopped getting paid, though she continued to work there in an unofficial capacity. It was only when they blocked utilities to the building that she was forced to leave. After several years in Beijing with support from Zeng Yi, Wang eventually found work as a hepatitis researcher in the United States. With nothing but an email address linking her to her

⁸⁵ Shuping Wang, "How I Discovered the HIV Epidemic and What Happened to Me Afterwards," China Change, September 27, 2012, accessed February 14, 2017, <https://chinachange.org/2012/10/08/dr-wang-shuping-how-i-discovered-the-hiv-epidemic-and-what-happened-to-me-afterwards/>.

⁸⁶ Ibid.

former infamy, Wang appears finally to have found the calm, albeit not the credit, that she deserves.⁸⁷

Makeshift Aid in the AIDS Villages

While Wang was opening the door for the central government's involvement, individuals in isolated communities were doggedly combating the Henan HIV epidemic as well. Dr. Gui Xien is one well-known example. An infectious disease physician in Wuhan, Hubei Province, he traveled to the Henan village of Wenlou, Shangcai County, in 1997 as a favor to a student from the area.⁸⁸ Upon testing eleven patients with mysterious illnesses (wine-colored patches and sores), ten positive results painted a clear picture: it was HIV.⁸⁹ A larger sample of 140 suspected cases produced a HIV infection rate of nearly 60%—not dissimilar to what Wang Shuping had reported in neighboring Zhoukou district. Here as before, the provincial government rejected the outcomes of his testing. It would take two years before the DOH acknowledged the outbreak in Wenlou, and then only after Chinese Vice Premier Li Lanqing personally commented in the margins of Gui's letter.⁹⁰ Having grown up as the son of American-trained scholars during the Cultural Revolution, Gui had learned from his time working in the isolated refuge of Tibet that medicine was best practiced in the community rather than in the clinic. Thus, even in the face of

⁸⁷ Shuping Wang, "How I Discovered the HIV Epidemic and What Happened to Me Afterwards," *China Change*, September 27, 2012, accessed February 14, 2017, <https://chinachange.org/2012/10/08/dr-wang-shuping-how-i-discovered-the-hiv-epidemic-and-what-happened-to-me-afterwards/>.

⁸⁸ "China's Whistleblower Doctor, Gui Xien," *People's Daily Online*, November 30, 2009, accessed February 11, 2017, http://www.chinadaily.com.cn/china/2009-11/30/content_9079300.htm.

⁸⁹ John Pomfret, "The High Cost of Selling Blood," *Washington Post*, January 11, 2001, accessed February 1, 2017, https://www.washingtonpost.com/archive/politics/2001/01/11/the-high-cost-of-selling-blood/d0dbe9ab-11d3-4179-908f-0c43d3cf94a9/?utm_term=.b8366a467cc0.

⁹⁰ *Ibid.*

opposition from local authorities, he continued to sneak into the AIDS villages of southern Henan for the next decade of his life, providing care to peasants with no other options.⁹¹

Meanwhile, 530 miles away in Beijing, another doctor was doing the same. Zhang Ke was the head of communicable diseases at You'an Hospital, one of only a few infectious disease-oriented medical centers in the city. Assigned to work in the AIDS department behind the morgue, his daily responsibilities were light—the clinic had only two patient rooms, both of which often remained empty. But on a muggy July morning in 1999, he received a surprise.⁹² On the path from the main hospital building to the clinic, a group of men wearing the characteristic clothing of farmers approached him. One of them, Ren Chunsheng, requested a physical exam. Zhang pointed them towards the hepatitis outpatient center, assuming that was their concern, and was taken aback when the men said they wanted an evaluation for AIDS instead. “Why AIDS?” he thought. Moving some chairs from the clinic to the small garden adjacent, he sat down with the ragtag group to hear their story.⁹³

Ren was from the village of Donghu in Xincai County, south of Zhoukou District. Throughout the early 1990s, they sold their blood plasma to local collection stations along with many others in the community. Mysterious illnesses did not appear until 1997, but when people began to die, those who could afford it made the pilgrimage to the capital, Zhengzhou, for medical testing. Ren and his friends had been among this number—and they had tested positive

⁹¹ John Pomfret, "The High Cost of Selling Blood," *Washington Post*, January 11, 2001, accessed February 1, 2017, https://www.washingtonpost.com/archive/politics/2001/01/11/the-high-cost-of-selling-blood/d0dbe9ab-11d3-4179-908f-0c43d3cf94a9/?utm_term=.b8366a467cc0.

⁹² Ke Zhang, "Henan ai zi bing wu nian diao cha bao gao [Henan AIDS 5-Year Study Report]," CUHK Universities Service Center for China Studies, January 29, 2005, accessed February 5, 2017, <http://paper.usc.cuhk.edu.hk/Details.aspx?id=4955>.

⁹³ *Ibid.*

for HIV. Not knowing where else to go and having heard of You'an through a friend who had been treated, they came to Beijing.⁹⁴

Zhang initially wasn't sure what to believe. After conducting a basic exam, he concluded that none of the men had serious opportunistic infections, and so in exchange for Ren's telephone number, he gave each person a bottle of herbal medicine and bid them farewell. The first week of September, during a particularly slow period in the clinic, Zhang boarded a train to Henan and arrived in Donghu the following evening. By chance, his rickshaw driver was related to Ren. After he rushed home to tell everyone, a line formed for the AIDS doctor the next morning before Zhang himself had even gotten out of bed. His first patient was the younger brother of the village mayor, and throughout the day, he saw everyone from three-year-old children to grandmothers. Without proper equipment, Zhang could only use observable symptoms—swollen lymph nodes, fever, diarrhea—to draw likely diagnoses. In that single 16-hour workday, he saw 300 patients from Donghu and a few neighboring villages. AIDS was a constant.⁹⁵

Upon his return to Beijing, he informed the head of the hospital about what he had seen. The official showed no strong reaction either way, but that night, Zhang started receiving threatening phone calls at home. They warned him never to go to Henan again. A few days later, a directive from the MOH gave the same order. Apparently, taking Zhang's advice that only HIV testing could provide a definitive diagnosis, the scores of peasants he had seen over the weekend went to the local Epidemic Prevention Center seeking an antibody test. Authorities there found the behavior odd. With a little digging, they learned about the AIDS doctor that had come into

⁹⁴ Ke Zhang, "Henan ai zi bing wu nian diao cha bao gao [Henan AIDS 5-Year Study Report]," CUHK Universities Service Center for China Studies, January 29, 2005, accessed February 5, 2017, <http://paper.usc.cuhk.edu.hk/Details.aspx?id=4955>.

⁹⁵ Ibid.

town. The Henan DOH sent a letter to the MOH, and You'an took the Ministry's call very seriously: anyone who went to Henan on HIV business would be punished accordingly.⁹⁶

Nevertheless, Zhang persisted in his work. Twice a month, he would slip away to the villages and hamlets in southern Henan to care for patients, always returning in time for his Monday morning shift. He also met with Dr. Zeng Yi at the Chinese Academy of Sciences, hoping for a sympathetic ear. What he got instead was an ally—Wang Shuping, after her expulsion from Henan's DOH, had taken up a research position with Zeng, and she finally explained the complex situation in the province. Armed with this new knowledge, Zhang redoubled his efforts. Over the course of five years, he documented interactions with 11,057 AIDS patients, of whom 2,343 died. Their outcomes were published in a comprehensive report on the Henan epidemic, a milestone scientific study in China's sluggish response to HIV.

Recalled to Service: Gao Yaojie Finds HIV

While Wang Shuping and her contemporaries worked domestically to attract attention to the HIV outbreak, it was Gao Yaojie who shone an international spotlight on Henan. A native of Shandong Province, Gao trained as an obstetrician/gynecologist in Henan Medical School.⁹⁷ Over forty years, she garnered an esteemed reputation for herself as a specialist in sexually transmitted diseases, utilizing both traditional and modern medicine techniques.⁹⁸ Notably, she chose to work in the countryside on behalf of patients who otherwise would have limited access

⁹⁶ Ke Zhang, "Henan ai zi bing wu nian diao cha bao gao [Henan AIDS 5-Year Study Report]," CUHK Universities Service Center for China Studies, January 29, 2005, accessed February 5, 2017, <http://paper.usc.cuhk.edu.hk/Details.aspx?id=4955>.

⁹⁷ Yaojie Gao, *Gao Jie de ling hun* [The soul of Gao Yaojie] (Hong Kong: Ming Bao, 2010), 42.

⁹⁸ *Ibid.*, 124.

to quality medical care. At the age of 69 years, Gao received a consult that catapulted her into the center of the bloodhead scandal.⁹⁹

On 7 April 1996, a military hospital in Zhengzhou called. A woman had been admitted sixteen days prior with a high fever and dark tumors across her torso. Despite their best efforts, they had been unable to positively diagnose her illness, and now they wanted her opinion. Gao obliged, conducting a full physical exam on Ms. Ba. In addition to the fever and skin lesions, she had ulcers in her throat, peeling skin, and excessive weight loss. Her symptoms vaguely stirred something in Gao's memory—a conference from the 1980s about the new specter of HIV. The next day, she sifted through articles in the hospital's medical library and found what she was looking for: the wine-colored tumors on her body were characteristic of Kaposi's sarcoma. The patient had AIDS.¹⁰⁰

Upon her positive HIV-antibody test, Gao and the other doctors immediately tested Ba's family members at the local Epidemic Prevention Center. Surprisingly, among her husband, children, and sisters, none had HIV. This puzzled Gao, since they did not use condoms—where had the patient contracted the disease?¹⁰¹ Eventually, they discovered that she had sold her plasma at one of the bloodhead collection stations in the rural villages. Her husband was simply lucky that he had never been infected. Two weeks after Gao met Ms. Ba, the patient died at forty-two years of age. Her family buried her amidst a scattering of multicolored paper money to support her in the afterlife; they cooked her favorite dishes as an offering to the ancestors.¹⁰² When Gao and her colleagues submitted their case report to the Henan DOH, an official ordered them to stop making a fuss.

⁹⁹ Yaojie Gao, *Gao Jie de ling hun* [The soul of Gao Yaojie] (Hong Kong: Ming Bao, 2010), 178.

¹⁰⁰ *Ibid.*, 178.

¹⁰¹ *Ibid.*, 178-79.

¹⁰² *Ibid.*, 179.

Fear of scandal undoubtedly motivated this reaction, but his dismissiveness can also be understood as a recapitulation of the denialist mentality that existed broadly throughout Chinese government. As was described previously, long-held ideas that HIV was transmitted through drug addicts, prostitutes, extramarital affairs, homosexuality, and other wicked behaviors not believed to be prevalent in Henan clouded judgments, thwarting timely interventions to address the problem. Gao Yaojie had diagnosed the first formal case of AIDS transmitted by dirty blood donation in the province.¹⁰³ Instead of focusing on the immediate elimination of the bloodhead system, authorities fell back on silencing the uproar. What they didn't count on was resistance.

China Faces the World

Gao turned her full energy towards helping the peasants she had met in Henan's AIDS villages. Defying threats from local officials, she spent her meager retirement pension printing homemade pamphlets containing information about HIV—how it was actually spread, what the signs were, how to best care for the sick. All along the walls in her small apartment, reams of white fliers were stacked halfway to the ceiling. “I have made 1,020,000 copies of this booklet,” she told a reporter in 2006.¹⁰⁴ Week after week, she takes a taxi deep into the affected counties, distributing free educational materials to the desperate residents living there. Sometimes, she brings along cough syrup and pain medicine, treating as many as she can before they run out; during the mid-autumn festival, she gives the children mooncakes. On account of harsh stigma, AIDS patients are regularly kicked out of hospitals and might even be shunned by their relatives. Gao cited as

¹⁰³ Yaojie Gao, *Gao Jie de ling hun* [The soul of Gao Yaojie] (Hong Kong: Ming Bao, 2010), 179-80.

¹⁰⁴ *Zhongyuan ji shi* [The Central Plains], directed by Xiaoming Ai (Apollo Net, 2010), accessed February 1, 2017, <https://www.youtube.com/watch?v=1v7KpRzMYx4>.

her grand mission the dispelling of the sinister myth of transmission. By teaching locals that the virus could not be spread by a simple touch or breath, that it could not be prevented by eating well, that the blood collection stations were the true source of their troubles, she hoped to empower patients in the only way she could.¹⁰⁵

Local government officials obstructed her work at every turn. Later in life, Gao would accuse the Henan DOH of operating under the “Three Nos” doctrine: no acknowledgement, no responsibility, no apology. With evidence increasingly submitted from all across the province, they steadfastly chose to deny and deflect.¹⁰⁶ In a documentary interview, Gao recalls how local authorities would chase her out of the county if they learned she was in town. She would then double back, sometimes seeing 100 patients in a single day. “In the beginning, there was a 500RMB reward for my capture in those villages. Five times the reward of anyone else,” she noted with a tinge of pride.¹⁰⁷

As news of Gao’s work began to be broadcast internationally, China clamped down harder. In 2000, the *New York Times* interviewed her for a piece on the link between AIDS and blood selling.¹⁰⁸ It was the first in a batch of articles on the topic published over the next few years in media outlets and academic journals alike. As a result of the publicity, Gao was universally lauded for her activism. But in May 2001, the government denied her passport for a

¹⁰⁵ Elisabeth Rosenthal, "In Rural China, a Steep Price of Poverty: Dying of AIDS," *New York Times*, October 28, 2000, accessed February 3, 2017, <http://www.nytimes.com/2000/10/28/world/in-rural-china-a-steep-price-of-poverty-dying-of-aids.html>.

¹⁰⁶ Yaojie Gao, *Gao Yaojie hui yi yu sui xiang* [Memories and thoughts of Gao Yaojie] (Hong Kong: Mirror, 2015), 251-52.

¹⁰⁷ *Zhongyuan ji shi* [The Central Plains], directed by Xiaoming Ai (Apollo Net, 2010), accessed February 1, 2017, <https://www.youtube.com/watch?v=1v7KpRzMYx4>.

¹⁰⁸ Elisabeth Rosenthal, "In Rural China, a Steep Price of Poverty: Dying of AIDS," *New York Times*, October 28, 2000, accessed February 3, 2017, <http://www.nytimes.com/2000/10/28/world/in-rural-china-a-steep-price-of-poverty-dying-of-aids.html>.

trip to the United States to collect a Global Health Council award.¹⁰⁹ Even as China's official AIDS strategy evolved over the first decade of the new millennium, they continued to regard individual criticism with displeasure. When U.S. Senators Hillary Clinton and Kay Hutchinson selected Gao as an honoree of the Vital Voices Global Partnership in 2007, policemen began to man the entrance to her home in Zhengzhou, essentially placing her under house arrest. Under heavy pressure, Gao rejected the invitation to visit Washington, D.C.; simultaneously, the provincial newspaper published a photo of three DOH officials wishing her a happy Lunar New Year to push the narrative that her rights were being respected.¹¹⁰ After receiving a visiting fellowship from Columbia University, Gao permanently left China in 2009. Half a world away, she continues to advocate for the patients she dedicated a lifetime to helping.¹¹¹

The scrutiny Gao endured was not unique, for Gui Xien experienced it in his own way as he kept up his work in southern Henan. Once, in June 2001, the police in Wenlou village arrived to arrest him while he was distributing AIDS drugs. He had to hide in local houses and flee on a motorcycle in the middle of the night to maintain his freedom.¹¹² But curiously, by the end of the 2000s, things had shifted dramatically. Gui still secretly slipped into Shangcai County every weekend, but now his furtiveness was not due to fear of capture—it was to avoid a dinner invitation from local officials. Mirroring the central government's eventual change in tune from denial of the HIV epidemic to (the semblance of) aggressive action, leaders in Henan tripped over themselves making flashy displays of graciousness to the “important guest” in town.

¹⁰⁹ John Gittings, "The AIDS Scandal China Could Not Hush Up," *Guardian*, June 11, 2001, accessed February 1, 2017, <https://www.theguardian.com/world/2001/jun/11/china.internationaleducationnews>.

¹¹⁰ Jim Yardley, "China Covers Up Detention of AIDS Doctor," *New York Times*, February 16, 2007, accessed February 2, 2017, <http://www.nytimes.com/2007/02/16/world/asia/16china.html>.

¹¹¹ Juliana Liu, "Exiled China AIDS Activist Mourns Her Former Life," *BBC*, October 21, 2010, accessed February 8, 2017, <http://www.bbc.com/news/world-11446636>.

¹¹² "China's Whistleblower Doctor, Gui Xien," *People's Daily Online*, November 30, 2009, accessed February 11, 2017, http://www.chinadaily.com.cn/china/2009-11/30/content_9079300.htm.

Remembering well a different time, Gui felt uncomfortable with the attention, preferring instead to chat with villagers, discuss medical records, and follow up on former patients.¹¹³

This was a side to the state's response that Wang Shuping and Zhang Ke never truly experienced, having been targeted earlier by provincial-level authorities. In many respects, Henan cadres were far crueler than their superiors in Beijing ever were, because they had far more to lose. The outbreak had happened under their watch, and as career government officials, it would cost them both rank and income. According to one insider's account widely disseminated within activist communities, the Chinese Communist Party boss behind it all was Liu Quanxi, director of the Henan DOH throughout the mid-1990s. He was the man who had flung open the doors to the blood products economy, intertwining the business side of the plasma collection stations with government operations. Moreover, exercising the power of his office, Liu had instructed his family to open up private blood stations. Shielded by his influence, these stations garnered huge profits through unregulated practices; they beat donors and supposedly even extracted blood without consent.¹¹⁴ Having built an empire from farmers' blood, Liu fought viciously to save himself when Beijing began to investigate. His reasoning had been that when AIDS finally began to appear among his donors, it would be five years down the road and he would be nearing retirement anyway. So, in the meantime, he stifled all the dissent that came his way, screaming that Wang Shuping get out of his sight when she reported her findings and enacting revenge against apparent enemies.¹¹⁵ The half-decade delay between Wang's discovery and Beijing's formal admission of HIV reflects that he was mostly successful in this coverup.

¹¹³ "China's Whistleblower Doctor, Gui Xien," *People's Daily Online*, November 30, 2009, accessed February 11, 2017, http://www.chinadaily.com.cn/china/2009-11/30/content_9079300.htm.

¹¹⁴ Marilyn Levine, "H-ASIA: Revealing the "Blood Wound" of Henan Blood Donor," *Humanities and Social Sciences Online*, January 13, 2001, accessed February 13, 2017, [http://hnet.msu.edu/cgi-bin/logbrowse.pl?trx=vx&list=hasia&month=0101&week=b&msg=IVGte015yUC9QWYa3eoaKQ&user=&pw=.](http://hnet.msu.edu/cgi-bin/logbrowse.pl?trx=vx&list=hasia&month=0101&week=b&msg=IVGte015yUC9QWYa3eoaKQ&user=&pw=)

¹¹⁵ *Ibid.*

The central government had failed to curb the rogue activities in its heartland, at terrible cost to its citizens. It cost Liu too, ironically, years later, when he entered the Henan Provincial People's Hospital for a bout of hyperglycemia-induced weakness. The doctors there flattered him with an offer of a free blood protein transfusion. Liu immediately turned pale and shouted, "Don't transfuse me!"¹¹⁶

In November 2000, just in time for World AIDS Day, the Chinese newspaper *Southern Weekly* published an issue solely covering HIV in Henan. Amidst informational pieces about recognizing AIDS symptoms and discussions with Yale University doctors, framed by photos of suffering siblings and squalid living conditions, journalist Li Yuxiao systematically laid out a blueprint of the epidemic. Describing the bloodheads and their manipulation of rural residents, he recounted a poignant scene where one bloodhead was finally arrested in Chenlou village: upon seeing the man in handcuffs, a plasma donor exclaimed, "Kill him!"¹¹⁷ Though Beijing had prevented press inside Henan from highlighting the situation, their censors ultimately could not keep pace on the national stage. The word was out for good.

¹¹⁶ Marilyn Levine, "H-ASIA: Revealing the "Blood Wound" of Henan Blood Donor," Humanities and Social Sciences Online, January 13, 2001, accessed February 13, 2017, <http://hnet.msu.edu/cgi-bin/logbrowse.pl?trx=vx&list=hasia&month=0101&week=b&msg=IVGte015yUC9QWYa3eoaKO&user=&pw=>.

¹¹⁷ Yuxiao Li, "'Guai bing" [Strange illness]," *Nan fang zhou mo* [Southern Weekly], November 30, 2000, microfilm.

Qian Zhen, "Ai zi bing dao di you duo ke pa? [How scary is AIDS actually?]," *Nan fang zhou mo* [Southern Weekly], November 30, 2000, microfilm.

Qian Zhen, "Zheng shi ai zi bing [Facing AIDS]," *Nan fang zhou mo* [Southern Weekly], November 30, 2000, microfilm.

III. Aftermath

At a formal conference in 2000, Dr. Zeng Yi estimated that there were 600,000 HIV patients in China, the majority of whom were infected through blood donation. If the existing trajectory went unchanged, AIDS had the potential to spike to six million cases by 2005, helped along by the massive population of heterosexual couples and the variable blood testing capabilities in rural regions.¹¹⁸ At last startled into action, Beijing roused itself to fight the disease.

Reforming the Blood Supply

Following Wang Shuping's whistleblowing in 1995, the Ministry of Health (MOH) banned all unlicensed blood collection stations to crack down on bloodhead operations. Additionally, they began to enforce the longstanding policy of double HIV testing for donors.¹¹⁹ To wean off area blood supplies from paid sellers, there was a big drive to recruit volunteers. Whereas the onus of maintaining enough blood previously fell on the shoulders of employers, the system was reorganized around truly professional blood centers. By promoting the creation of licensed stations in strategic locations around the country, the proportion of volunteers among donors rose. In Shenzhen, for example, all transfusions were completed using volunteer donations in 1999, the year after the new policy went into effect. This was a marked improvement from the 0.18% volunteer transfusion units used in 1993.¹²⁰ On the market side, stricter government regulation from the newly-expanded Division of Blood Product Management cut the number of

¹¹⁸ Marilyn V. Beach, "'Blood Heads' and AIDS Haunt China's Countryside," *Lancet* 357 (2001): 49.

¹¹⁹ Hua Shan, Jing-Xing Wang, Fu-Rong Ren, Yuan-Zhi Zhang, Hai-Yan Zhao, Guo-Jing Gao, Yang Ji, and Paul M. Ness, "Blood Banking in China," *Lancet* 360, no. 9347 (2002): 1772.

¹²⁰ *Ibid.*, 1771.

accredited blood products companies from upwards of 100 to just 30. Attacking the issue on both ends, the MOH hoped to infuse the plasma derivatives industry with a greater degree of legitimacy.¹²¹

However, they were only partially successful. As recently as 2014, so-called “vampire gangs” in Gansu Province, were coercing teenagers to give blood.¹²² Running the ring through the local blood center, the deputy director earned 10,700RMB in plasma sales over six months from nearly 50 forced donations, keeping their victims silent under threat of force.¹²³

Simultaneously, the country continued to lag behind its western counterparts in ability to drum up volunteer donors. Despite the astronomical increase from 50,000 donors in 1998 to nearly three million in 2013, China still only boasted a ratio of 87 volunteers per 100,000 population. The World Health Organization recommended a minimum ratio of 100 per 100,000, and developed countries regularly exceeded 454 per 100,000 annually.¹²⁴ Remote northwestern towns began to creep back towards fake volunteerism—the city of Baoji in Shaanxi Province implemented a rule mandating blood donation before starting university, entering a government profession, or obtaining a marriage license.¹²⁵ The bloodhead legacy lives on.

¹²¹ Hua Shan, Jing-Xing Wang, Fu-Rong Ren, Yuan-Zhi Zhang, Hai-Yan Zhao, Guo-Jing Gao, Yang Ji, and Paul M. Ness, "Blood Banking in China," *Lancet* 360, no. 9347 (2002): 1770.

¹²² Richard Tomlinson, "Chinese Clamp Down on Blood Products," *BMJ* 314 (1997): 93.

¹²³ Luan, ed., "China Focus: More Victims Found in Forced Blood Donations," *Xinhua Net*, August 18, 2014, accessed February 14, 2017, http://news.xinhuanet.com/english/china/2014-08/18/c_133566165.htm.

¹²⁴ An, ed., "China Sees Red in Blood Donation," *Xinhua Net*, June 13, 2014, accessed February 14, 2017, http://news.xinhuanet.com/english/china/2014-06/13/c_133405838.htm.

Yamei Wang, ed., "Blood Donation Laws Should Be Eased: Proposals," *Xinhua Net*, March 22, 2012, accessed February 14, 2017, http://www.chinadaily.com.cn/china/2012-03/22/content_14890193.htm.

¹²⁵ Fu Peng, ed., "Blood Donations in China," *Xinhua Net*, September 25, 2014, accessed February 14, 2017, http://news.xinhuanet.com/english/china/2014-09/25/c_133672600.htm.

The Contemporary AIDS Landscape

In 2001, with the MOH acclimating to open admission of HIV among former plasma donors, the Division of Treatment and Care under the National Center for AIDS/STD Control and Prevention (NCAIDS) was created. It was tasked with overseeing the rollout of standardized treatment guidelines around the country, as part of the belated effort to control the epidemic. NCAIDS launched China's National Free ART Program in 2003. Originally focused on plasma donors from the Central Plains (Henan and its surrounding provinces), the program guaranteed free treatment in a course of three drugs. As the domestic AIDS budget grew in subsequent years, a robust service line from viral load testing to medicine procurement to physician training emerged. By the start of 2007, free ART was available in all 31 provinces, covering two-thirds of the nation's known AIDS patients.¹²⁶

UNAIDS declared that China had 501,000 reported cases of HIV/AIDS in 2014, an improvement from 2010 estimates.¹²⁷ While HIV has historically been transmitted via heterosexual contact in the country, infection between men who have sex with men has steadily increased since the mid-2000s. At the same time, prevalence rates among intravenous drug users have declined. The spread of HIV through blood products or plasma donation, which accounted for one-third of all new cases prior to 2005, fell below 1% in 2012.¹²⁸ Having met success on other fronts, ongoing efforts now center on sex education and eliminating mother-to-child

¹²⁶ Fujie Zhang, Jessica E. Haberer, Yu Wang, Yan Zhao, Ye Ma, Decai Zhao, Lan Yu, and Eric P. Goosby, "The Chinese free antiretroviral treatment program: challenges and responses," *AIDS* 21, no. S8 (2007).

¹²⁷ National Health and Family Planning Commission of the People's Republic of China, *2015 China AIDS Response Progress Report* (Geneva: UNAIDS, 2015), 3.

Fujie Zhang, Zhihui Dou, Ye Ma, Yan Zhao, Zhongfu Liu, Marc Bulterys, and Ray Y. Chen, "Five Year Outcomes of the China National Free Antiretroviral Treatment Program," *Annals of Internal Medicine* 151, no. 4 (2009).

¹²⁸ National Health and Family Planning Commission of the People's Republic of China, *2015 China AIDS Response Progress Report* (Geneva: UNAIDS, 2015), 9-10.

transmission.¹²⁹ In the grand context of its 1.3 billion-person population, China's HIV/AIDS epidemic is relatively minor, especially when compared to other countries or other diseases. But what renders it significant is its mode of dissemination: through entirely preventable circumstances, clusters of disease isolated to high-risk groups exploded into a national threat.

The Human Cost

What about the farmers themselves? What happened to them once the central government took control of the situation? On one level, they certainly were cared for. If they wanted it, they had a lifetime's supply of AIDS medication at their fingertips—but this was the very challenge. In those first few years of the ART program, the pure drugs without supplemental services like disease counseling and follow-up served only to dissuade rural villagers. The nauseating, painful side effects of the ART ensured so many patients halted treatment that the three-year survival rate of 50% among those collecting medication proved no better than the control.¹³⁰

Overlooking the context of AIDS treatment was the critical failure. Informed that selling blood was killing them but dependent on stagnant safety net benefits, undernourished peasants sometimes could not physically endure the harsh antivirals. Given a decision between dying slowly from AIDS or dying quickly from AIDS medicine, individuals chose the long death. Their habit of ART nonadherence proved difficult to break later when the government began providing adequate social support. Sadly, in that early period, even individuals who were constitutionally strong enough to tolerate ART still faced the obstacle of money. Out-of-pocket

¹²⁹ National Health and Family Planning Commission of the People's Republic of China, *2015 China AIDS Response Progress Report* (Geneva: UNAIDS, 2015), 13-14.

¹³⁰ Shao Jing, "Fluid Labor and Blood Money: The Economy of HIV/AIDS in Rural Central China," *Cultural Anthropology* 21, no. 4 (2006): 538.

expenditure on medication devastated already beleaguered families, pushing them to the brink. To win a cash settlement, one 55-year-old grandmother purposely stepped out in front of a moving car. Her plan had been to collect legal compensation for her injury; having misjudged the collision, she died on scene.¹³¹

Elsewhere, when AIDS killed off adults in their prime, it left behind entire villages of orphans. The official number of Chinese orphans jumped from 70,000 in 2008 to over 500,000 in 2011.¹³² While this is attributed partially to changes in surveillance methods following the 2008 Sichuan earthquake, that this trend appears exactly at the time when parents infected with HIV in the mid-1990s would succumb to their disease cannot be ignored. In 2003, Beijing allocated 17.4 million yuan to build 20 orphanages in Henan Province, catering specifically to children of AIDS victims. Supplied with electricity, hot water, and basic medical care, these orphanages often presented a better life than would otherwise have been possible. Notwithstanding, the existence of this unique sub-population poses a serious dilemma to state policymakers. Under the shadow of the bloodhead scars, unresolved questions linger.

IV. Conclusion

In less than a decade, HIV transformed from a distant Western ailment to an all-too-familiar presence in central China. Advancing technology taught the public to want blood plasma products, even when there was no clinical indication for their use. Coupled with severe blood

¹³¹ Shao Jing, "Fluid Labor and Blood Money: The Economy of HIV/AIDS in Rural Central China," *Cultural Anthropology* 21, no. 4 (2006): 543.

¹³² China Statistical Yearbook, "Orphans and Adoptive Households," 2015, accessed December 19, 2016, <http://www.stats.gov.cn/tjsj/ndsj/2015/indexch.htm>.

shortages, profiteers pounced. Mixed in among state-run plasma collection stations, those operated by bloodheads were both the source and vehicle of HIV transmission. By the time Beijing fully realized what was occurring in Henan, the scope of the outbreak was beyond their control. Provincial authorities conspired to keep central officials in the dark—and they succeeded—but it was also a mixture of hubris and authoritarianism that forged their fatal flaw. While it is true that HIV ultimately did not follow the trend that researchers had initially feared (in hundreds of thousands rather than in millions), this knowledge is more bitter than sweet. Health leaders systematically chose to protect their own careers over helping the disadvantaged populations they represented. They did too little, too late. The blood of China's AIDS victims is on their hands.

Dominating an entire city block in Harlem, Gao Yaojie's home in exile bears little resemblance to her Zhengzhou residence. One in a complex maze of housing units, her new apartment is dimly-lit and sparse, hardly suitable for a woman of her age living alone. And yet, every week a group of Chinese students from Columbia University arrives at her door. They bring fresh groceries and accompany her to physical therapy appointments; they taught her how to use email and word processors. Though she never says so, it must remind her keenly of the friends she left behind. In 2014, Gao considered writing her memoir the chief duty remaining to her.¹³³ When the book was finally completed, the result was breathtaking. Interspersed with her own memories, the voices and faces of her patients danced across the pages, reminders of the lives cut short amidst the golden plains of Henan. They are immortalized through her words.

In March 2017, I reached out to Wang Shuping through the contact information she had provided in her online report. Hours later, I received a reply—and an invitation to call her

¹³³ Yelin Hong, "Easing Dr. Gao's Exile," Brooklyn Ink, January 22, 2014, accessed February 10, 2017, <http://thebrooklynink.com/2014/01/22/53559-easing-dr-goas-exile/>.

personal line. “I want to help you because you are still young and I think it’s important that you are studying this,” she told me in a pleasantly animated voice.¹³⁴ Though she was now an ocean and a discipline removed, she had remained informed about the AIDS situation in China. She cited recent papers from Zhejiang and Shandong Provinces that showed blood transmission was still happening; she asserted that the coverup was not over, as many Chinese people had no idea about the virus.

She also recounted her time working in Beijing after being shunned by the Henan Department of Health. Gao Yaojie had regularly phoned into her office then with questions derived from seeing her HIV patients. The two women had struck up a friendship. When it became clear that Wang’s employer Zeng Yi could not publicize information about the outbreak without jeopardizing Wang in the process, they hatched an alternate plan. A retiree with nothing to lose, Gao tipped off local journalists. The article that was subsequently published was the first to break the news of Henan’s HIV crisis. Gao received the brunt of the government’s displeasure, but she received media attention, public respect, and international aid as well. Wang, meanwhile, slipped anonymously away to the United States. Despite their equal hand in the reveal, Wang has never resented the unequal distribution of credit for the task. After all these years, she and Gao keep in touch.

I asked her (somewhat incredulously) how she manages to find peace, having lived through what she has. “When you do the correct thing, you are never scared,” Wang said with a small laugh. “Anywhere, anytime, you should tell the truth.”

(11,283 words)

¹³⁴ Wang Shuping, phone interview by author, March 20, 2017.

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BIBLIOGRAPHIC ESSAY

For a paper that is ultimately rather critical of the way that the Chinese government handled a crisis, it is perhaps ironic that the idea for my topic originated while I was interning in Beijing at the National Center for AIDS/STD Control and Prevention (NCAIDS). Having come across several mentions in the agency's datasets of an unusually high HIV prevalence rate among "former plasma donors" in Henan Province, I became fascinated by the existence of an underground blood economy that fed into legitimate medical supplies. Upon my return to Yale in the fall, I consulted with Melissa Grafe at the Medical Historical Library, who introduced me to the broad variety of material available regarding commercialized blood. Douglas Starr's *Blood: An Epic History of Medicine and Commerce* was especially useful for building up my background knowledge of the subject.

My original intention was to focus on the global blood products economy, with the Chinese HIV infection scandal serving as an illustrative example of how desperation and greed could make it go awry. However, as I read more newspaper and academic journal reports about the HIV outbreak itself, I discovered that the scope of the story in China was far greater than I had imagined. Ultimately, it was Shao Jing's gripping ethnography (the result of three years' field research) of the unsuspecting farmers caught up in the dirty blood collection ring that caused a change of heart. I reorganized my essay to elucidate the full story of HIV in Henan Province.

Because the Chinese government had actively suppressed information on this subject for years and because most of the people directly involved were rural peasants, I was unsurprised that Yale lacked relevant archival material. Michael Meng and Tang Li in the East Asia Library

successfully acquired for me a microfilm version of the Chinese newspaper *Southern Weekly*, which had published a well-known issue in 2000 discussing the Henan HIV situation. This was an important resource, as it was one of only a few publications that featured a local perspective on the matter. But, in a way that I did not anticipate, the bulk of my argument was constructed from the stories of four physicians who witnessed the epidemic firsthand. Their heroism helped lend my paper a vividly human element.

I found two of these reports through Wan Yanhai, an exiled AIDS activist and 2003 Yale World Fellow, whom my fellowship adviser Kaveh Khoshnood (YSPH) suggested I contact. After convincing Wan that I was indeed just a student looking for information (he still dodged my questions about his human rights advocacy, preferring to “focus on the facts” of HIV), he sent me a dozen documents produced by his nongovernmental organization Beijing Aizhixing Institute, as well as links to three essays posted on activism websites. In the end, I did not refer to all of these materials, but the online entries by Dr. Wang Shuping, Dr. Zhang Ke, and an anonymous government official revealed to me what no other source could: exactly how the HIV-contaminated blood was first discovered. Supplementing this with Western profiles of Dr. Gui Xien, I compiled a proper timeline of the infection events.

The other crucial personal experiences I incorporated were derived from the memoirs of Dr. Gao Yaojie, undoubtedly the most famous face of China’s HIV blood scandal. An outspoken and heavily lauded advocate for the AIDS patients she treated in Henan, she described her interaction with the individual who would be the first official diagnosis of HIV contracted from blood donation. Based on all of the above testimonies, it was also possible for me to identify the shortcomings of both the provincial and central government response to the problem.

My biggest challenge when sifting through these disparate accounts was maintaining a degree of skepticism. With such emotionally charged content, it was easy to be swept up in the narrative, but I did my best throughout to seek balanced perspectives. The contrast between the Western media and *Southern Weekly* coverage provided one source of diversity, but because China has never publicly released a statement regarding the nature of the HIV outbreak, I could only infer the state's position from what it allowed federally-funded AIDS researchers to publish. The journal articles by Fujie Zhang and his colleagues were useful in this respect, for their introductory material referenced the viral transmission among former plasma donors without ever going into detail. It is worth acknowledging that I do still have access to the NCAIDS data on China's current antiretroviral therapy recipients. However, because I signed a confidentiality agreement at the start of my internship that I would not use the private patient data for purposes other than my assigned summer project, I did not consult the file as evidence here.

With the core of my essay taking shape, I then turned to secondary sources to contextualize the situation. Fresh off a Fall 2016 sociology seminar (taught by Deborah Davis) on poverty in China, I borrowed themes we had learned about the rigid social system to explain the reasoning behind rural farmers' eagerness to join the blood collection scheme. Cultural practices pertaining to medicine were drawn from a course I took on traditional Chinese science with Bill Summers. What helped most to generalize my findings and render them broadly relevant were works on blood and disease in various countries around the world; these were recommended by my adviser Joanna Radin, and without them in my first draft, my analyses fell somewhat flat.

The experience of writing this paper has been singularly different from the other research that I have been involved in. Being unable to rely on Yale-owned primary sources (and

navigating around government censorship) was frankly very stressful, since I did not have a concrete starting point. Additionally, the burden was on me to investigate for validity the materials that I had found—I spent a week cross-checking details from the reports of Wang Shuping, Zhang Ke, and the anonymous author, corroborating them with mainstream news sources. My eventual email exchange with Gao Yaojie and extended phone conversation with Wang Shuping went a long way in building this confidence. There are certainly angles to the Chinese HIV outbreak that I could not touch upon in the space allotted. Its impact on hemophiliacs and others dependent on blood products, for example, was one subject that Wan Yanhai's documents explored but that I did not. Its parallels to China's mishandling of the SARS epidemic in 2003 was another. Nevertheless, I believe that my biosocial argument is strong. Piece by piece, the final picture came together.