

# Treating tuberculosis in North Korea

## The experience of Eugene Bell Foundation<sup>1</sup>

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### ABSTRACT

Tuberculosis, often referred to as “the disease of the poor”, spread in North Korea as a result of the severe decline in the country’s socio-economic conditions in the 1990s. This article examines tuberculosis treatment in North Korea through the prism of the humanitarian work of the Eugene Bell Foundation (EBF), which spearheaded an international effort to help the population of the Democratic People’s Republic (DPRK) cope with the humanitarian crisis. In recent years, the EBF has devoted its treatment program to drug-resistant tuberculosis, which is the deadliest strain of the disease. The Foundation’s experience in this field offers a unique perspective on North Korea’s relations with non-governmental organizations. The EBF’s work in North Korea and its relations with officials and tuberculosis patients highlight the difficulties and challenges in managing humanitarian projects in the country. This case study shows, however, how people-to-people exchanges are an effective way to engage North Korea toward positive outcomes in dealing with specific problems in the humanitarian field. In particular, the EBF acts as a connecting node in a complex institutional and human network involving the two Koreas, the United States, and other countries

**Keywords:** North Korea, Eugene Bell Foundation, Tuberculosis, Multi-drug resistant tuberculosis, Treatment, Humanitarian, NGO

### RESUMEN

La tuberculosis, descrita a menudo como “la enfermedad de los pobres”, se extendió en Corea del Norte como consecuencia de la grave deterioro de las condiciones socio-económicas del país en la década de 1990. Este artículo examina el tratamiento de la tuberculosis en Corea del Norte a través del prisma que ofrece de la labor humanitaria de la Fundación Eugene Bell (EBF), que lideró un esfuerzo internacional para ayudar a la

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<sup>1</sup> The research and writing of this paper occurred with generous support by the Academy of Korean Studies (MEST) (AKS-2010-DZZ-3140).

población de la República Democrática Popular de Corea (RDPC) ante la crisis humanitaria. En los últimos años, la EBF ha centrado su programa de tratamiento en la tuberculosis resistente a los medicamentos, que es la cepa más mortífera de la enfermedad. La experiencia de la Fundación en este campo ofrece una perspectiva única sobre las relaciones de Corea del Norte con las organizaciones no gubernamentales. El trabajo de la EBF en Corea del Norte y sus relaciones con los funcionarios y pacientes con tuberculosis destaca las dificultades y desafíos que suponen la gestión de proyectos humanitarios en el país. El presente estudio muestra, sin embargo, cómo las relaciones interpersonales son un camino eficaz de involucrar a Corea del Norte en la obtención de resultados positivos en el tratamiento de problemas específicos en el ámbito humanitario. En particular, la EBF actúa como un nodo de conexión en una compleja red institucional y humana que involucra las dos Coreas, Estados Unidos y otros países.

**Palabras clave:** Corea del Norte, Eugene Bell Foundation, tuberculosis, tuberculosis multiresistente fármacosensible, tratamiento, labor humanitaria, ONG

### RESUM

La tuberculosi, descrita sovint com "la malaltia dels pobres", es va estendre a Corea del Nord com a conseqüència del greu deteriorament de les condicions socioeconòmiques del país en la dècada de 1990. Aquest article examina el tractament de la tuberculosi en Corea del Nord a través del prisma que ofereix de la tasca humanitària de la Fundació Eugene Bell (EBF), que va liderar un esforç internacional per ajudar a la població de la República Democràtica Popular de Corea (RDPC) davant la crisi humanitària. En els últims anys, la EBF ha centrat el seu programa de tractament en la tuberculosi resistent als medicaments, que és el cep més mortífera de la malaltia. L'experiència de la Fundació en aquest camp ofereix una perspectiva única sobre les relacions de Corea del Nord amb les organitzacions no governamentals. El treball de la EBF a Corea del Nord i les seves relacions amb els funcionaris i pacients amb tuberculosi destaca les dificultats i desafiaments que suposen la gestió de projectes humanitaris al país. El present estudi mostra, però, com les relacions interpersonals són un camí eficaç d'involucrar a Corea del Nord en l'obtenció de resultats positius en el tractament de problemes específics de l'àmbit humanitari. En particular, la EBF actua com un node de connexió en una complexa xarxa institucional i humana que involucra les dues Corees, els Estats Units i altres països.

**Paraules clau:** Corea del Nord, Eugene Bell Foundation, tuberculosi, tuberculosi multiresistent fármacosensible, tractament, labor humanitària, ONG

Western scholarship and media coverage on the Democratic People's Republic of Korea (the DPRK or North Korea) largely focuses on security issues and human rights, and pays relatively little attention to important humanitarian issues like treating disease. This paper will discuss the experience of the Eugene Bell Foundation (hereafter EBF or "the Foundation") in its aid work in the DPRK. A common misperception about North Korea is that it is a uniform society. This mistaken belief arises partly as a result of opaque relations between the DPRK and other countries or foreign institutions and individuals. We can get a closer look at North Korea's interactions with the outside world at the micro-level, however, by focusing on a specific project of the Eugene Bell Foundation's humanitarian work in North Korea—the treatment of tuberculosis. This case study offers a glimpse into institutional and person-to-person interactions between North Koreans, non-governmental organizations, and individuals. The article also addresses the theme of engaging with North Korea beyond state-to-state relations.

## Tuberculosis and North Korea

Tuberculosis (TB) is caused by strains of mycobacteria that usually attack the lungs but can also affect other parts of the body. TB is spread by air, and is the second deadliest disease caused by a single infectious agent after HIV/AIDS virus. A staggering one-third of the world's population has latent TB, meaning people are infected with the bacteria but are not ill or contagious. Once the TB bacterium is inhaled into the lungs, it can stay dormant for a long time, and about 10 percent of infected persons may go on to develop active TB. Symptoms of active TB are coughing with sputum and sometimes blood, chest pains, weakness, weight loss, fever, and night sweats. Even people with active TB may exhibit mild symptoms for months, which may cause delays in treatment and help spread the bacteria to others (through close personal contact, an individual with TB can infect between 10 and 15 people within a year). Moreover, without proper treatment, up to two-thirds of people with active TB will die.

According to the World Health Organization (WHO), in 2013, 13 million people fell ill with TB worldwide, 1.5 million people died from the disease, while 480,000 people developed multidrug-resistant TB (MDR-TB). MDR-TB is a strain that fails to respond to conventional, first-line treatment. MDR-TB patients need second-line medicine, but only a fraction of them are properly diagnosed and treated. Extensively drug-resistant TB (XDR-TB) is a type of multidrug resistant TB that fails to respond to even the most effective second-line drugs. XDR-TB accounted for 9 percent of MDR-TB cases in 2013. Tuberculosis is closely linked to socio-

economic conditions, mainly malnutrition and overcrowding, hence it is spread mostly in poorer countries, and 95 percent of TB deaths occur in the developing world. Another risk factor, particularly in Sub-Saharan Africa, is HIV; people infected with HIV, and thus with weakened immune systems, are 25 to 31 times more likely to fall ill with TB<sup>2</sup>.

The collapse of the Soviet Union and the international socialist system in the early 1990s led to a free fall of the North Korean economy (per capita income dropped by half between 1990 and 2000). The combination of economic melt-down, systemic problems and natural disasters—drought and flooding—led to drastic reductions in food supplies. Various estimates point to between a two- and three-fold drop in grain output between 1990 (production in the range of 5–9 million tons) and 1996 (2.5–3.3 million tons), leading to severe food shortages and starvation. Economic and health-related statistics about North Korea are always questionable, given the limited access to reliable information and corroborating sources, but the findings of scholarly studies and the WHO provide some clues. The famine in North Korea, referred to in North Korea as the “arduous march” (*konanŭi haenggun*), killed between 600,000 and 1 million people by 1999<sup>3</sup>. The disintegration of public services such as the distribution system, which provided the population access to staples, exacerbated the health situation in the DPRK. The country’s infant mortality rate increased from 13.1 deaths per 1000 live births in 1993 to 19.3 per 1000 by 2006, while the under-five mortality rate decreased from 48.2 deaths per 1000 live births in 1999 to 38.7 by 2006. According to the WHO, in 2009, child mortality in North Korea was lower than in other countries in Southeast Asia, but child malnutrition and maternal mortality was a persistent problem<sup>4</sup>.

Tuberculosis is a severe health problem in North Korea. Socio-economic chaos precipitated a sharp rise in TB cases. WHO data for TB in North Korea is sporadic, but gives an idea about the expansion of the disease in the country. In 2012, North Korea had 409 new TB cases per 100,000 population—one of the highest rates in the world. By comparison, Africa had 280 new cases per 100,000 population in 2013, while the largest number of new TB cases was recorded in Southeast Asia and the Western Pacific regions, accounting for 56 percent of total cases in the world<sup>5</sup>. MDR-TB is widespread in Russia—accounting for 20 percent of TB cases, compared to 8 percent in China and 4 percent in India. North Korea’s TB control system focuses on treating drug-susceptible TB rather than MDR-TB,

<sup>2</sup> World Health Organization (WHO)(2015)

<sup>3</sup> Haggard and Noland (2007): pp. 36, 76

<sup>4</sup> WHO Regional Office for South-East Asia (2009)

<sup>5</sup> World Health Organization (WHO)(2015)

a strategy first promoted by the WHO in the 1990s. WHO estimates that there are approximately 3,500 MDR-TB cases per year in North Korea, but the cases of MDR-TB in the DPRK are likely underestimated<sup>6</sup>.

The Korean peninsula has a history of tuberculosis epidemics. In 1965, almost 1 in 10 South Koreans suffered from active, infectious TB (960 cases per 100,000 population), one of the highest rates in the world at the time. By 1995, this had dropped to 219 cases per 100,000 population due to improved socio-economic conditions and an effective health care system<sup>7</sup>. Though South Korea continued to reduce TB cases, the disease remained at alarming levels, especially compared to other developed countries. In a 2007 OECD survey of 30 member countries, South Korea reported the highest incidence of TB—100 cases per 100,000 population, while the second-ranked Estonia had 25 infected citizens per 100,000 population<sup>8</sup>.

The DPRK is often depicted as an isolated country, but this was not the case for most of its history. In the Cold War era, North Korea was part of a communist alliance system which helped the country, particularly during times of crisis. The socialist countries provided medical aid to North Korea during the Korean War and the post-war reconstruction period in the 1950s. Socialist allies accepted thousands of North Korean orphans, providing care and education for them for a period of 7–8 years. The fraternal countries sent medicine, medical equipment and personnel to manage hospitals in North Korea. Hungary, for instance, dispatched three medical teams for a thousand-bed hospital complex in 1951–1952. The hospital facilities sprawled across four villages, and included underground units. The Hungarian medical team specialized in treating tuberculosis patients, a considerable help given that TB was rampant in North Korea and there were only five native tuberculosis specialists at the end of 1953<sup>9</sup>. The socialist countries provided medical aid, including sending doctors and nurses, to the DPRK until the end of the 1950s. In the latter part of the decade they continued to supply medicine and medical equipment through trade exchanges with North Korea. Recently, this author observed X-ray equipment with Polish and Czechoslovak origins (dating from the 1960s) in one of the TB centers in North Korea. It is re-

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<sup>6</sup> Seung (2013); Seung and Linton (2013)

<sup>7</sup> Seung; Bai; Kim; Lew; Park; Kim (2003)

<sup>8</sup> Seung, K. J. (2013)

<sup>9</sup> Archive of the Bulgarian Foreign Ministry (AMVRB), opis (inventory) 4, papka (folder) 29, 267, Biannual report from the Bulgarian embassy in China in 1952, Beijing, August 20, 1952, 141, 166; Hungarian State Archive (MOL), XIX-J-1-j-Korea-11/f-00828/1953 8.d., Report, Legation of Hungary in North Korea to the Hungarian Foreign Ministry, Minister Károly Pásztor, March 4, 1953.

markable how the local medical personnel have managed to maintain and use such equipment for more than half a century.

## Eugene Bell's tuberculosis treatment program

The Eugene Bell Foundation is a Christian charity as a cause, a non-government organization (NGO) as an institution, and operates as an international corporation. EBF was founded in 1995, which marked the centennial anniversary of the arrival of Reverend Eugene Bell in Korea as a missionary from the Southern Presbyterian Church in the United States. The founder of EBF, Dr. Stephen Linton, is a great-grandson of Eugene Bell, hence represents the fourth-generation missionary family in Korea. Both Stephen Linton's grandfather, William Linton, and his father, Hugh Linton, served long periods in Korea as missionaries: from 1912 to 1960 and from 1953 to 1984, respectively. Hugh Linton studied at the Christian School in Pyongyang during the Japanese colonial period, and later established and ran a TB sanatorium in Suncheon, South Jeolla province, South Korea. Thus, TB treatment and Korea were connected in the family's history. Stephen Linton has personal experience with TB, having fallen ill twice with the infectious disease. He was born in Philadelphia, raised in Suncheon, and completed a PhD in Korean Studies at Columbia University in New York. His family's long-standing tradition of missionary work in Korea, Linton's subtle knowledge of Korean culture, and his fluency in Korean language have facilitated relations between the EBF and the DPRK. Linton's links to North Korea date back to 1979, when he visited Pyongyang as an observer to the World Table Tennis Federation's matches. He also worked as a special consultant to Reverend Billy Graham in the early 1990s and accompanied him on his visits to the DPRK, which included on one occasion a meeting with Kim Il Sung<sup>10</sup>.

When the North Korean government sent an international plea for food aid in 1995, Stephen Linton was on its mailing list. In 1995–1996, the EBF shipped 18,000 tons of food to the DPRK, including 12,000 tons of grain—unpolished rice from the US and corn from China, among others<sup>11</sup>. This was the beginning of the EBF's long-term engagement in North Korea. According to a survey of international engagement with the DPRK, from 1995 to 2012, there has been a steady rise in the number of organizations and activities in North Korea, with the exception of 1999, 2006 and 2009—years of political instability on the Korean peninsula. In 2012, for instance, there were 1200 initiatives (both continuing and newly initiated) by foreign organizations in North Korea. These activities can be classified into several categories: humanitarian relief (56 percent), development assistance

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<sup>10</sup> Linton (2015)

<sup>11</sup> *Ibíd*em

(21 percent), business (17 percent), educational assistance and professional training (4 percent), and others (3 percent). These figures can be misleading, though, as the scale and effect of the projects vary significantly. The United Nations Development Program (UNDP) is one of the DPRK's donors, but the amount provided is relatively insignificant compared to other recipient countries. UNDP's budget for North Korea in 2014 was \$US2.3 million, which represented \$0.09 per capita aid, whereas the budget for Laos was \$US6.8 million (\$2.49 per capita), for Cambodia, \$US15.5 million (\$1.29 per capita), and so forth<sup>12</sup>. From 1998, South Korean NGOs increased their activities in the DPRK with the official support of the newly elected Kim Dae Jung Administration. Between 1995 and 2001, South Korea-based organizations donated food, clothes, and medicine worth \$US162 million to North Korea<sup>13</sup>.

In 1997, the focus of Eugene Bell's activities turned to TB treatment in North Korea, given the severity of the infectious disease there. In 1998, the DPRK's Ministry of Public Health (MOPH) adopted Directly Observed Treatment, Short-course (DOTS)—a WHO-recommended strategy for TB control. The DOTS includes sputum smear microscopy for diagnosis and standardized regimens of quality-assured drugs for treatment, a relatively new approach in North Korea. In 2003, the DPRK began procurement of TB drugs from the WHO-related Global Drug Facility (GDF). In 2010, the Global Fund to Fight AIDS, Tuberculosis and Malaria allocated \$US41.1 million over five years to help TB treatment in North Korea. The WHO and UNICEF have managed the Global Fund project in the DPRK in cooperation with the MOPH<sup>14</sup>.

The EBF originally provided TB aid in North Korea within the framework of the DOTS approach. For ten years, from 1997 to 2007, the EBF supplied TB medication kits for 250,000 North Korean patients. The kits contained drugs for six to eight months (at a cost of \$US40 per kit). The Foundation also provided twenty-six mobile X-ray vehicles and diagnostic equipment. In 2002, the EBF started a Diagnostic and Operating Room Program (this was not considered DOTS), providing assistance to fifty medical facilities in North Korea. Further, in 2008, USAID partnered with the EBF to provide generators and medical equipment for three hospitals in North Korea's South P'yongan province<sup>15</sup>.

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<sup>12</sup> Yeo (2015)

<sup>13</sup> Flake and Snyder (2003): 87

<sup>14</sup> Seung and Linton (2013)

<sup>15</sup> Eugene Bell Foundation website, available: <http://www.eugene-bell.org/our-story/history/>, accessed June 1, 2015.

Since 2007, the EBF has focused on the treatment of MDR-TB patients in North Korea. Dr. Kwonjune Seung is the medical director of the Foundation and architect of its MDR-TB treatment program in North Korea. Kwonjune Seung earned his BA at Harvard University and graduated from Stanford Medical School in 1998. He was involved in the Partners in Health project in Peru (2001–2004) to treat multidrug resistant tuberculosis. From 2004 to 2006, Seung worked in WHO's Department of HIV/AIDS and was deputy director of the Partners in Health Lesotho project to treat MDR-TB and HIV co-infected patients. He has been appointed to the Core Group of the Global Drug-resistant Tuberculosis Initiative—a newly-formed WHO task force designed to combat MDR-TB around the world<sup>16</sup>.

North Korean MDR-TB patients are largely treated in sanatoria. Eugene Bell currently has approximately 1200 patients in treatment in twelve sanatoria located in four provinces of North Korea. As of 2015, the EBF has provided treatment to over 3000 MDR-TB patients. An EBF delegation visits the TB centers every six months, in the spring and the fall. The delegation spends one day in every TB sanatorium it operates in North Korea. The delegation members and local medical personnel evaluate the progress of the six-month cycle of treatment of existing MDR-TB patients, register new patients and graduate those who have completed their 18-month treatment program. The registration of patients involves the diagnosis of pre-selected patients who do not respond to regular TB treatment and are suspected of having MDR-TB. For this purpose, EBF members and local personnel set up five temporary stations to manage the evaluation process. The stations are located outdoors, usually in the yards of the sanatoria, as indoor conditions at the sanatorium can be highly contagious.

Generally patients are from the surrounding area but some come from other districts. There were cases of patients who had ridden a bicycle for hours to arrive at the TB center for the checkup. Weight is one indicator of the physical condition of patients and the progress they have made during the treatment course. New patients provide two samples of sputum in two tubes for separate testing, while existing patients provide one sample. One of the samples from new patients undergoes on-the-spot testing by Xpert MTB/RIF; the second sample from new patients and the single sample from all existing patients is carefully stored in special boxes for laboratory tests in the Korean Institute of Tuberculosis, a South Korean laboratory. Chest x-ray tests for all patients is also part of the evaluation process.

Since 2011, EBF has employed Xpert MTB/RIF, which allows for on-the-spot diagnosis of MDR-TB. Xpert MTB/RIF uses an automated genetic amplification

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<sup>16</sup> Interview with Kwonjune Seung, Seoul, May 2015.

technique, which within two hours can identify tuberculosis and whether it is drug-resistant strain by testing the sputum of patients. The EBF team also carries power generators for running the Xpert MTB/RIF tests, x-ray machine, and other equipment. Thus, the delegation provides a complete mobile laboratory.

While waiting for the test results to determine the diagnosis of new patients, the EBF delegation informs the patients about MDR-TB, including a lecture by Stephen Linton. A comic book, written in Korean and designed and printed by the EBF, contains accessible information about the disease and its treatment, the side effects of drugs, effective preventions from contaminating relatives, etc. New MDR-TB patients are registered and given a box with a six-month supply of second-line TB drugs and nutritional supplements. After this, the processes at the TB center are completed and the EBF delegation returns to Pyongyang. Six months later, the EBF delegation returns to the sanatorium and repeats the same procedure together with the local medical staff. They collect patient information (weight, x-rays, etc.), cross-check test results from their sputum sample taken on the previous visit, test and register new patients, graduate patients, and distribute medical regimens and nutrition supplements to new and existing patients, and so another six-month cycle begins.

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In one study, EBF analyzed the results of drug susceptibility testing of 245 culture-positive candidates for MDR-TB treatment that were presented to the EBF delegation during three visits between April 2010 and April 2011. Of these, 213 (87 percent) were diagnosed with MDR-TB (resistance to isoniazid and rifampicin). Thirty-five (14.3 percent) were diagnosed with MDR plus resistance to a second-line injectable (kanamycin or capreomycin), and 21 (8.6 percent) were diagnosed with MDR plus resistance to ofloxacin. Six patients (2.4 percent) were diagnosed with extensively drug-resistant (XDR) TB, which is MDR plus resistance to a second-line injectable and ofloxacin<sup>17</sup>.

Myung-sook (not her real name) and her brother suffer from tuberculosis; they probably contracted TB from their parents who had died earlier from the disease. Many of the EBF patients are from “TB families,” for families are vulnerable to spreading the disease amongst themselves due to their close contact. The TB bacteria was dormant in the lungs of Myung-sook and her brother for some time and when it became active they became sick with drug-resistant TB. Myung-sook’s brother died a month after starting treatment in the EBF program; the disease was simply too advanced<sup>18</sup>. The problem is that separate drug-resistant TB diagnosis is unavailable in the DPRK. MDR-TB requires different procedures

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<sup>17</sup> Seung and Linton (2013)

<sup>18</sup> Interview with Kwonjune Seung, Seoul, May 2015.

and treatment that are beyond the means of the MOPH. This is the primary reason why EBF stepped in to fill this dangerous public health void through its diagnostic and treatment program.

The EBF has diagnosed thousands of patients in North Korean sanatoria with MDR-TB. Almost all of them, like Myung-sook and her brother, have not responded to multiple standard first-line TB treatment courses. Treatment of MDR-TB patients requires second-line TB drugs, which are almost completely unavailable outside of the few sanatoria supported by the Foundation. Thus, the majority of patients with the MDR-TB strain have little choice but to undergo regular TB treatment<sup>19</sup>.

The EBF program for MDR-TB treatment in North Korea has had an over 70 percent cure rate, while the world average for such cases is a 45 percent cure rate. There are several reasons for this remarkable achievement. One factor is the treatment regimen, designed by Eugene Bell, which combats the MDR-TB in a straightforward and consistent way. As mentioned, the treatment of North Korean patients is conducted at sanatoria, rather than at home, which helps the proper management of their treatment. They are educated and willing to follow the entire course of treatment. The second-line of drugs for the MDR-TB regimen has heavy side effects, such as severe nausea and vomiting. Some patients can even suffer nerve damage in the feet or kidney damage. Others may also experience psychological problems such as acute anxiety, depression, or psychosis. Still, only 2 percent of North Korean MDR-TB patients “default,” or leave the treatment program prematurely. By comparison, nearly 30 percent of South Korean patients stop treatment. The cure rate in South Korea in 2013 was 46 percent, almost identical to the world average<sup>20</sup>. The spring 2015 EBF delegation enrolled more than 450 new patients while about 300 more patients completed treatment, so that currently more than 1,200 patients are in the EBF program in North Korea<sup>21</sup>.

Min-chul (not his real name) is a young North Korean patient in his twenties who was recently enrolled in the EBF program. He was diagnosed with TB several years ago, but was not tested for drug-resistance due to the lack of a laboratory for such an examination. As a result, he was prescribed the standard first-line four drugs for a six-month TB treatment course. Min-chul felt better after he started the treatment, but the TB symptoms returned after he finished the course. This was the first indication that he in fact had a drug-resistant strain.

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<sup>19</sup> *Ibídem*

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<sup>21</sup> Eugene Bell Foundation, Spring Delegation Report 2015

The cycle of TB treatment, relative cure (disappearance of the TB bacteria from the patient's sputum), and return of the symptoms afterwards occurred several times over the next four years. EBF testing confirmed the suspicions of local medics that Min-chul suffered from MDR-TB. He was enlisted in the EBF program with second-line drugs. These drugs are not available in North Korea, so TB there never developed resistance to them and they are still effective against multi-drug strains. The second-line drugs are weak, so the treatment is longer, up to two years and with severe side effects, as mentioned above. The first week of Min-chul's MDR-TB treatment was a nightmare. Soon after taking the first pills in the morning he began vomiting all day. On several occasions he vomited up the pills; on others, he would feel nausea even before taking the pills just from hearing the knocks on the door of the nurse who administered his daily doses. Though the patient's condition stabilized after the doctor prescribed anti-emetic medication, he felt nausea for months. Min-chul's fever and cough gradually abated. His sputum was tested negative for TB bacteria and after eighteen months of treatment he graduated the program as a cure<sup>22</sup>.

Since one of the causes for TB infection and development of the disease is malnutrition, the EBF treatment includes nutritional supplements—a mixture of grains that provides calories and protein—in the daily regimen of MDR-TB patients. The grains are dissolved in water and the patient drinks the mix as a juice. Patients are also supported by their families in providing food and wood for *ondol* (floor heating) in the sanatoria. During their visits, EBF members often witness this local support which facilitates the successful treatment of patients.

Eugene Bell tries to improve the housing conditions in sanatoria by providing prefabricated patient wards. In 2010, EBF helped manufacturing and ship five portable patient wards to North Korea. The Foundation initiated a new construction project in the spring of 2015, building three patient wards in a TB sanitarium. The project uses the latest construction technology in the design, fabrication, and construction of houses by the quick assembly of panels with excellent insulation from both heat in summer and cold in winter. Future plans call for the project to expand with dozens of buildings.

The Eugene Bell Foundation differentiates itself from other NGOs in its exclusive focus of activities in North Korea. The Foundation is a facilitator in a chain of institutions and individuals involved in the humanitarian work. Every North Korean patient knows his or her benefactor, as their sponsor's name is written on the box they receive with their personalized package of drugs and nutritional supplements, a system called "one-to-one-program," or donor-to-patient link. Do-

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<sup>22</sup> Interview with Kwonjune Seung, Seoul, May 2015.

nors range from churches to businesses to individuals. In this regard, the EBF is truly non-governmental in terms of its funding and operations. And this is another factor in the charity's successful engagement with the DPRK—it has no political agenda in its work and interaction with North Koreans. For example, the EBF was able to continue its work during the Lee Myung Bak Administration, when many South Korean NGOs disengaged from North Korea.

Another feature of the Foundation's work is its organization as a company. The Foundation raises funds targeting specific procurement. The MDR-TB treatment is much more expensive than the standard TB treatment. According to the EBF method, the eighteen-month MDR-TB treatment cost \$US 5000 per patient in North Korea. Half of this amount is for drugs, and the other half for administrative and other expenses involved in getting the kits to patients in North Korea. Still, this amount is dwarfed by MDR-TB treatment costs in South Korea (\$US 50,000 per patient) or the United States (\$US 500,000 per patient). EBF purchases drugs, nutrition supplements and other materials and services for the MDR-TB treatment at market prices.

The MDR-TB drugs alone cost over half-a-million dollars for the six-month cycle of treatment. The shipment of medicine and nutritional supplements is carried out by a Chinese shipping company (recommended by the North Korean side) from Pyongyang, South Korea, via a Chinese port to Nampo, North Korea. The boxes for the patients are stored in warehouses in Pyongyang, and the EBF delegation hand delivers them to the patients in the country's twelve sanatoria. For this purpose, EBF has purchased its own vehicles for the local transportation of the delegation and medical cargo. The construction materials for the ward project in 2015 were shipped from the United States by the same Chinese company.

The Eugene Bell Foundation has offices in Washington, D.C. and Seoul to coordinate work with donors, contractors, and North Korean counterparts. The EBF's 2014 budget increased by 34 percent over 2013, reaching \$US3.277 million. Forty percent of these funds were raised from corporations, 30 percent came from private donors, 27 percent from churches and other private organizations, and 3 percent from other sources. Further, 76 percent of the expenses were spent directly for the program, while the rest was spent on administrative (12 percent) and fundraising activities (12 percent)<sup>23</sup>.

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<sup>23</sup> Eugene Bell Foundation, Annual Report 2014.

## Working with North Koreans

The principal partner of the Eugene Bell Foundation in North Korea is the DPRK's Ministry of Public Health. MOPH officials accompany the EBF delegation during every visit and coordinate work in the sanatoria with the local medical personnel. The EBF's initial contact with the DPRK was through the Foreign Ministry-guided Flood Damage Rehabilitation Committee (FDRC). The FDRC sent out an international call for food relief in 1995. Nearly ten years later, coordination of the DPRK's work with NGOs in the United States has been assumed by the Korean American Private Exchange Society (KAPES) under the umbrella of the North Korean Foreign Ministry. There is a KAPES representative at the UN mission of the DPRK in New York, and all communications of between the EBF and its North Korean counterparts are conducted through this channel. KAPES in turn relays these exchanges to the MOPH<sup>24</sup>.

In addition to the challenges of this limited communication and its absence from North Korea except during the two annual visits, the EBF has faced difficulties in raising funds for its humanitarian work. The DPRK has a reputation as a pariah state, which does not raise much international sympathy for its plight. So it is not by chance that the majority of the donors for EBF project in North Korea are either South Koreans or Koreans living abroad. But as much as North Korea is widely perceived as an isolated and recalcitrant state, the reverse can also be valid: the outside world is isolated from the DPRK. For instance, procurement and shipment of cargo from South Korea to North Korea faces numerous bureaucratic and logistical challenges. Shipments require permits from various South Korean agencies, and when the atmosphere on the peninsula is tense, there are additional uncertainties in executing the program. Sanctions also create various hurdles for the work of the EBF in North Korea. The import of high-technology products is prohibited, so the EBF has to receive a special permit from the US government to bring Xpert MTB/RIF equipment to North Korea. Since 2014, the EBF has stored this equipment in the British embassy in Pyongyang in between the delegation's visits.

At the same time, the North Koreans need and show flexibility in managing the project on their side. For example, the supply of new drugs from abroad for treating MDR-TB does not require the bureaucratic approval from an agency like the Food and Drug Administration in the United States or relevant agencies in South Korea<sup>25</sup>. Still, there are various uncertainties before and during every visit

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<sup>24</sup> Linton (2015)

<sup>25</sup> *Ibidem*

of an EBF delegation to North Korea. The North Korean side approves visas for the delegation members at the last moment. Although it has not created problems in this department thus far, the North Korean counterparts could change agreed upon arrangements with the EBF in the management of the program without prior notice. Nevertheless, once the delegation is on the ground, problems usually are sorted out and the program is managed accordingly from both sides.

Interestingly, during the Cold War East Europeans often complained of similar issues—mainly the failure of the North Korean side to follow prearranged agreements—in their commercial dealings with North Korean counterparts. The North Koreans often referred to their particular position as the “front line” in a global and regional divide, as well as citing related domestic economic difficulties, in explaining why they had difficulties implementing such things as agreed trade exchanges. During its history, North Korea often relied upon the help and support of its allies during difficult times and became convinced that it was entitled to special treatment given the uncertainties on the Korean peninsula. Yet, its growing confidence in the self-reliance (juche) paradigm affected the DPRK’s relations with its socialist partners in the decades the international socialist alliance network was in existence. A combination of awareness of being a frontier war zone, supplemented by an independence drive and mindset, has created in North Korea a sort of self-contained socio-cultural continuum of its own rules and patterns which are not susceptible to change from the outside. The notion of separating the rules valid for North Korea from those rules governing international relations became ingrained in North Korea’s institutional and managerial ethos, creating invisible walls in the DPRK’s dealings with foreign entities and individuals. The EBF has encountered similar hurdles in its experience with North Koreans. But the EBF’s long-standing relations with its North Korean counterparts in managing the TB treatment program also shows some consistency, as the two sides have made compromises to navigate the collaborative process.

As much as North Koreans are willing to accommodate and help manage the tuberculosis treatment program, the EBF has established a transparent and strict system for diagnosis and drug supply—storing, delivering and accounting of all medication and nutritional supplements for every MDR-TB patient. On the first and the last day of each of their visits, the EBF delegation inventories all necessary supplies in the storage facility it uses in Pyongyang for the program. Also, every TB sanatorium within the program has created its own organization accordingly to meet the requirements of the treatment schedule. The medical personnel of the sanatoria administer the treatment of patients according to the organization designed by the EBF medical team—diagnosing and admitting pa-

tients, managing and distributing the medical regimen to the patients, controlling for side-effects, releasing patients, etc. This system was put in place after years of meticulous preparations, regular visits to the medical centers by the Foundation's team, consultations, and continuous management and supervision of the treatment process.

Despite its physical presence in the country for only six weeks of the year, the EBF medical team in a way functions as a sub-unit within North Korea's MOPH. The program is a complex organization with tasks implemented by all parties involved in managing the treatment project. The main role of the EBF is to facilitate this process by linking seemingly incompatible parties from North and South Korea and the United States, which operate with their own rules and managerial cultures. Hence, the Foundation serves as a connecting node for three distinct human and operational networks (the two Koreas and the US) in planning and implementing a comprehensive and uninterrupted system of tuberculosis treatment in North Korea. The EBF also plays the role of intermediary between the two Korean sides, as North and South Koreans involved in the project do not engage in direct contact; nor are South Korean citizens allowed to join EBF team visits to North Korea.

The EBF delegations consist of volunteers from various countries (US, Mexico, France, Italy and Canada, among others) and with different occupations—including medics, priests, managers, and students. There are some core members of the EBF delegation, such as Father Gerard Hammond (81 years of age) from the US-based Maryknoll Catholic Society, one of the regular contributors to EBF fundraising. Hammond has worked in South Korea since 1960 and has joined all visits by EBF teams to North Korea since 1998, experiencing the increasing rigors of the trips and work at TB sanatoriums. He also serves on the board of directors of the Eugene Bell Foundation.

EBF delegations usually include a few donors as well. The construction team of the EBF delegation is also diverse and works closely with North Korean workers, so that both sides form more or less coherent unit as they construct patient wards. This author was a member of the construction team in the spring of 2015 and observed firsthand the work ethic of North Korean workers, who are diligent and disciplined, adjusting quickly to the new technical specifications in building the TB patient wards.

The EBF project connects opposing sides and diverse institutions and individuals in an international human network which serves thousands of MDR-TB patients in North Korea. This circuit links the DPRK with international donors and organizations, a notable achievement given the perceptions and odds in North Korea's

relations with the outside world. Another distinguishing feature of the Eugene Bell Foundation's program is its consistency, which is also a key element in its accomplishments. EBF has conducted humanitarian work for twenty years in North Korea. During this period, the charity spent seventeen years on TB treatment, with a special focus on MDR-TB in the most recent eight years. Furthermore, the EBF program in North Korea has continuously expanded in size and scope. The Foundation's treatment projects have reached at least seventy medical institutions with thousands of TB and MDR-TB patients. But longstanding humanitarian engagement does not automatically guarantee smooth operations and relations with North Korea. Recent incidents with expelled humanitarian workers from the DPRK underscore the risks and erratic nature of running international aid programs in that country<sup>26</sup>.

South Korea and its American ally have drawn up contingency plans in case of the unification of the Korean peninsula. But they have hardly contemplated possible epidemics of TB spreading across the peninsula from the North when hundreds of thousands of economic migrants flock southward in search of work and a better life. While securing a nuclear arsenal and other strategic assets in the North might make sense from a security viewpoint, not addressing humanitarian problems is a recipe for a public health disaster in densely populated areas. The danger of TB epidemics is only one segment of the unforeseen consequences of hasty reunification. If the South seriously anticipates a world in which Korea is reunified, though a timeline for such a reunification cannot be predicted—nor even if it will happen at all—South Korean policymakers and healthcare workers need to devise long-term mechanisms to deal with such a TB problem, starting from the disease's deadliest multidrug-resistant strain in North Korea. Obsession with political differences only deepens the divide and exacerbates the social and public health problems, creating humanitarian minefields along the DMZ

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<sup>26</sup> In late February, 2015, German aid agency Welthungerhilfe reported that its director for North Korea was expelled from the country without explanation. In early April, Sandra Suh from Los Angeles-based Wheat Mission Ministries was expelled from the DPRK, although she was involved in humanitarian work in North Korea for nearly two decades. According to North Korea's KCNA, Suh "frequented the DPRK from 1998 under the pretence of "humanitarianism" but she has been engaged in anti-DPRK propaganda abroad with photos and videos about the DPRK she secretly produced and directed, out of inveterate repugnancy toward the DPRK." Vid.: Korean Central News Agency (KCNA), April 8, 2015, originally available at: <http://www.kcna.co.jp/item/2015/201504/news08/20150408-32ee.html>. Alternatively it can be found at: <http://juche007-anglo-peopleskoreafriendship.blogspot.com.es/2015/04/american-deported-for-committing-anti.html>, accessed July 8, 2015; See also: Reuters, April 8, 2015, available at <http://www.reuters.com/article/2015/04/08/us-northkorea-usa-ngo-idUSKBN0MZ1FJ20150408>, accessed on July 8, 2015.

ready to explode with the first major interaction of peoples from both sides. The best policy in the humanitarian field, therefore, is an apolitical one. In a broader sense, Korean and foreign practitioners can build bridges between the two Koreas more successfully than politicians.

An important conclusion from the case study of the Eugene Bell Foundation's humanitarian work in North Korea is that positive engagement with the DPRK lies beyond politics, and on a human level. When Reverend Eugene Bell arrived in late-Chosŏn Korea a hundred and twenty years ago, the country was perceived as a "Hermit Kingdom" by the outside world, while the country's ruling Chosŏn dynasty saw foreigners mostly as a threat. Still, by working with ordinary Koreans, Reverend Bell and other missionaries created lasting linkages between Korea and the outside world. The Chosŏn government also showed adaptability, using the services of foreign advisors like Paul Georg von Möllendorff, a German who at one point became a head of the country's Maritime Customs Service, in its reform efforts. Although Korea ultimately fell under Japanese rule, the work of Christian missionaries in building hospitals and fostering education had a lasting legacy for the Korean peninsula. Eugene Bell's work represents a rare continuity in engaging Korea throughout the tumultuous and divisive history of the peninsula in the modern age. And the key aspect of that effort was the work with ordinary Koreans. In recent times, a seemingly closed North Korea has shown flexibility in its relations with foreigners, when those relations are based on trust and guided by humanitarian purposes. After all, it is the people who matter most.

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