

Voices of Sanitation Workers in Japan amidst the COVID-19 Pandemic

Makiko Deguchi, Matsumoto Chie

Abstract: Sanitation workers in any society are essential workers that deal with the ‘dirty work’ that most people would rather not do. With the coronavirus outbreak in 2020, these workers have been particularly vulnerable with the increase in the amount of household garbage due to people staying home, as well as potential exposure to the virus through handling contaminated trash. This paper analyzed interviews of six Japanese men who work in garbage collection and/or are sanitation union members to shed light on how they experienced the impact of the coronavirus outbreak in their daily lives. Qualitative analysis highlights the following seven themes (1) Alerting overseas news of potential dangers; (2) Fear of contracting Covid-19; (3) Negotiated for safer protocols and gear; (4) Increased workload; (5) Experience of discrimination and stigma; (6) Increased public attention and awareness; and (7) “Our Work Goes Beyond Garbage Collection.” The paper also highlights sanitation workers’ concern with the increased privatization of the public sector, pointing out how this may undermine the general welfare of society especially in times of crisis.

Keywords: Covid-19, vulnerable populations, sanitation workers, labor unions

Introduction

On April 18, 2020, Kobe Shimbun, a local newspaper, reported an announcement by the Kobe City Office that three sanitation workers in their 40s and 50s were infected with COVID-19 and hospitalized (“Koube shi no gomi,” 2020). Two days later, another report stated that two additional workers had contracted the virus (“Koube-shi kankyo-kyoku de,” 2020), revealing a cluster with a total of 7 coronavirus cases, which rose to 15 in a matter of days. The city decided to shut down its Suma Ward garbage collection branch, asking the remaining 55 workers to stay home, as they were considered close contacts. Workers from other districts assisted with garbage collection in Suma Ward at this time.

This news of the temporary shutdown of a garbage collection branch inside a major city exposed the essential yet invisible work of collecting, treating, and disposing of household trash that helps keep the city running. Sanitation workers in any society are essential workers in any society whose contributions cannot be shut down under any circumstances to ensure the community functions in a clean and hygienic conditions. For this paper, we interviewed several individuals who presently or previously work as garbage collectors, as well as union members to shed light on some of the serious issues they face in their jobs. This paper calls attention to a group of under-appreciated workers in Japan who are vulnerable to exposure to coronavirus, but who are asked to continue to put their health at risk to provide essential services in dangerous times. The paper also highlights

sanitation workers' concerns with the increased privatization of the public sector that may undermine the general welfare of society, especially in times of crisis.

Japan's Waste Disposal Workers

According to the 2015 national census data, there were 114,990 people engaged in waste disposal work in Japan ("Kokusei chousa Heisei 27-nen," 2015). Waste disposal workers include workers who dispose of human waste, household garbage, and oversized trash, as well as those involved in the collection, transport, and disposal of industrial waste. The average age of these workers is 48 years. The number of workers over the age of 65 is 13,510, with 1,400 workers being over 75 years old. Although the data on gender breakdown was unavailable, the sanitation industry in Japan is predominantly male, and the fact that older men were found to be more vulnerable to coronavirus (Lawton, 2020) makes this group particularly threatened.

Garbage collection must be performed outdoors in all kinds of extreme weather and temperature conditions, including severe heat and humidity as well as cold weather and snowstorms. It is physically demanding work that requires hours of continuous lifting, carrying, and throwing trash into collection vehicles. This work must be performed quickly to keep the street traffic moving. There is also high risk of falling from the vehicles that can result in injuries (Tsujimura, Taoda, & Kitahara, 2012). Studies have shown that sanitary workers suffer chronically from lower back pain (Ohhori et al., 1986). A study conducted on the health and safety risks facing trash collectors determined that the biggest threat is ergonomic injuries, followed by cuts, and then exposure to microorganisms (IRSST, 2002).

In addition to risk of physical injuries,

sanitation workers are also exposed to hazards such as toxic substances (Park et al., 2011) and high-risk biological (micro-organisms) and chemical agents (Ivens et al. 1997). Such exposure can result in respiratory symptoms caused by dust, mites, and bacteria, and gastrointestinal problems such as nausea and diarrhea. Because some of the known adverse health effects from the coronavirus include damages to the respiratory system (nose, throat, lungs) that can lead to pneumonia and acute respiratory diseases (CDC, 2020), sanitation workers whose respiratory systems are already under pressure (Abou-ElWafa et al., 2014) may be more vulnerable as well.

In this study, the authors focused on the experiences of individuals working as garbage collectors amidst the pandemic. Six current or recently retired garbage collectors in the greater Tokyo region and major cities in western Japan were contacted by email or phone and asked to share their thoughts and experiences regarding their trash collection work amidst this pandemic. The interviews took place during the month of May 2020, four months after the first coronavirus case was reported in Japan on January 16, 2020. The interviewees were all men, their ages ranging from 40s to 70s, who have worked in this occupation for between 8 and 44 years (with a median of 20.6 years). Interviews were conducted over the phone in accordance with social distancing protocols. Content shared on SNS such as Twitter by sanitation workers was treated as additional data and included in the analysis.

Interviews were digitally recorded and transcribed. Content analysis was used, a systematic process for encoding qualitative information that permits discovery of recurring themes across participants (Boyatzis, 1998).

The following seven themes emerged from the interview data: (1) Alerted by overseas news of potential dangers; (2) Fear of contracting

COVID-19: (3) Negotiated for safer protocols and gear; (4) Increased workload; (5) Experience of discrimination and stigma; (6) Increased public attention and awareness; and (7) “Our Work Goes Beyond Garbage Collection.”

Alerted by Overseas News of Potential Dangers

One theme that emerged from the interviews was that sanitation workers were alerted to the dangers of infection from contaminated garbage when they received news that the virus infection spread in this way in the U.S., where the outbreak intensified earlier than in Japan.

We received reports through the *Jichiro* [union confederation] that viral infection spread in New York City through garbage containing contaminated materials. We then alerted our members in Tokyo and launched a series of countermeasures such as wearing masks, avoiding 3Cs (closed spaces with poor ventilation, crowded and close-contact settings), and working from home on days they can.

-- A veteran sanitation worker in Tokyo

Fear of Contracting Covid-19

Sanitation workers expressed grave concerns about exposure to the virus and contracting it as they had to collect garbage that could include contaminated masks, tissues, and other materials.

We never know whether the bags contain contaminated masks or other dangerous materials. We never know. Sanitation workers expose themselves to the danger of contracting COVID-19 while making

tireless efforts to prevent it. We grab as many bags of garbage as possible and throw them into the truck as we run alongside it. And when we run, we breathe hard. We get out of breath. Bags routinely burst. If bags with contaminated materials burst, we would face a higher risk of being exposed to the virus.

-- A retired sanitation worker

I started wearing face masks and goggles to prevent contracting the virus through my eyes. We need these because it gets dusty and liquid squirts out when the panel compressor rotates on the truck. I need to protect myself completely as I have a family. When I go home, I disinfect my work clothes at the door. After I take a bath, I also wash my clothes. I do this every day.

-- A Tokyo sanitation worker in his 40s

We know that inside the household garbage, there are used face-masks that may have been contaminated with the coronavirus. There is rising concern when plastic garbage bags burst as they are compressed in the truck. Even when we are faced with a risk of virus infection, garbage collection must go on. We continue working with the slogan, “*Kansen shinai, sasenai*” [Avoid getting infected and avoid infecting others]. Since the virus is invisible, our workers are trying their utmost to protect their elderly parents and their young kids. They are worried about even going home after work.

-- A Tokyo union official

As workers are squirted with wastewater or some liquid remains almost daily, the reports [from New York City] rang true for us. However, masks were scarce at the time.

-- A veteran sanitation worker in Tokyo

My employees worked with complete protection. I also gave them each sanitizers that they could spray on themselves, which was recommended to me from someone I knew. I was extremely worried about infection as our workforce is pretty tight. If we have even one getting sick, we would have no replacement. We are a cooperative, composed of six companies, so we agreed to help one another in times of virus outbreak.

-- A private garbage collector

Although it did not come up in our interviews, sanitary workers who were in charge of sorting P.E.T bottles expressed concerns about exposure through touching the orifice of bottles that could be contaminated. Since sanitation workers typically do not wear masks as it is hard to breathe during the heavy workload, these health precautions were an added burden on the already tasked workers. The act of collecting trash is so physically demanding that sanitation workers, not only in Japan, but in many parts of the world, find it difficult to do their jobs with masks on. Obviously, in times of heightened infection, the practice represents a substantial risk. Until there are innovations in personal protective equipment, this will probably continue to be part of the risk associated with the job.

Essential workers in Japan, as in many parts of the world, including doctors, nurses, and sanitation workers, experienced a shortage of PPE (Personal Protective Equipment) in March 2020, when face masks were being hoarded and were unavailable in stores. The production of face masks wasn't fast enough to meet the demand. The Tokyo Sanitation Workers Union informed the government ministry of their current work situation, the risks and the concerns of its union members, demanding that the government secure and provide PPE for the sanitation workers.

We had exchanges with the Ministry of the Environment through our union confederation and conveyed how our work supports the foundation of people's lives. As we confirmed with them that public sanitation business must go on, we requested that the state secure masks, PPE and sanitizers as well as providing additional guidelines on garbage collection [during the pandemic] to prevent workers from being infected. The Ministry said they would do its utmost, even promising to go through channels they would never do otherwise.

-- A Tokyo union official

Negotiations for Safer Protocols and Gear

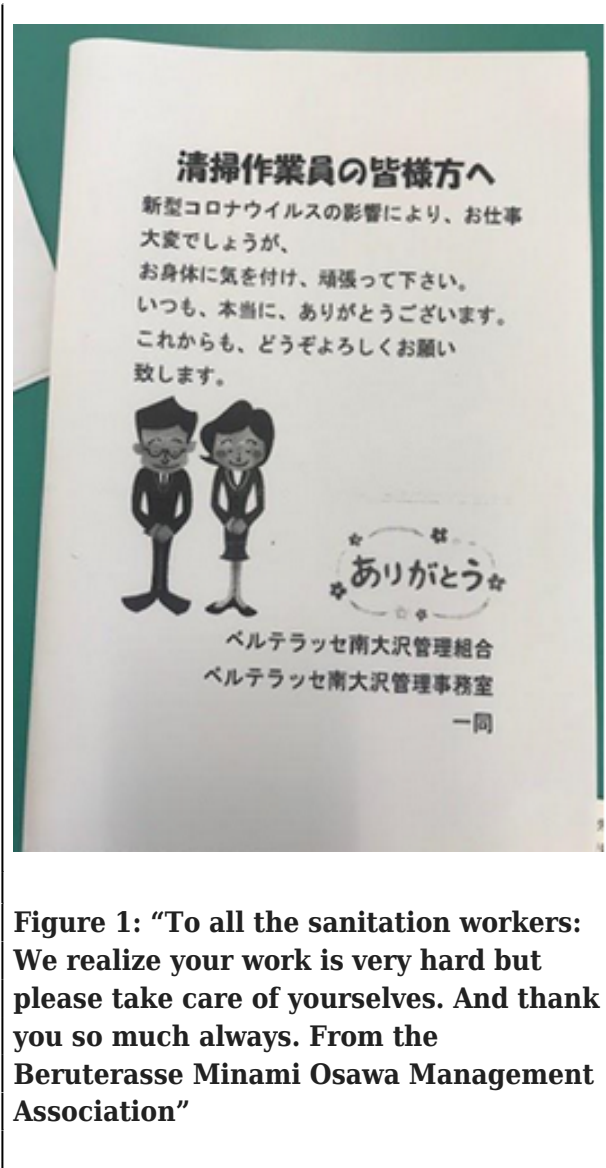


Figure 1: “To all the sanitation workers: We realize your work is very hard but please take care of yourselves. And thank you so much always. From the Beruterasse Minami Osawa Management Association”

Increased Workload

As more people remained inside due to the pandemic, people were cooking more and spending more time cleaning their homes, resulting in an increased amount of household combustible trash as well as more oversized garbage, which led to an increased workload for sanitation workers. For example, the amount of household trash grew by 5.7% between February 24 and May 10 in Tokyo’s 23 wards, while that of office trash dropped 30%, compared to the same period a year before (Tokyo Authority of Waste Disposal, 2020; “Gaishutsu Jishuku,” 2020).

We are so busy, it is as if every day were *oshogatsu* [Japanese New Year’s holiday]. We’ve been working day in and day out, non-stop. We cannot stop. Our work hours get longer, yes. We drive to the dumpster every time the truck gets full, so we make five or six rounds to and from the designated trash collection stations in neighborhoods and the dumpsters on an average day. During the pandemic, though, we are doing one more round each day. That may not sound like much, but it takes 20 minutes each way to and from the dumpster to a clean station. Plus it takes an hour to fill up the truck.

-- A Tokyo sanitation worker in his 40s

We have 1.2 times more large size garbage as people are doing extended house cleaning. Private companies suspended their collection of Used clothes during the coronavirus pandemic, so these are dumped as burnable garbage. Our work hours are getting longer, too.

-- A worker in western Japan

The household trash doubled. It seems like summer holiday or New Years holiday, when people come home for the holidays and dine at home with their families. We’ve had a substantial amount of garbage due to coronavirus outbreak.

-- A private garbage collector

Experience of Discrimination and Stigma

Sanitation workers in Japan have long faced stigma and discrimination due to the unclean nature of the work. In Japan’s feudal past, sanitation work had been associated with

burakumin, an underclass based on a now obsolete caste system who engaged in what the public deemed as filthy and impure, such as sanitation work and garbage collecting (see Amos, 2019). Although there are no statistics on the percentage of minority groups among sanitation workers in Japan now, it is likely that a certain percentage of sanitation workers have ancestry in historically oppressed groups. In recent years, stories in the media include, for instance, sanitation workers overhearing mothers telling their child, “Study hard so you don’t become like them” (Fujii, 2019). Interviewees spoke of the unfairness of discrimination as they provide an essential service for society.

Sanitation work is essential, but we have long experienced heartless discrimination. People may be interested in the garbage they produce but their interest never extends to the workers who collect their garbage.

-- A retired sanitation worker

For a long time, we have worked side by side with discrimination. That’s why our predecessors introduced and continued to promote programs to gain public understanding of our work.

-- A Tokyo union official

Increased Public Attention and Awareness

Not all of the interviews were about the downsides due to the pandemic - some good did come out of the pandemic for sanitation workers. After years of discrimination and prejudice, they are receiving, possibly for the first time, positive public attention and appreciation. The awareness that sanitation work is an essential foundation of society, which has mostly remained beneath the radar

of public consciousness, suddenly came into the spotlight. One worker in eastern Tokyo received a hand-drawn picture book from a young child. Other workers reported feeling that people were expressing sincere concern for the health and safety of sanitation workers during the shortage of PPEs. Some participants mentioned how such recognition and appreciation were a source of motivation and elevated morale. (See Figures 1-4.)

During the coronavirus outbreak, sanitation work has finally been recognized as an occupation that supports people’s everyday life. My friend received a picture book drawn by a child. I have seen thank you notes posted at the bottom of the bag or on the back of a trash bin’s lid. It makes me happy when people spell it out like that. They also said kind things to me in person, too.

-- A Tokyo sanitation worker in his 40s

We had almost no media attention before this pandemic, but now our work is being widely appreciated, and we are so pleased to hear that. We are committed to reciprocating their understanding and support.

-- A veteran sanitation worker in Tokyo

We have received hundreds of letters and messages, some of which were posted at the *gomi shuushuu-jou* [clean stations] and others on the trash bags themselves. Along with them came increased media attention to our high-risk job. They contribute to boosting motivation among workers. This shows that our work has been recognized as indispensable. Our effort to raise

awareness and to gain better understanding of our work was not in vain.

-- A Tokyo union official

We have never received words of appreciation to this extent before. People were telling us to take care of ourselves in this corona pandemic. Some workers are so ecstatic that they post these notes on their trucks. It really makes us happy. I think people have realized that our work is essential and they appreciate our continued devotion even risking the virus infection.

-- A retired sanitation worker

We used to receive more complaints about making a mess after garbage collection or speeding in a narrow street--though as public sector workers we would never do that--than these thank-you letters. This is a sign that citizens' attention is directed toward us. Workers are very pleased. We feel we are making people happy when seeing them wave at us.

-- A worker in western Japan

People in the community expressed their appreciation toward us with a message saying, "In such hard times, thank you for working hard (for us)." These were posted at the garbage stations. I hear from my workmen they hear people thanking them. It encourages us and gives our work meaning.

-- A private garbage collector

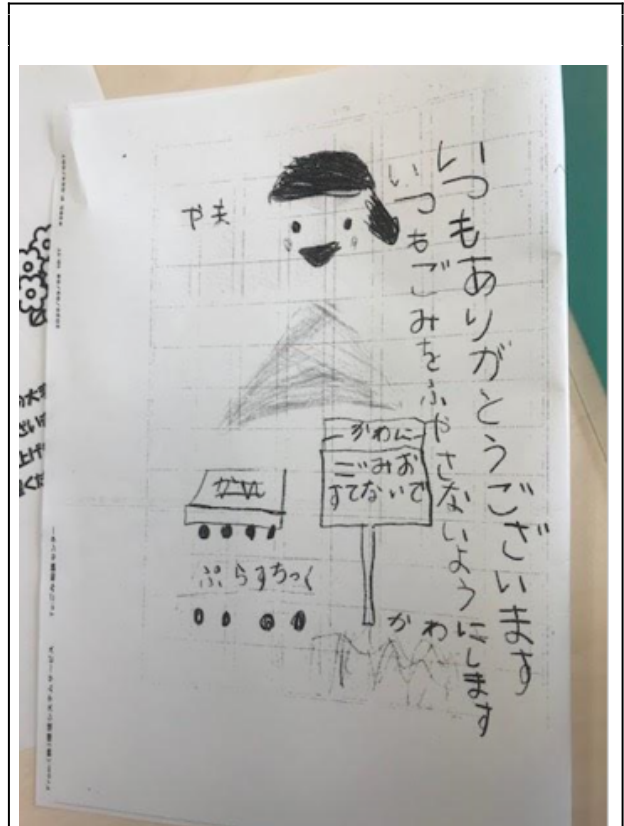


Figure 2: "Thank you as always. I will try not to create too much garbage" (Illustration of a sign board that reads 'Do not throw trash in the river.')

"Our Work Goes Beyond Garbage Collection"

The final theme that emerged from the interviews was the sense of commitment the public sanitation workers felt towards their occupation and the strong belief that their work goes beyond garbage collection. The interviewees emphasized pride in their work as something that can only be properly carried out through the public sector, expressing skepticism about the increasing privatization of the sanitation business in Japan, where as some municipalities have completely turned the work over to private companies. Workers and union

members interviewed felt that the only way for sanitation workers to use their unique position in the community to further benefit the greater public was by keeping it a public sector occupation.

Our cooperative runs biomass for renewables in hopes of circulating resources within our city to benefit the citizens. I'd like to do my best to run it successfully as it benefits everyone who lives in this city rather than only benefiting us.

-- A private garbage collector

In order to reciprocate the citizens' feeling that our work is something important, we want to do good work. There is so much more we can do to expand beyond garbage collection at clean stations throughout town. Garbage contains private information. That's why the collection must remain in the hands of the public sector. There have been increasing numbers of frauds and scams (targeting the elderly), so we cannot just leave it to private companies.

-- A veteran sanitation worker in Tokyo

When garbage collection is privatized, workers lack exchanges with citizens of their own cities. That prevents municipal offices from taking in people's requests and opinions for improving the living environment. We bond with people in the communities and protect them by being there every day. This is a part of local government's responsibility to protect their health and environment. Private companies rarely have full-time workers.

Most of them are temps or work on a short-term basis. I don't think they have the same level of commitment and devotion that we do, and they can't. This affects whether or not they can act quickly in emergency situations.

-- A Tokyo union official

Workers of private companies may only think about cleaning garbage, but we are thinking about citizens of our communities. If I quote Fujii Seeichiro who wrote the book *Gomi Shushu toiu Shigoto* [What it means to work in garbage collection], we are an asset to the community. Under critical circumstances such as in this pandemic, it is only the public sector that can mobilize across the borders of municipalities.

-- A retired sanitation worker

Private companies just pile up the garbage. That's all they do. Our work clearly is different. We put in added-value work that private companies can't possibly do. Our government tells us not to waste our time because it wants to privatize the business, but we say we need to create jobs that only we can do.

-- A worker in western Japan

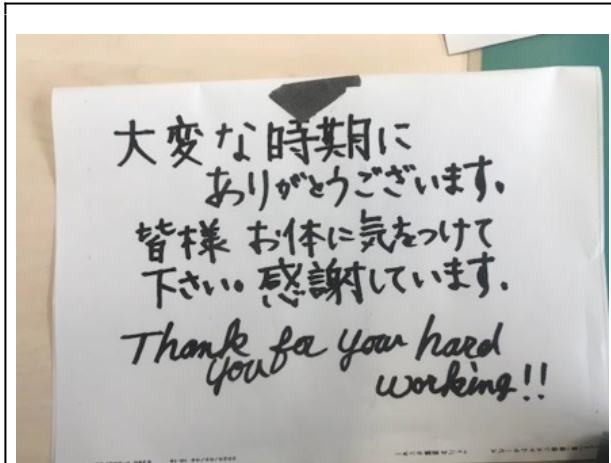


Figure 3: “Thank you during this difficult time. Everyone please take care of yourself. We are grateful.”

Discussion

The interviews revealed several themes including growing fears of contracting the virus at a time of elevated risk factor for essential workers. The first theme “Alerted by overseas news of potential dangers” allows us to understand how the *jichiro* (union confederation) was closely monitoring the impact of the outbreak abroad, attesting to the global scale of the pandemic. We were able to understand how sanitation workers were vulnerable to infection through jobs that bring us in close proximity to potentially contaminated trash such as tissues and face masks.

Not all of the impacts of the pandemic, however, were negative - increased public attention and awareness has raised morale for some workers who felt touched by the kind letters from both children and adults. The fact that some workers pasted these messages onto their trucks shows the extent to which these messages were appreciated.

The last theme, “Our work goes beyond

garbage collection,” revealed a sense of pride and dedication to sanitation work. The interviewees repeatedly commented on added valuable services that they provide, such as being able to check on the elderly, or to pick up trash that people with disabilities cannot bring out themselves. They also felt strongly about their ethical commitment to protect the residents’ privacy as trash contains personal information that could be used in harmful ways.

Such narratives are relevant in light of increasing neoliberal policies in Japan, which has resulted in the shrinking of public sector work, a trend that can also be seen abroad. The waste management business is not immune to this trend to privatization. In order to preserve waste management within the public sector, sanitation workers, especially unions, have been attempting to expand their services and responsibilities thereby enhancing the value of their work. For example, sanitation workers visit schools and teach children about the importance of waste management and take part in other environmental awareness and recycling education programs in their communities.

The increased privatization of the public sector exposes the existing vulnerabilities of waste management work, which is accentuated during crisis situations such as natural disasters or a pandemic such as this one. As Japan is an earthquake-prone country, sanitation workers in Tokyo, for instance, work under the protocol to report to the office whenever an earthquake upwards of level-5 intensity hits. During typhoon warnings, some wards in Tokyo keep their workers on standby, requiring them to stay in the office overnight. Such sacrifices can be asked of these workers precisely because they belong to the public sector and know that during times of crisis, they will be asked to take risks for the greater good of society. People who work for private companies or those who are temporary

workers who most often work without any benefits or protections, on the other hand, do not feel (nor should they be expected to) as though they should risk their lives for their jobs.

Even when these public workers have to prepare for disasters and emergencies, they rarely are rewarded or financially compensated for what they do. Rather, their salary is often subjected to pay cuts. Especially after natural disasters, when local governments are often required to establish emergency funds, public sector workers are often expected to give up some of their benefits. Responsibilities of public sector workers go beyond their vocation. Many share the sense of commitment to protecting the lives of the citizens they serve. This high level of devotion reveals itself in crises and states of emergency such as natural disasters and pandemics, and in countering crimes.

Conclusion

Among the men we spoke to from the public sanitation union, the stories of their experiences with coronavirus illustrate the importance to both workers and society of stable protection of both work and services in times of crisis. As was the case with other front-line industries, their social contribution to public safety and security such as checking on the elderly or keeping an extra eye on the street, becomes more apparent in a time of crisis than is usually the case. The systematic and relatively uninterrupted execution of their work is, in part, a function of their membership in a stable union that can protect them, even in these extreme conditions. With the increasing hollowing out of the sanitation industry—like many other public services—we see fewer public union jobs and increasing insecurity. As we look to the autumn and contemplate the possibility of a resurgence of the coronavirus, or indeed, of any disruption in the already

delicate situation of public (or no longer public) services, it is an open question of when the next time disaster will strike.

If there is a positive side to this pandemic, it may be that in certain parts of the world there is a new public recognition that essential workers, who have been systematically devalued for years and earn very little, are in fact indispensable. If a society recognizes this injustice, it may seek to assure that such workers deserve better pay and job security. A study by Jordà, Singh, & Taylor (2020) examined 15 major outbreaks in Europe over several hundred years, and found that wages increased for three decades afterwards. Some argue that this pandemic, too, can lead to improved wages and benefits for the working class, particularly its underprivileged sectors. Whether such changes will occur in Japan is a different story, since *koumin basshingu* or “public servant bashing” is a familiar phenomenon. Although some are calling out the need to “build back better” and reconsider the way we work, learn in schools, and socialize, sanitation workers may not be at the forefront of Japanese peoples’ consciousness.

Uchida Hirofumi, professor emeritus at Kyushu University, who has long advocated for the rights of Hansen’s disease survivors, has explained that the COVID-19 pandemic is an important opportunity to discover the vulnerabilities within society and to ensure that we overcome such vulnerabilities (Uchida, 2020). His message is clear. “When we ‘return’ to our daily lives, it is most important to have the perspective of ensuring human rights as a key component. Without this, we cannot change for the better” (Uchida, 2020).

Reference

Abou-ElWafa, H. S., El-Bestar, S. F., El-Gilany, A., & El-Toraby, E. E. A. (2014). Respiratory

disorders among municipal solid waste collectors in Mansoura, Egypt: A comparative study. *Environmental & Occupational Health*, 69(2), 100-106.

Amos, T. (2019). Caste in Early Modern Japan: Danzaemon and the Edo Outcaste Order. *Series: Studies in the Modern History of Asia*. Routledge.

Boyatzis, R. E. (1998). *Transforming qualitative information: Thematic analysis and code development*. Thousand Oaks, CA: Sage.

Centers for Disease Control and Prevention (CDC). (2020, March 24). [People Who Are at Higher Risk for Severe Illness](#).

Fujii, S. (2019, Jan 15). [Gomi shuushuu no genba kara nagameta nihon shakai \[Japanese society seen from the eyes of a garbage collector\]](#), Nippon.com.

[Gaishutsu jishuku de katei gomi kyuzou, ichiwarizou no jichitaimo \[Household trash increases dramatically with voluntary ban on leaving home, Some municipalities experience 10 percent increase\]](#) (2020, May 12), *Nihon Keizai Shimbun*. Retrieved from

Gordon, J. A. (2017). Caste in Japan: The Burakumin. *Biography*, 40(1), 265-287.

Ivens, U. I., Ebbenhøj, N., Poulsen, O. M., & Skov, T. (1997). Season, equipment, and job function related to gastrointestinal problems in waste collectors. *Occupational and Environmental Medicine*, 54(12), 861-867.

Jordà, O., Singh, S. R., & Taylor, A. M. (2020). [Longer-run Economic Consequences of Pandemics](#). National Bureau of Economic Research (NBER), Working Paper No. 26934. Link accessed May 14, 2020.

[Kokusei chousa Heisei 27-nen kokusei chousa chuushutsu shousai toukei \[Selected aggregate data, 2015 national census 2015\]](#) (2015). e-

[Stat.go.jp \(Portal Site of Official Statistics of Japan\)](#).

[Koube-shi kankyo-kyoku de shuudan kansen ka. Shokuin aratani futari ga shingata korona kansen \[Group infection in Kobe City Environmental Bureau? Two new corona cases among employees\]](#) (2020, April 20), *Sun TV News*.

[Koube-shi no gomi shuushuu tantou no dansei sannin ga korona kansen \[Three men who handle garbage collection in Kobe City infected with coronavirus\]](#) (2020, April 18), *Kobe Shimbun*. Retrieved from

Lasota, A. M., & Hankiewicz, K. (2019). Self-reported fatigue and health complaints of refuse collectors. *Central European Journal of Operations Research*, 28, 633-643.

Lawton, G. (2020, April 16). [Why are men more likely to get worse symptoms and die from covid-19?](#) *New Scientist*.

Ohhori, T., Ikeda, I., Uehata, T., Abe, M., Matsuoka, T., Amano, T., Sasagawa, N. (1986). Low back pain among the garbage collectors and their physical fitness. *Taiikugaku kenkyu (Japan Journal of Physical Education, Health and Sport Sciences)*, 31(2), 163-171.

Oshida, G. (2020, May 21). [Koronaka no nakade atarashii kouryuu ga: Gomi shuushuu ni kansha no tegami zokuzoku \[New interactions amidst the Corona pandemic: Garbage collectors flooded with thank you letters\]](#). *Asacoco*, 187, 2.

Park, D. U., Ryu, S. H., Kim, S. B., & Yoon, C. S. (2011). An assessment of dust, endotoxin, and microorganism exposure during waste collection and sorting. *Journal of the Air & Waste Management Association*, 61(4), 461-468.

Reitan, R. (2012). [Narratives of "equivalence": Neoliberalism in contemporary Japan](#). *Radical*

History Review, 112, 43-64.

Tibbetts, J. (2013). Garbage collection is “one of the most hazardous jobs.” *Canadian Medical Association Journal*, 185(7). E284, doi: 10.1503/cmaj.109-4434

[Tokyo Authority of Waste Disposal of 23 Wards](#). (2020). (東京二十三区清掃一部事務組合).

Tsujimura, H., Taoda, K., & Kitahara, T. (2012). A Field Study on the Physiological Workload of Garbage Collectors in the Japanese Summer. *Industrial Health*, 50, 556-566.

Uchida, H. (2020, May 23). Hansen byo mondai, HIV-AIDs mondai no kyokun kara kansen sho sabetsu wo kangaeru [Understanding discrimination against infectious diseases: Lessons learned from Hansen disease and HIV-AIDs epidemic]. Shingata korona sabetsu wo kangaeru shimpojiumu [Symposium on discrimination and the coronavirus]. The Buraku Liberation Research Institute.

This article is a part of **The Special Issue: Vulnerable Populations Under COVID-19 in Japan**. See the Table of Contents [here](#).

Please also read our previous special **Pandemic Asia** on the impacts of COVID-19 in the larger Asia-Pacific region, edited by Jeff Kingston, delivered in [Part 1](#) and [2](#).

Makiko Deguchi is a professor in the Faculty of Foreign Studies at Sophia University in Tokyo. As a cultural psychologist, Deguchi investigates the impact of social oppression on the psychology of both advantaged and disadvantaged group members, factors that lead people to take collective action, and qualitative research on life histories of people who become allies to minority groups. She is the President of [SIETAR Japan \(Society of Intercultural Education, Training, and Research in Japan\)](#). Her publication includes a translation of *Promoting Diversity and Social Justice: Educating Members of Privileged Groups* (Goodman, 2011) published through Sophia University Press in 2017.

Chie Matsumoto is a journalist and an adjunct media instructor in the Faculty of Law at Hosei University. Matsumoto is also a research assistant in the Graduate School of Interdisciplinary Information Studies at Tokyo University. As a journalist, she reports on labor, gender and social justice issues in Japanese and English. Her publication includes a translation of *China on Strike (Sutosuru Chugoku)* (co-translator, Sairyusha Publishing 2018), and her works appear in books, *Masukomi · Sekuhara Hakusho (State of Sexual Harassment in Media)* (Bungei Shunju Publishing, 2020) and *Burakku Kigyo (Black Corporations)* (co-author, Godoshuppan Publishing, 2013).