**Review Article**

**Retaining the Public Health Professional during the Great Resignation**

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**Abstract**

This article contains opinions on how public health organizations can increased retention rates of public health professionals during the “Great Resignation.” Given the Covid-19 pandemic and its impact on the public health sector, retaining the public health professional is tremendously important. Prior to the advent of Covid-19, public health professionals were deemed important to the overall public health posture. However, with Covid-19 commanding so much attention, public health professionals have been stretched thin towards burnout. This burnout has contributed to public health professionals departing public health for new careers, thus contributing to the “Great Resignation.” To ensure the viability of public, the retention of public health professionals needs to be a priority. This article explores the Great Resignation impact on public health and how public health professionals can be retained to sustain industry readiness.

**Keywords:** Covid-19; Great Resignation; Information Technology; Pandemic; Public Health

**Introduction**

For public health professionals, dealing with a pandemic is one of their essential purposes. It demands focus on identifying the applicable vector for research and analysis, leading (hopefully) to eliminating the vector or the creation of a vaccine for contagion control. The environment to which public health professions deal with is mercurial, thus calling for adaptability to each situation so societal fear reduced. As provided by Harper, et al. [1], the function fear from the Covid-19 pandemic, has created a tremendous body of literature and research for mitigation efforts. Through the application of public health professionals, addressing the Covid-19 pandemic was challenging to ensure necessary protocols were followed, thus impacting Covid-19 morbidity and mortality rates. The work provided by public health professionals often goes unsung and is often obscure, and similarly to running water in a residence, you never realize its impact until you do not have it. Well, for the public health sector, the Covid-19 pandemic exposed human resource issues that must be addressed, as the Great Resignation incorporates public health professionals.

 When public health professionals start their careers, they certainly do not look forward to a pandemic. More often public health professionals seek to improve societal health, while obtaining a decent salary, conduct research and have a distinguished career. There are the long nights and exhausting work to which may or may not lead to a societal breakthrough. It is through tireless activities where public health professionals reach a point in their careers where they contemplate switching occupations. Causation of the public health professionals contemplating departure has received appropriate attention and rightfully so; however, with Covid-19 and the Great Resignation in play, the departure of public health professionals has shined the preverbal spotlight on this urgent need. With the rapidly declining number of public health professionals working towards a solution to retain this talent pool, the Great Resignation, and the Covid-19 pandemic, compounded this issue that, last checked, potentially could place American and global societies in peril.

The issue of ensuring the public health sector has enough professionals to deal with public health issues rarely hits mainstream newswires; however, having enough qualified and capable workers is an integral part of the national and global public health system [2]. Moreover, through the pandemic undergoing case fluctuations, a manifested spike in cases potentially could increase strain upon the public health industry, thus placing American society back in the recently departed situation. The global Covid-19 crisis inevitably changed public health job satisfaction, perception, and insecurity to which was not as prevalent prior to Covid-19 [3]. This article addresses public health industry concerns regarding retaining public health professionals post covid-19 and amongst the Great Resignation, while also providing guidance on what can be done to prepare for the next public emergency.

**Why Don’t We Have Enough Public Health Professionals**

As the topic of the Great Resignation arises in conversations, the one thing to be noted is the lack of public health professionals prior to Covid-19. Like other professions that were stretched thin during the height of the Covid-19 pandemic, occupational demands “led to significant levels of stress, burnout and symptoms of depression and anxiety” [4]. Moreover, the associated Covid-19 work environments experienced by public health professionals reinforces the need for increased recruitment and retention as recent estimates indicate as much as 42% of governmental public health employees are considering leaving their positions [2]. According to a study by Yeager, et al. [2], leading statistical recruitment data indicated at Standard Deviation (SD) range or 4.26-6.90 for all public health professionals. Areas of emphasis include organizational factors: Specific work functions, job security, schedule flexibility and innovation. On the low end of the data spectrum, Yeager, et al. research data indicated personal factors such as: opportunity for advancement and ability to telecommute [2]. Although this study was conducted prior to the Covid-19 pandemic, it serves as a barometer for public health organizations seeking to resolve its personnel problem. Thus, with increases of public health worker hirings, incentives, retention efforts, shortages are still present, and Covid-19 and the Great Resignation have intensified the declination trend.

The nature of Covid-19, with its high level of contamination, transmission, death, and an overall lack of understanding of impact, the creation of an environment of uncertainty and fear among public health professionals [5-7]. The spreading of Covid-19 appeared on the world so fast, governmental agencies and public health professional became overwhelmed and either implemented inadequate measures or were forced to develop new solutions to address the Covid-19 pandemic. Moreover, generalized infection of hospital work environments was linked to hospitalization of both symptomatic and asymptomatic patient infections [6].

The environment created by Covid-19 directly correlated to risk factors associated with transmission rates from patients to public health professionals. Insufficient Personal Protective Equipment (PPE) supplies and measures that increased infection rates through poor training, structural inadequacies and poorly administered administrative policies, significantly contributed to the situation. According to research by Lotta, et al., “One situation in Brazil had 41,164 cases and 449 deaths among nurses, representing about 30% of all deaths of nurses from Covid-19 worldwide”. Given the situation in Brazil, it served as an effective information source to support the situation facing public health professionals. Brazil has a large population and calls for a large public health workforce, but with one caveat…Brazil does not have the technological advances utilized in the United States. Nonetheless, public health professionals needed to understand the severity of the Brazil Covid-19 outbreak in that such an impact on such a large western-hemisphere population forecasted what would eventually occur in the United States.

With the impact of Covid-19 in American and nations around the globe, addressing the insufficient amount of public health professionals can be summed up through a well-known statement made by British statesman and former Prime Minister Sir Winston Churchill, “those that fail to learn from history are doomed to repeat it.” The collective world has performed miserably in failing to learn from our history of public health emergencies and one such example is the 1918 Spanish Flu pandemic. Through the historical account of the First World War, the tremendous number of deaths associated with this conflict are often thought of having the highest death toll of the period. However, this is not the case and as articulated by Bergen V [8], military medicine professionals were equally impacted by the Spanish Flu than war casualties. The Spanish Flu is attributed to “more Americans being buried in France from the Spanish Flu than enemy fire and the Meuse-Argonne offensive coincided with the second wave of the pandemic, which ran its deadly course for about eight weeks” [9]. The significance of the Meuse-Argonne offensive is that it contributed to the largest number of casualties in WWI and the 1918 pandemic killed about 45,000 American soldiers” [9]. The fact that so many casualties resulted from WWI from the Spanish Flu, coupled with the impact upon military and public health professionals during that time, one could validly ask: Why have public health professionals failed to learn from historical events that killed so many people? Given the historical circumstances, since public health professionals did not learn from the Spanish Flu pandemic and essentially repeated history with Covid-19, it is safe to say that public health professionals will not learn from the tremendous loss of public health professionals from the Covid-19 and the Great Resignation combined.

**Insufficient Funding for Public Health**

On its surface, appealing to the demands of public health professionals appears to be a resolution to the issue. Through creating more positions, increasing salaries, and making public health positions more appealing, one could surmise recruitment and retention statistics would eventually balance; however, this is not the case. One thing the Great Resignation identified is that employees are tired of corporations and organizations generating tremendous profits, while treating their employees like second class citizens. Organizational perspectives towards public health professionals serves as an additional primer to employee turnover. For organizations to invest tremendous revenue, time, and materials into the development and advancement of public health professionals, then discard their perspectives and employment once employees verbalize their desire for incentives or training is not cost effective. There are consequences associated with employee turnover, impacting direct recruitment as a replacement for someone that could have been retained with the right amount of effort [10].

While there are speculative reasons as to how Covid-19 spread so fast (especially in the U.S.), the lack of funding support for public health surely contributed to a slow public emergency response. Local, state, and federal public health programs have been consistently targeted for budgetary cuts, limiting public health functions [11]. Historically, funding source shortcomings have impacted the delivery of essential public health services, as well as impacted preparation for such emergency situations. Additionally, public health funding streams categorical, or restricted to priority areas (e.g., HIV, tobacco control, etc.), creates inflexible spending to support essential capabilities [12]. Additionally, funding sources stemming from public block grants exposes public health budgetary cut vulnerabilities and on average, public block grants have decreased over the last 20 years [13].

As public health agencies continued to struggle in securing funding, the consistent drip of the funding-cut IV, has led to a 10-17% reduction between 2002-2018 [14,15]. Then came Covid-19 and the public health employee situation reared its ugly head and despite the seriousness of Covid-19 addressed by public health organizations. One could logically surmise that funding public health organizations is an essential part of ensuring the U.S. democracy is sound for years to come. Nonetheless, this is not the case and instead of placing public health at the top of organizational priorities enhancing its importance, public health is treated like a political football tossed to the political party or politician that uses it for leverage.

Funding not only impacts the public health industry and its professionals, but it also influences the research needed to reduce or eliminate future public health emergencies. Contrary to the countless commercials regarding treatment for HIV, it is still a major issue in the U.S. and globally. The groundbreaking treatments that have afforded longer lives for those with HIV, is largely attributed to public health professionals and the research they conduct. Despite recovering from the worst financial crisis since the great depression and the rise of Covid-19, the urgency of public health funding still misses the mark.

Therefore, to ensure the U.S. public health infrastructure is dependable, and adaptable to a multitude of public health emergencies, it takes more than wishful thinking…it requires collaborative work, planning and most importantly, increased funding. Public health is already expensive to establish and maintain, however, to ensure we are prepared for the next serious public health emergency, local, state, and federal government agencies need to consider public health as an essential part of overall public safety and not a place to look on the budget whenever funding needs to be cut.

One such approach to ensuring public health funding sustainment, is utilizing a fundamental cause approach which would resolve the issue while requiring significant changes. According to Fleming, et al. [16], funding public health is a paradox that involves two essential ways: “(1) the government spends substantial amounts of money on policies that have been shown to harm health, and (2) policy-driven deprivation of critical resources causes harm to population health. Although we narrow our analysis to a spending/deprivation binary, poor and marginalized communities are often simultaneously experiencing spending on both harm and deprivation”.

If public health officials and organizations were to address the issue of funding, without question, it will cause tremendous consternation. To that end, it is something that must occur to ensure public health professionals and organizations are satisfactory funded and prepared for the next public health emergency. To ignore the importance of this task establishes professional malpractice that impacts the collective health of the public.

**Public Health Infrastructure**

One such contributor to insufficient funding in public health is the public health infrastructure, or a lack thereof. As public health ailments increased and resolution needs accompanied them, “The creation of public health authorities in support of public health improvements reduced morbidity and mortality rates from infectious diseases such as typhoid and cholera” [11]. The lack of an adequate infrastructure forced societal and governmental organizations to create programs “to improve the prevention and management of chronic diseases (e.g., cardiovascular disease, cancer, etc.), leading to advancement of healthy societal condition” [11,17]. Nonetheless, like other situations to which society has failed to learn from history, reports from the Institute of Medicine focusing on the public health infrastructure, indicated “the U.S. public health infrastructure was in disarray as of 1988 and is still in disarray today” [18].

All the news regarding the U.S. public health infrastructure is not all bad. Starting in 2000, “the federal government commenced improving the public health infrastructure through the Public Health Improvement Act of 2000, which included developing and implementing national preparedness” [18]. The action of addressing public health inadequacies entailed state and federal government health system infrastructure, facilities, and capabilities to the collective sum of an initial $1.1 billion, to $1.4 billion for the Centers for Disease Control and Prevention (CDC) and the Health Resources and Services Administration (HRSA) [18]. Conversely, like almost every government appropriation measure, the approved amount of funding was constantly reevaluated and scaled back through budgetary reductions. Public health infrastructure(s) serve more than the system and buildings in that a lack of appropriate infrastructure for public health measures creates a serious vulnerability for the U.S. collectively.

U.S. public health infrastructure is systematically structured for all components intertwined to perform core function and services effectively when strengthened and reinforced through public and private entities. Conversely, when weak, inconsistent, or deficient, the system’s capacity to function is at risk [18]. Through performing a 10-step process, public health organizations can assess any situation. These steps include:

1. Assess the health needs of the community by establishing a systematic needs assessment process that periodically provides information on the health status and health needs of the community.

2. Investigate the occurrence of adverse health effects and health hazards in the community by conducting timely investigations that identify the magnitude of health problems, duration, trends, location, and populations at risk.

3. Analyze the determinants of identified health needs to identify etiologic and contributing factors that place certain segments of the population at risk for adverse health outcomes.

4. Advocate for public health, build constituencies, and identify resources in the community by generating supportive and collaborative relationships with public and private agencies and constituent groups for the effective planning, implementation, and management of public health activities.

5. Set priorities among health needs based on the size and seriousness of the problems, the acceptability, economic feasibility, and effectiveness of interventions.

6. Develop plans and policies to address priority health needs by establishing goals and objectives to be achieved through a systematic course of action that focuses on local community needs and equitable distribution of resources and involves the participation of constituents and other related governmental agencies.

7. Manage resources and develop organizational structure through the acquisition, allocation, and control of human, physical and fiscal resources; and maximizing the operational functions of the local public health system through coordination of community agencies' efforts and avoidance of duplication of services.

8. Implement programs and other arrangements assuring or providing direct services for priority health needs identified in the community by taking actions which translate plans and policies into services.

9. Evaluate programs and provide quality assurance in accordance with applicable professional and regulatory standards to ensure that programs are consistent with plans and policies and provide feedback on inadequacies and changes needed to redirect programs and resources.

10. Inform and educate the public-on-public health issues of concern in the community, promoting an awareness about public health services availability, and health education initiatives which contribute to individual and collective changes in health knowledge, attitudes, and practices towards a healthier community [19,20].

Through application of the 10 steps, public health professionals utilize the public health infrastructure to seamlessly address all public health issues. It is vital public health standards are adhered to for the primary goal of quality improvement, accountability, and public health safety [21]. Therefore, to ensure public health institutional standards remain solidified, effective management of the public health infrastructure must be strategically applied. To accomplish this important task includes the inculcation of Information Technology (IT) as a part of the infrastructure.

**Information Technology**

Without question, the public health infrastructure is an essential element leading the way for public health professionals to address the critical public health issues of our time. However, to accomplish this task, ensuring the infrastructure is sound is paramount. An essential part of the infrastructure that often goes unchecked is Information Technology (IT) aspect of the infrastructure. The Covid-19 pandemic is the largest public health emergency since the 1918 Spanish Flu pandemic, and in similar fashion, the number of casualties from each indicated its severity. Conversely, the casualties from Covid-19 had an additional factor concerning IT that increases the infrastructure importance.

Unlike historical public health emergencies, the need for a robust IT infrastructure to support the overall public health infrastructure was exposed through the rapid spread of Covid-19. As critical questions were asked and patient numbers increased, “the need for timely, accurate, and reliable data about the health of the U.S. population has never been greater” [22]. For public health professionals and its infrastructure, the Covid-19 pandemic and its effect worldwide proved monumental to global public health operations and managing the thirst for more and more data was an enormous task [23]. Primarily, the need for a vigorous IT infrastructure is the current one is “unarguably overdue for a real-time, technology-driven, surveillance and reporting infrastructure to respond effectively to public health emergencies [22].

Additionally, on top of managing the copious amount of data associated with the Covid-19 pandemic, ensuring the public was provided with sound, accurate information was equally important. Through rapid spreading of Covid-19, the ability to obtain and disseminate information on hot-spots, mask availability, testing, and vaccination sites proved essential to reducing morbidity and mortality rates. To that end, organizational and state sponsored bad actors and cybercriminals were prevalent and spread misinformation about the pandemic and logistical and operational information [24]. If public health IT infrastructure is not effective enough to reduce or prevent cyberattacks from impacting public health systems and networks, essential data is subject to deletion, corruption or even worse, held hostage by a Ransomware attack. Moreover, the integrity of the information risks compromise, hence potentially jeopardizing the validity of any Covid-19 research information and eradication solutions.

The utilization of obsolete technological platforms by public health professionals and organizations limits the effectiveness of public health entities. As technology advances, resistance to updating networks and systems to facilitate public health data sharing and transfers continues to increase [11]. This lack of adjustment “slowed the public health response on many occasions concerning Covid-19 [11]. Furthermore, individual, and organizational apprehension created a tortoise-like response that revealed public health IT infrastructure vulnerabilities. Therefore, to ensure public health is ready to address the next public health emergency, modernizing their IT networks, systems and overall infrastructure requires strategic alignment with organizational and societal priorities.

The strategic alignment process requires reviewing and consideration of 21st century digital infrastructure capabilities [11] and last checked public health officials-initiated efforts to resolve systematic deficiencies. Back in 2000, the U.S. Congress “recognized the importance of building organizational capacity through the Frist-Kennedy Public Health Threats and Emergencies Act of 2000, which highlighted the need for increasing public health IT infrastructure funding” [18]. However, since the advent of Covid-19, issues with the public health IT infrastructure have not been resolved effectively.

The Covid-19 pandemic exposed the soft-underbelly of the U.S. public health IT infrastructure in many ways. As Covid-19 rapidly spread among societies across the globe, public health organizations faced pressure to adopt their IT systems to accommodate increased remote video-conference services and data storage [23,25]. Exposing the lack of readiness of public health entities revealed insufficient capacity to provide baseline data storage and lacking scalability measures. Moreover, the Covid-19 pandemic called for the sharing of data and information to various organizations, municipalities, states, and countries, hence exposing organizational interoperability issues.

Addressing the issues associated with the IT infrastructure portion of the U.S. public health system demands constant attention. This attention goes beyond reactionary measures, (such as demonstrated in responding to Covid-19), it requires a robust public health IT infrastructure like that employed by large organizations that manage large amounts or data and personnel information (e.g., Department of Defense, Citibank, TransUnion, etc.) [26]. Hence, like the other areas of public health, the main trend associated with public health is funding and the IT infrastructure portion is not exempt. It demands consistent investment that builds organizational and industry preparedness that will be negatively measured by the number of patients contracting Covid-19 (and other ailments) or network and system cyberattacks. Through increased funding, robust IT infrastructure measures, and strategic management alignment, public health IT infrastructures can be prepared to face the next public health emergency [27].

**Impact of U.S. Preparedness**

The U.S. public health infrastructure (contrary to many beliefs) contains an overarching framework. This infrastructure is only a part of the overall infrastructure, which includes: the workforce competencies, the communication and information systems and the organizational capacities. According to Baker, et al. [18], “The U.S. public health infrastructure is inclusive of public and private sector entities that function independently and in partnership”. At the top level of the infrastructure resides all the associated public health services (local, state, and federal). The next level provides public health surveillance, laboratory practices and epidemic investigation activities. At the broadly supported structure of the overall process resides the information and knowledge systems, public health workforce and organizational capacities [18].

Within the body of the infrastructure, each level is essential to the overall mission of the infrastructure and independent upon professionals performing at a high level. As each aspect provides sounds strength to the process, so too does it become impacted when one or more parts are weakened, and it is the U.S. system’s capacity that is at risk. The threats facing the U.S that impacts a public health organization(s) ability to respond to an emergency such as the Covid-19 pandemic. As Covid-19 continues to impact American society, there are “serious and constantly evolving threats face the health of Americans. These include a major burden of chronic disease and disability” [18,28]; “injury and illness due to occupational and environmental hazards; infectious diseases, both familiar and newly emerging; threats related to terrorism; and other preventable problems” [18,20].

Historically, U.S. preparedness is largely attributed to prevention strategies falling within the domain of the nation’s public-sector, population-oriented health agencies. The vigor and effectiveness of these agencies continue to be important factors in the nation’s health because some of the twentieth-century threats to health have returned or persist, and emerging threats will require similar prevention strategies of these same agencies [29]. However, to ensure the public health industry and profession is prepared for potential outcomes requires taking a detailed look at itself. Through the public health research lens, the outcome of industry analysis and Covid-19, the summation of public health indicated a lack of readiness. When examining the term readiness, as applied to public health, it is more than just stocking up and storing PPE in warehouses (although that was inadequate as well), it demands a comprehensive review of the professional from top to bottom.

For countless years, whenever the topic of emergency readiness arose, the consensus response was the U.S. was ready to face a public health emergency. With healthcare and public health organizations conducting emergency preparedness exercises to test requirements for emergency response, the outcomes pacified public official and citizens alike in thinking we were ready; however, this was not the case [30]. The ongoing Covid-19 pandemic highlights a lack of importance placed upon public health safety and shifts it towards systematic failure of emergency preparedness [31].

To ensure public health emergency readiness, emphasizing the emergency and not the political environment is paramount to the strategic management of any public health emergency. Such an example is the anorexic pandemic policy established and dismantled by U.S. political actions. After attempting to prepare for potential public health emergencies through creating and implementing the Office of Pandemics and Emerging Threats within the U.S. National Security Council, the office was disbanded prior to the advent of Covid-19 [32]. This action (although thought to be beneficial for saving revenue), has proven to be a significant contributor to the spread of Covid-19 in the U.S.

For scholarly professionals and researchers, making a statement of definitive causation towards an organization, action, or individual is thought to be unproductive and speculative at best. However, without question, having an Early Warning process to address U.S. public health emergencies is always a good thing in that it serves as an opportunity to minimize potential casualties. Other countries around the world implemented disease outbreak systems to ensure they would be able to address public health emergencies early to minimize impact and as previously provided, the U.S. was among those countries. However, after the Office of Pandemics and Emerging Threats was shut down, the created vulnerability was quickly exploited by Covid-19.

Addressing Covid-19 quickly, Singapore, Taiwan and Hong Kong enacted their individual disease outbreak systems and last checked, are still in-place. However, according to Khanna, et al. [33], “countries in Europe (Italy, Spain, UK) and the U.S. delayed implementing containment measures and failed in anticipating the impact of the pandemic in their own boundaries”. One can deduce that having a rapid response system would have impacted the effect of Covid-19 on the U.S., but the world will never know. Nonetheless, preparedness involves more than just an office to address the public health emergency, it means having the ancillary equipment (ventilators, beds, masks, etc.) and Personal Protective Equipment (PPE) utilized by public health professionals when they deal with highly contagious vectors. Possessing these ancillary materials and equipment and strategically locating them throughout the U.S. would prove prudent to quickly react to a public health emergency. Conversely, the U.S. did have stockpiles; however, the supplies were inadequate at best and woefully lacking to address the magnitude of Covid-19 [33].

In response to the overall impact of Covid-19, the U.S. has been duly informed on the seriousness of this contagious vector and hopefully, effective measures put in place will remain for the foreseeable future [33]. Let us not naive and think that political forces in the U.S. will not have an impact on responding the next public health emergency and ultimately the nation’s readiness. If public health professionals were adequately prepared to execute a vetted pandemic response plan, it would had enabled systematic tracking of the virus’ speared and adjusted pans accordingly. Moreover, when the focus is precisely on preparing for the next public emergency, and not on the internal and external influences countermanding readiness and effectiveness, then when the emergency occurs (and it will), the U.S. will be better prepared to ensure its impact is greatly reduced.

**What is the Great Resignation?**

Since the manifestation of the Covid-19 pandemic, the U.S. economy moved positively towards stabilization. The once high unemployment percentage rate, returned to acceptable levels and despite the impact of Covid-19 upon the U.S. labor market, the economic positivity included a lack of available workers [34]. Consequently, with Covid-19 subsiding in almost all areas of the U.S. and the world, and the U.S economy rebounding, there was a lack of available works to fill the positions left vacant by the Covid-19 lay-offs [34]. The Great Resignation, coined by many but simplified in this case by Birinci [34], is the “idea that since the economy is recovering, large numbers of works have quit their jobs”. It is the impact of the mass resignations that is considered detrimental to the economy indicating the possibility that people may not work anymore. Through the effect of Covid-19 and in some cases, being unemployed with their positions being permanently eliminated, many individuals in the U.S. took it upon themselves to reevaluate their role in the workplace and the world. The impact of Covid-19 provided many workers with the opportunity to make a change in their employment and obtain what they wanted instead of settling for what the corporate world required of them. For public health professionals, this was no different except with on essential caveat…public health professionals were the ones who were supposed to ensure society in general was free of Covid-19. Nonetheless, this was not the case and public health professionals made a mass exodus like other workers and many chose not to return.

The departure of public health professionals from an industry that considered them, essential workers, was due to numerous contributing factors, that of which was a general level of contempt and disrespect. Public health professionals were faced with tremendous challenges when called upon to work extraordinary hours under highly stressful conditions, while dealing with fewer personnel [35]. Additionally, coupled with the multitude of circumstances supporting workers not returning to work, was a lack of job security, toxic climate, and reduced compensation for hazardous work (if any). In some cases, public health professionals, while suffering from burnout from the countless hours and shifts working to save lives, were threatened with violence, or even terminated because they needed time to rest.

In one such situation, a public health professional in the State of Colorado, who directed a county public health department, was “working 12- and 14-hours days, struggling to respond to the pandemic with only five full time employees for over 11,000 residents while Covid numbers continued to increase. Despite her efforts and pressure to provide information, threats were made towards her and her team referencing armed citizens and bodies swinging from trees. When she asked for support from her supervisors regarding the threats during a meeting, she was fired” [36].

The treatment of public health professionals coupled with the stress and pressure to address the demands that Covid-19 has placed upon the public health workforce is more than a fad. It is serious enough that historical treatment of public health professionals will no longer be enough. Given that approximately 75% of the U.S. workforce are employed in occupations considered to be lower-paid, employers should understand their vulnerability to mass employee resignations due to occupational demands [4]. The suggestion that workers are bound to their current employment has been quickly reevaluated from the increased number of employee resignations. Satisfaction with the current job, availability of jobs, job switching intention and alignment (or a lack thereof) with their bosses or supervisors are the common reasons for employees to leave an organization [10], while increased frustration with working conditions during the pandemic, ranging from the lack of protective gear to virtual micromanagement or the impossibility of combining work demands with their children’s remote schooling” [4] are additional contributing factors.

Additionally, a significant factor that a lot of the older working class tends to forget is that the current U.S workforce is at (or near) the point of retirement and younger workers will be needed to sustain economy. Historically speaking, the Baby Boomers as articulated by Lancaster [37] encompass individuals who were “influenced by the booming birthrate. So, they were called as baby boomers and influenced by war protests, human rights “Water gate’, Vietnam, and the slayings of MLK, and Kennedy [38]. They were driven by power, competition and understood life is a game. Conversely, the generation taking over the workforce are Millennials and Generation Z who are more concerned with society meeting their demands or being rewarded according to their standards for their hard work, which is opposite of Baby Boomers.

Primarily, the Baby Boomer generation is focused on an organizational perspective and conforming with all aspects of the organization; conversely, the Millennials and Generation Z are the opposite and will inherit the workplace, thus demand society adjust to their wishes and have understood via the Great Resignation that if society is not switching to meet their accommodations, they will not work for organizations that are not concerned with their needs. Additionally, “core values, especially visible in the working environment, include respect, recognition, continuous development, fairness, tolerance, equity and is not mainly money-driven, whereas values play a more significant role for them in the workplace opposed to salary”.

Now that we have identified some focal points of the Great Resignation, American society needs to understand that historical processes concerning workers is in rapid change…and is inclusive of public health. Therefore, public health organizations and professionals need to understand the current situation and understand that their traditional methods or recruitment and retention are just that, historical. The world was forever changed from Covid-19 and so the public health industry has been impacted by Covid-19 and by public health professionals. If the public health industry is unable to effectively recruit and retain public health professionals, then the current public health situation will become increasingly more worrisome.

**How Do We Retain Public Health Professionals?**

The forecast for public health professionals remains depleted, which has remained since the turn of the century. According to Rosenstock, et al. [35], the issue concerning a lack of public health professionals is something the industry has known about but has yet to effectively address. In the United States (U.S.), “more than 50% of states cite the lack of trained personnel as a major barrier to our nation’s preparedness” [39], which given the recent Covid-19 pandemic, continues to plaque the U.S. public health industry. Moreover, an additional impediment to retaining public health professionals is projected retirements. As of the time the Covid-19 pandemic began to consume the world’s attention, an estimated shortage of 250,000 public health personnel was projected [35], further adding fuel to the already existing fire.

For every organization, employee turnover is a serious problem and it goes without saying that public health is not exempt. The impact of public health employee resignations impacts the overall readiness of the U.S. system, and it has been a known fact prior to the Great Resignation. Since prior to 2015, the public health industry has continued to be impacted by a shortage of workers. The World Health Organization (WHO) “estimates 4.3 million more health workers are required to meet public health goals” [40], which is miniscule compared to what is presently needed. That said, with the awareness of need for public health workers, the question that arises is: What has been done to address this shortfall? The case for addressing the worker deficiency has been and continues to be a topic of concern, however, with the Covid-19 pandemic still an emphasis and its impact upon current public health workers, the need to address this issue becomes increasingly urgent and has been on display in fighting Covid-19.

One action to reduce employee turnover in public health is to address what Hardin [41] articulates as The Tragedy of the Commons-the population problem that has no technical solution and requires a fundamental extension in morality [41,42]. Furthermore, the issue of reduced workforce numbers has “forced the public health sector to act in the best interest of their organization to support the public good” [42]. Through addressing the population problem of insufficient public health workers, the public health workforce is strengthened with a workforce that can face the Covid-19 pandemic from a reactional perspective to a proactive one.

An additional measure to retain public health professionals is to create industry and organizational partnerships with higher education institutions. When public health professionals usually obtain their credentials, they usually acquire them from some form of higher education (e.g., university, community college, technical college, etc.) and through establishing partnerships, public health professionals and their educating institutions work collaboratively towards ensuring their preparation is geared to industry demands. Additionally, acquiring knowledge and education through professional education programs needs to be part of the process [43]. Public health workers need to be able to also acquire hands-on experience so they can enter the field with the experience for success. For example, according to the Council of State and Territorial Epidemiologists (CSTE), indicates that most epidemiological professionals lack formal field training and experience, while in the largest public health workforce group (nurses), their entry-level education depends upon their program and may only enter the field with minimal clinical experiences linked to program requirements [18,44].

Furthermore, unlike public health learning of the past, formal education is not enough to demonstrate proficiency. Almost every public health professional occupation has an industry board or council that has developed a competency-based credential whereas professionals can obtain and demonstrates their proficiency [45]. When public health professionals do not obtain graduate, post-graduate or advanced education and training or certification, they are relegated to low salary positions. When this occurs, an estimated 44% of public health workers fall into this category and eventually obtain employment in local and state public health departments which are impacted financially through politically impacted budgets [44].

As the public health industry continues to reside at the precipice of the insufficient public health worker catastrophe, the collective good of the industry needs a reckoning. This reckoning should be one that advances the urgency concerning the lack of public health workers. Already, the alarm has been sounded for those hard to acquire professionals (physicians, nurses, researchers, etc.); however, it is not enough. More needs to be done to recruit more workers and more to retain the workers presently within the industry. One such approach calls for the U.S. government to regulate the recruitment of public health professionals and I can certainly understand the perspective of having government officials taking a more active approach to resolving this issue. However, with everything associated with the federal government, procedure actions tend to convolute the process, thus adding to the problem. Nevertheless, regardless of what entity (if any) becomes involves or a resolution is created and implemented to solve this crisis, the underlying issue is that public health professionals are needed most urgently, and the Covid-19 pandemic made that abundantly clear. The key to all of this is what action will be developed to ensure we retain public health’s most valuable resource…its people.

To address the issues associated with public health professionals and the Great Resignation, public health professionals need to be proactive and candid in their approach. One thing discovered from the Great Resignation is that if healthcare organizations intend to continue past practices concerning public health professionals, there will be tremendous challenges in attracting and retaining workers. The days of succumbing to organizational endeavors and viewpoints without employee consideration leads to insufficient workers in an industry on high demands. Some essential areas of concern are worker health and safety;

**Conclusion**

The Covid-19 pandemic has provided a shock to the collection body of public health. This shock served either as a wake-up call to what should be done or an inditement of what has been done. Nonetheless, addressing the issues identified through this action highlighted that pubic health professionals necessary where the rubber meets the road. The Covid-19 pandemic made all public health organizations in the U.S and throughout the world pay attention to every aspect of their public health infrastructure [46] and with the increased awareness public health professionals should regard Covid-19 as a significant adversary.

Through understand Covid-19 is serious, making critical decisions towards the betterment of society need to be made. There are three essential things that need to be made for public health organizations and professionals to be prepared for the next public health emergency: (1) review and adjust public health organizations recruitment and retention measures; (2) evaluate and adjust public health emergency readiness and processes; (3) prepare and train for the next public health emergency. The combination of these three areas can assist public health professionals in making difficult decision towards building depleted trust in the public health industry. The rationale for rebuilding trust in public health organizations and professionals is that there were so many political affiliations with Covid-19, it was challenging at best to establish what was/was not valid [22].

During the height of the Covid-19 pandemic, public health professionals (also known as essential workers), were placed in situations where the public and their organizations demonstrated willful lack of compassion or support for public health workers [22,47]. The lack of compassion towards the wellbeing of public health workers stimulated actions leading to the Great resignation, but it was not solely responsible. The Great Resignation exposed a lack of employer outreach, recruitment and retention, to include establishing a streamlined approach to the latter [48]. For addressing the first essential, public health organizations and senior personnel need to adjust their mindset regarding he importance of public health workers. According to Pappa [49] the situation of healthcare workers concerning the demands of treating COVID-19 patients lead to significant levels of stress, burnout and symptoms of depression and anxiety among this group. In addition, for public health professionals to remain a part of this important industry, changing the way they lead is essential to success. The nature of the workplace and workforce has changed from Covid-19, hence public health leadership needs to change as well [50]. Understanding the changes Covid-19 has placed upon society, coupled with the new formed environment, equates to a different perspective concerning public health works that has forever changed.

The next area of emphasis is addressing the readiness of vital public heath organizations and infrastructures. As the world ushered in a new normal, being prepared brought on a new meaning. With the emergence of multiple pathogens with pandemic potential, including H1N1, SARS, Ebola, and Zika, renewing a commitment to addressing real-time surveillance, surge capacity, training and responsiveness, coupled with more than adequate funding for public health emergency response means requires establishing a more permanent presence in public health agency funding [51,52]. It also involves addressing essential elements of the public health infrastructure, to include IT networks and capabilities. Public health organizations need to ensure they are capable of addressing 21st century issues. It calls for establishing public and private partnerships that address organizational and industry technical gaps, while building up capabilities to deal with large scale, pandemic emergencies [11]. Gone are the days of pre-Covid-19 public health status in that the work has changed so much, remaining with the status quo means setting public health workers, organizations and society in general, up for an immense failure.

Finally, once all the issues of concern public health worker recruitment & retention; and addressing public health organization and infrastructure, then moving towards increased preparedness is paramount. For public health officials to efficiently and effectively respond to and control and public health emergency, it requires and training and practice. All essential elements of a well thought out public health emergency plan, involves the public health industry at all levels. Since public health workers are, again, considered essential workers, which are considered high demand, they are less likely to have labor protections opposed to other occupations (be granted fewer labor protections [53-55]. Thus, reversing the perspective associated with public health workers must be part of the training and preparedness aspect of bringing change to public health. Having the resources to apply to public health emergency situations is only part of the process, there must be training and scenario driven activities regarding a variety of situations to truly be prepared for the next emergency.

Ultimately, to address the issues associated with retaining public health workers, it requires more than just providing incentives, salaries and promises; it calls for all aspects of the public health system to review and consistently address issues that public health workers deal with. It demands considering the health, safety and longevity of public health workers because without them on the front lines, then the entire public health industry and society in general becomes vulnerable to any level of public health emergency.

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