Public health professionals are responsible for ensuring the health of the nation, which requires that planners for public health emergencies recognize that not including protection for underserved or marginalized communities poses a risk to the entire population. To assure the protection of these populations in the event of a pandemic outbreak, preparedness planning will benefit from the application of several principles of social justice in assuring the protection of all individuals. This article will review the history between public health and social justice, provide a brief review of pandemic preparedness planning efforts, discuss the importance of and make recommendations for the incorporation of principles of social justice in the development of pandemic preparedness plans, and highlight some of the challenges faced by public health in effectively and equitably meeting its charge to protect the nation’s health.

KEY WORDS: ethics, humans, influenza, influenza in birds, public health practice, social justice

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Background

Public health and social justice

Modern public health, as currently practiced in industrialized nations, was created by and through empirical observations by scientists of the mid-19th and early 20th centuries in Europe and America. In 1842, Edwin Chadwick presented to the British Parliament the Report on the Sanitary Condition of the Laboring Populations of Great Britain, which led to the Public Health Act of 1848. His main goal was to reduce taxes paid by wealthy citizens, taxes used in part to support welfare for the poor. According to Chadwick, poor living conditions lead to foul odor, which led to disease. The presence of disease caused the premature death of workers and created the need to support widows and orphans by taxes on the wealthy citizens of Great Britain. Chadwick was not concerned about the struggles or sufferings of the poor—just the financial burden on the wealthy. Based on Chadwick’s recommendations, the Public Health Act of 1848 required sewers to drain waste away from houses and provided clean, rubbish-free paved streets and clean drinking water. Current emphasis on Market Justice in the United States echoes Chadwick’s doctrines, committed to increasing

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wealth among the wealthy and blaming poor health outcomes, notably in the disadvantaged, primarily on their own behavioral failures and deficiencies. “Market Justice emphasizes individual responsibility, minimal collective action and freedom from collective obligations, except to respect other persons fundamental rights.”

The views of Rudolph Virchow in Germany and others in mid-19th century Europe contrasted sharply with the views of Chadwick and his supporters. Virchow saw the same situations at the same time as Chadwick, but interpreted the causes of the excessive morbidity and mortality of the industrial working poor to their social conditions. In 1848, in a report to the German government, Virchow recommended far-reaching reforms to improve the conditions of the workers, which included adequate and available education, democratic self-government, housing reform, and the introduction of sensible and sound institutions which will stimulate commerce, increase individual wealth . . . and guarantee the worker not only his existence, but a chance to shape it through his own work.”

With this history in mind, practitioners of public health both ignored social justice and fully incorporated social justice in foundational principles. Thus was born a connection between social justice and public health, as well as an alternative view, with public health part of a healthcare system that focuses more on disease treatment, rather than on root causes. Nancy Krieger envisions three approaches: corrective justice, as well as procedural justice, involved with both.

Distributive justice concerns the division of shares in social benefits and burdens. In the realm of distributive justice, implementing fair procedures is a matter of setting down rules that everyone should follow in acquiring and transferring goods. Many believe that following certain rules of allocation will lead to the fairest distribution of wealth.

For a better understanding of distributive justice from different points of view, Lawrence Solum mentions three approaches:

1. Rawls’s theory, *Justice as Fairness*, which includes two principles of distributive justice. The first principle guarantees every citizen a fully adequate scheme of equal basic liberties, such as freedom of conscience, the right to vote, and so forth. The second principle (the “difference principle”) requires that inequalities of income and wealth work to the advantage of the least well-off group in the society.

2. Strict egalitarianism does not permit differences with respect to whatever good is referenced, for instance, wealth, income, welfare, or the opportunity to acquire these things.

3. Libertarianism holds that the distribution of wealth and resources is not itself a proper subject matter for justice. Rather, libertarians begin with the premise that each individual should have certain liberty rights (eg, self-ownership, property rights, and contract rights) and that whatever distribution results from the exercise of these rights is a just distribution.

In this article, the authors accept Rawl’s hypothesis, when referring to distributive justice. *Corrective justice* involves the rectification of wrong doing or unfair practices; that is, rectifying injustice. *Procedural justice* is concerned with the means by which social groups (governments, private institutions, and families) use laws, polices, or procedures to apply corrective and distributive justice to particular cases. Procedural justice, therefore, provides a process to fairly allocate social benefits and burdens and is supposed to ensure impartiality, consistency, and transparency through fair trials.

**Effects of social injustice**

Both the general public and clinicians often attribute improvement in life expectancy and quality of life over the last century to healthcare and, thereby, ignore the contributions of general social and economic improvement. Unfortunately, social and economic inequalities contribute to the inability of healthcare, by itself, to fully address the health needs of specific populations. The infrastructure, political will, and
resources necessary to protect and improve the health of all individuals are inequitably distributed, leaving the “least well off” individuals living in this milieu—most of whom are people in poverty and people of color—vulnerable to disease. Both overt and subtle discriminatory public and private policies are at the root of these inequities. They create the mentally and physically toxic environments to which poor, predominantly minority populations are relegated.

The events during and following Hurricane Katrina exposed these environments and the unjust structural system that low-income and minority populations in New Orleans have experienced for generations. Data from pre-Katrina New Orleans demonstrate a city that ranked significantly below the national average in areas most likely to affect health and well-being; approximately 30 percent lived below the poverty level, 47 percent of the city’s schools had been deemed “academically unacceptable,” and approximately 30 percent of city residents did not have access to transportation. These characteristics, and similar inequalities of access and opportunity, contributed to high rates of chronic and infectious disease, emotional distress, and death, exacerbated by this and most disasters.

Disasters do not treat everyone alike. People of color and the impoverished disproportionately bare the burden of disease regularly, more so in times of crisis and challenge. How do we expect to fulfill our obligation as public health professionals to protect the health of the entire nation during an influenza pandemic, when structural and political inequities hamper the ability of low-income and minority populations to thrive on a daily basis?

History of influenza pandemics and pandemic preparedness efforts

During the last century, the genesis of several new influenza virus subtypes caused three pandemics, all of which spread around the world within a year of being detected: Spanish flu (1918–19), Asian flu (1957–58), and Hong Kong flu (1968–69). Of the three, the Spanish flu [A(H1N1)] caused the highest number of known influenza deaths. More than 500,000 people died in the United States alone, and up to 50 million people may have died worldwide. Nearly half of those who died were young, healthy adults.

In the United States, federal agencies, in coordination with public health departments and private sector partners, have been working to assure an effective and coordinated response to a “pending” pandemic. Aware of the threat the swine flu pandemic posed in 1976, the federal government developed the first national pandemic plan in 1978. Since then, the plan has undergone a number of revisions and, as of November 2005, exists as the Pandemic Influenza Response and Preparedness Plan developed by the Department of Health and Human Services. To assist state and local health departments in preparing for the pandemic, a Planning Guide for State and Local Officials exists within this draft. The Planning Guide for State and Local Officials underscores the importance of a well-structured plan to protect the health and ensure the safety of the nation. It acknowledges vaccinations, antiviral therapy, and prophylaxis as central strategies in mitigating the effects of an influenza pandemic, if we have the time to develop, acquire, and distribute them. For these strategies to be successful, vaccines specific to the pandemic viral strain must be created in a timely manner; a stockpile of antiviral medications must be readily available; and detailed and effective plans for distribution to protect individuals in communities must be established.

Unless new techniques of production and distribution of vaccines are found, we are likely not to have the time to implement these strategies when a pandemic strikes, given the current exigencies of influenza vaccines production and the very limited supply and manufacturing capacity of antiviral medications. There is some indication that technologic advances may help. In promising early research, a new technique is described that may significantly shorten the time from virus definition to full production.

The Planning Guide recommends the improvement of vaccination rates by state and local health departments during interpandemic periods as an important factor in preparing for the pandemic, so that especially at-risk populations will get acquainted with where and how to access flu shots. However, even during seasonal flu epidemics accessing and improving vaccination rates among ethnic and racial minorities and the impoverished have proved to be difficult. The challenge in ensuring the protection of these populations is due, in part, to an indelible legacy of distrust of the healthcare delivery system and inequities in resources, as well as a distrust of the political process.

In one view of the way political processes work, conflict between groups is inherent to human social interaction. Over time, this conflict leads to a dominant group, which determines how things work, and a subordinate group, which often does the actual work, but gets less material reward than the dominant group. Subordinate populations have good reason to be suspicious of the political process, procedural justice, and of efforts of public health officials and healthcare providers (often representatives of the dominate group), given the history of unethical public health efforts and healthcare inequalities apparent in the United States. Oppressed by the rules of the dominant population, low-income and minority populations have been subject to unethical research studies (eg, the Tuskegee Study, New York’s HIV experiment), unequal treatment in the delivery of healthcare, and inequity in the types
of facilities available. Second, access to healthcare in the United States is based on employment, and indirectly, on wealth and ethnicity. If you are poor, it is hard to get good healthcare, even if you have insurance. Third, and perhaps most important, those who live in substandard economic and social conditions are more susceptible to negative health outcomes of any challenge.

In the absence of social, political, and economic equality, racial and ethnic minorities and individuals of low socioeconomic status are left extremely vulnerable to every threat that may become apparent. Although some believe that a pandemic outbreak will be nondiscriminatory in its effect, by virtue of the existing inequities in social conditions (e.g., education, employment, housing, transportation), these populations will be disproportionately affected. How do we build a fair distribution of benefits during a pandemic in a society so burdened by inequality?

● Equal Protection and Quality of Services During a Pandemic

While creating these pandemic preparedness plans, applying the principles of social justice will give local practitioners, partnering agencies, and community stakeholders the opportunity to truly assess their ability effectively to meet the charge of protecting the health of all individuals equitably within the community.

At the core of social justice is the principle that everyone is entitled to the fulfillment of “basic human needs,” regardless of social differences (e.g., income, class, gender, race, ethnicity, etc.). It has been operationally defined as “what is done in association with others to restructure our institutions and laws to advance the perfection of every person and family affected by that institution.”23 On the basis of this definition, the aforementioned definitions of distributive, corrective, and procedural justice, and the history of public health, the authors believe that the principles of social justice are an inextricable part of public health practice.

Purposefully applying the principles of social justice in public health requires attending to root causes that perpetuate the existing inequities in racial, ethnic, and socioeconomic health status and access to care. There are a number of challenges we face in doing this (e.g., political will, resources, and knowledge); however, one option for responsible action would be to open a dialogue with the citizens of our nation, at least, so that all sectors know that we, in public health, are committed to act fairly in the event of a pandemic or other emergency, despite the challenges.

Since definitive treatments will likely be in scarce supply, our national public health leaders must turn to other means of reducing the caseload or slowing the spread of illness during an influenza pandemic.24,25 At the beginning of a pandemic with a novel strain of flu virus, our most effective strategies may involve voluntary social distancing, improved cough and sneeze etiquette, disinfection of household surfaces, hand-washing, masks in clinical settings, and social support for anxious exposed and nonexposed people. In addition, if we must institute travel restrictions, school and business closure, involuntary isolation of influenza cases, and quarantine of those exposed (or even just possibly exposed), we may encounter significant resistance to these measures from many, and to no lesser degree in our historically challenged populations, especially since the evidence of the effectiveness of any of these strategies is limited, in part because public health has not been effective in communicating to the public the utility and necessity of these measures.26,27 It is imperative that knowledge about these “resources” and all potential courses of action is distributed equitably.

As mentioned earlier, public health officials should start to dialogue with all Americans about what might be requested or imposed on them, if a serious pandemic occurs, as soon as possible. No matter what our main defenses may be, public health officials must be mindful of plans to support any individuals, families, or communities, who are forcibly separated from their usual sources of emotional or material sustenance, especially people of color (and persons with disability), and who have experienced such a long history of discrimination in America.

Public officials must be committed to the idea that in preparation for, and in the event of, a pandemic outbreak, we are to be equitable in the distribution of resources to protect the health of communities and the nation. The Model State Emergency Health Powers Act promises no less.28 We can hope that our national discourse will be inclusive and transparent, and public officials will be held accountable. In addition, we would do well to acknowledge that our decisions about how to attend to most crises are based on informed guesses, with no guarantee that they will be correct.

● Implementing the Concept: Achieving Equity in the Protection of the Nation During Pandemic Preparedness Planning

Several principles within the Public Health Code of Ethics implicitly state the commitment of public health to principles of social justice in general and distributive justice in particular. Should we remain true to the ideals within the Code of Ethics, the following should be considered in all public health activities, including influenza pandemic preparedness planning.29
1. Address the fundamental causes of disease and requirements for health aiming to prevent adverse health outcomes. If we are to prevent adverse health outcomes of an influenza pandemic for a large sector of the population, effective strategies to produce and provide vaccinations and acquire and distribute antiviral medications are needed. However, even with current, “ordinary” strains of influenza virus, immunization rates for African Americans and Hispanics are substantially lower than those for their White counterparts. Data show that in 2000, children living below the poverty level had low immunization coverage rates. To improve access and utilization of vaccination among ethnic and racial minorities and other hard-to-reach populations, a thorough assessment of the societal factors contributing to current poor vaccination rates could be helpful. With this crisis looming and the need to begin to engender trust in our entire population, this would be a good time for our political leaders to accept responsibility for the consequences of their decisions that impact the “least well off,” examine the financial processes behind those decisions, and acknowledge the caustic nature of persistent racism, however camouflaged.

2. Achieve community health in a way that respects the rights of individuals in the community. According to the United Nations Committee on Economic, Social, and Cultural Rights, immunization against major infectious diseases is a fundamental right of children and vulnerable populations that governments are obligated to fulfill. Unfortunately, getting enough of the right vaccines to the right time and delivered to the at-risk communities poses tremendous challenges at many levels: the identification of organisms, proper manufacturing of even “ordinary” vaccines, and delivery in a way that assures a fair distribution of benefits and burdens. These tasks will be even more difficult with a novel dangerous strain of influenza. In addition, limited availability of services and inadequate transportation in disadvantaged communities make it increasingly difficult for individuals of low income to access vaccinations, medications, information, etc., to which, we believe, they have a right. Pandemic planning must take into consideration these service delivery and infrastructure issues to ensure that the systems developed to deliver the necessary services respect the rights of all to receive it.

3. Develop policies, programs, and priorities that ensure the opportunity for input by community members. In the guidance document issued to state and local health departments for pandemic preparedness planning, state and local health officials are instructed to “identify and meet with partners and stakeholders to a) promote awareness; b) assign specific responsibilities; and c) develop specific components of the plan.” Members and representatives of historically subordinated communities should be identified and fully involved from the beginning in the planning process. Planning involving these groups will facilitate meeting the requirements of distributive and procedural justice, by allowing members of various communities to contribute to the planning process to increase the likelihood that their needs are met.

4. Advocate and work for the empowerment of disenfranchised community members, aiming to ensure that basic resources and conditions for health are accessible to all.

Members of communities most impacted by the social conditions contributing to disparate health outcomes should be encouraged and actively supported by public health practitioners to become effective advocates for their communities. Members of the Canadian Pandemic Influenza Working Group, including Ross Upshar and Peter Singer, from the University of Toronto Joint Center for Bio-ethics have developed a number of key points they recommend to prepare for an influenza pandemic.

Plans to deal with influenza pandemic need to be founded on (practical logistical issues) and widely held ethical values, so that people understand in advance the kinds of choices that will have to be made. Decision makers and the public need to be engaged in the discussions about (what might happen to them) and ethical choices, so plans reflect what most people will accept as (doable), fair, and good for public health.

According to the Canadian Pandemic Influenza Working Group, four key ethical issues need to be addressed:

- Health workers’ duty to provide care (to all) during a communicable disease outbreak;
- Restricting liberty in the interest of public health by measures such as quarantine;
- Priority setting, including the (fair) allocation of scarce resources such as vaccine and antiviral medicine;
- Global, national, and local governance and jurisdictional issues (keeping in mind the empowerment of disenfranchised communities).

5. Provide the public with the information . . . needed for decisions on policies and programs and obtain communities’ consent for their implementation. The World Health Organization’s Checklist for Influenza Pandemic Preparedness Planning only briefly addresses the informational needs of ordinary people who might help them make rational decisions. They do address general personal hygiene, community infection control measures, social distancing and quarantine, as well as travel and trade restrictions in the chapter on preventing spread of the disease in the community. Details on how the general population should prepare for a pandemic are
missing, although in other sections for professional activity, details abound. There are no details on how individual and community consent will be obtained. Therefore, addressing communication and community issues need a dramatic increase in commitment at all levels of governance, with a parallel investment of resources.

We do know, from behavior change theory, that information alone will not solve all problems. Resistant attitudes and beliefs regarding vaccination play a role in low vaccination rates among African Americans, and a legacy of distrust, especially among older African Americans, still exists. 20,32,35

6. Engage in collaborations and affiliations in ways that build the public’s trust and the institution’s effectiveness. It is important for public health professionals to collaborate with communities and institutions outside of public health (eg, housing, education, community organizations, transportation) to address existing weakness or absences in policy and infrastructure that may contribute to the inability of marginalized populations to access all they will need in a timely and effective manner, if a pandemic strikes. In addition, jurisdictions should engage in tabletop exercises and other drills that include community members, so they can practice how to quickly immunize hard-to-reach populations in disadvantaged communities. This recommendation is covered in the World Health Organization’s Checklist for Influenza Pandemic Preparedness Planning. 36

● Funding and Distributive Justice: Communication and Procedural Justice

Unfortunately, current resource allocation belies a national commitment to distributive justice, based on the Rawl hypothesis. The lack of engagement with communities of color during pandemic influenza preparedness planning belies a commitment to procedural justice.

On one hand, we have an unknown probability for an influenza pandemic, to which the entire population will be at risk. On the other hand, we have known serious chronic problems, spread unevenly through our population, with disadvantaged people at much greater risk than the general population. 37,38 These chronic problems harm and kill large numbers of people every year and will very likely continue to do so for the foreseeable future. To truly protect these populations and mitigate the effects of both serious chronic diseases and pandemic influenza outbreak would take significant shifts in political will and resource allocation. Indeed, to get funding for programs aimed at helping improve outcomes for poor, disadvantaged people in our society, with nonnovel problems, is difficult and requires very well coordinated efforts. Perhaps we will be more successful in getting resources to attend to influenza preparedness for all, because the whole population will be more vulnerable if the disadvantaged are left out.

In the current political and economic climate, funding for chronic disease management programs has been cut yearly for several years, especially at the state level. Since funding is finite, we may have to make difficult choices as a society. It is hoped that the populations at risk will be included in the dialogue and the political process.

The absence of rational dialogue with the low-income and minority populations to address resource allocation should come as no surprise; short cycles of funding for public health programs aimed at improving the lot of our disadvantaged population, the lack of any overall federal direction for Public Health, and the disruption created by strict categorical funding have been going on for years. These are prime examples of our failure to address our public health issues and problems from the perspective of a fair distribution of benefits and burdens, much less a coherent planning perspective. US agencies have underfunded efforts to address the fundamental causes of disease that should help us avoid adverse health consequences and have eroded public trust; troublesome behavior from the viewpoint of social justice, discussed in this article. US funding agencies have ignored the basic constructs of public health ethical discourse from which legitimacy could have been derived. 39 These governmental decisions were not transparent, and did not include the population affected, and accountability has been lacking.

With any question about appropriate levels of funding for competing programs, the process of weighing the relative value of programs, or risk assessment, must be determined, if funds are to be allocated rationally. 40 In both rational and political assessment, risks of various populations to a variety of problems should be assessed, compared, and prioritized, leading to resource allocation. Allocation would then be based on logic, evidence, and integrated planning. At some federal, state, and local levels, processes do exist to rationally assess individual disciplines, as in the Maternal and Child Health Risk Assessment process for federal Title V funds to states, or with the National Public Health Standards Assessment, which is part of the Turning Point MAPP process. 41 Both of these welcome collaboration with community members, who then can help with prioritization.

● Conclusion

State and local health departments will be on the frontline of public health efforts to curtail the impact of an
influenza pandemic; as such, it is their responsibility to do whatever is necessary to ensure, protect, and promote the health of the populations within their jurisdiction. To ensure that local health departments, as protectors and promoters of the public’s health, are adequately fulfilling this obligation, they must consider principles of social justice. In addition, open dialogue and collaboration with the entire population must begin soon and in earnest, with adequate funding and attention to detail.

In preparing to deal with the likely challenges of an influenza pandemic, including very limited future vaccine supply and lack of availability of appropriate antiviral medications, all levels of governmental public health should focus on inherent barriers to a fair distribution of benefits and burdens. These include entrenched racial, ethnic, and socioeconomic disparities in health outcomes, lack of bidirectional communication, and unequal access to medical care, as well as the conditions that make these populations vulnerable in the first place. Even during winters with influenza from flu strains that have changed only a bit, low vaccination coverage among ethnic and racial minorities and persons living in and near poverty is a persistent problem, particularly for hard-to-reach populations (eg, injection drug users, elderly shut-ins, and undocumented immigrants). Failure to prepare to respond appropriately to the needs of these populations during an emergency can serve to exacerbate racial, ethnic, and socioeconomic disparities in infectious disease outcomes, and thus may leave even those in the dominant population in a more vulnerable position.

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