Breakdown of U.S. Public Health Infrastructure, Breakout of Disease

by Dr. Debra Hanania Freeman

June 13—A close look at the complete breakdown of all aspects of the nation's public health infrastructure is nothing short of alarming. And, despite what some would like to argue, the breakdown didn't begin the day that Donald Trump became President.

Earlier this year, a state of near panic erupted when a Los Angeles city employee was diagnosed with typhus, which she says she contracted at the city's ratinfested City Hall. Then on May 29, the Los Angeles Police Department (LAPD) announced that an employee at its downtown station was being treated for typhoid fever. Soon afterward, it came out that five

other LAPD employees were displaying symptoms.

These incidents focused attention on the problem, but the fact is, such cases of disease have actually been increasing in California for more than a decade.

According to the Centers for Disease Control (CDC), 2008, Los Angeles County reported 13 cases of murine typhus, carried by fleas. In 2018, that number increased to 124. In the first

four months of this year, more than 190 cases have already been reported. The problem is compounded by the fact that officials don't keep an accurate count of how many cases of murine typhus there are each year; public health officials believe that the actual number of cases is probably much higher.

It doesn't take a genius to figure out why this is happening. A stroll through downtown L.A. makes it impossible to ignore the piles of uncollected trash that litter the streets. That trash attracts rats and stray cats that carry the disease, though it doesn't make them ill. But their fleas transmit the bacteria to humans by biting the infected animals and then biting humans.

Rising Number of Unsheltered Homeless

Due to cuts in city services, uncollected trash has been a major problem in Los Angeles, and countless other cities in the U.S., for more than a decade. But the problem has been dramatically escalated by the burgeoning numbers of encampments of unsheltered homeless people living in absolute squalor. And, while estimates on the numbers of unsheltered homeless vary widely, even the most conservative estimates indicate that there were approximately 600,000 unsheltered homeless adults (as opposed to those living in shelters and temporary housing) in the U.S., with more than

half of them living in Califor-

In his February State of the State address. California Govprimarily through

ernor Gavin Newsom said, "Our homeless crisis is increasingly becoming a publichealth crisis," citing outbreaks of hepatitis A in San Diego County, syphilis in Sonoma County, and typhus in Los Angeles County. Hepatitis A, spread feces, infected more than 1,000 people in Southern Cali-

fornia in the past two years. Almost twice that number of cases have already been diagnosed this year among homeless people in San Francisco, where the piles of human feces littering the streets, especially in the Tenderloin district, have forced the city to employ Poop Patrols whose task it is to collect the feces and steam the streets on a nightly basis. The disease has also erupted in New Mexico, Ohio, and Kentucky, primarily among people who are homeless or use drugs.

In the state of Washington, both Seattle and Kings County recently reported epidemic-level outbreaks of shigellosis, which is spread by feces, as well as trench fever, which spreads through body lice. Less serious, but



The Oriental Rat Flea, Xenopsylla cheopis, is a primary vector for both murine typhus and bubonic plague.



Homeless camp near Laney College in Oakland, CA.

no less widespread, are skin infections which also greatly lower an individual's resistance to other diseases.

On the East Coast, in cities like New York, Philadelphia, and Washington, D.C., although encampments are becoming more and more common, most of the homeless population is sheltered. So, while diseases like typhus and hepatitis are less of a problem than they are on the West Coast, the reported cases of tuberculosis in homeless shelters are at the highest level since the Great Depression.

These infections are hardly a surprise. In California, without any public bathrooms or areas where people can even wash their hands, human feces are contaminating the same areas where people eat and sleep. Elsewhere, even those fortunate enough to find beds in homeless shelters are vulnerable to such outbreaks because their weakened immune systems are worsened by stress, malnutrition, and sleep deprivation. Many also have mental illness and substanceabuse disorders, which make it even harder for them to stay healthy or get even the most minimal health care.

The proposed solutions range from massive increases in urban sanitation budgets, to new forms of sanitation like San Francisco's Poop Patrols, to allocations for portable toilets, to rounding up the homeless and moving them elsewhere, making them somebody else's problem. But the proposed solutions aren't solutions at all. Simply cleaning up the garbage in so-called "typhus zones" will not solve the problem, as people who have nowhere to go and nowhere to dispose of their waste will simply make more. And more garbage means more rats, which means more fleas, which

means more typhus, more hepatitis, etc.

The problem is getting worse not only in urban areas, where astronomical housing prices are fueling the crisis, but also in rural states, which are reporting rapidly increasing numbers of homeless encampments where even fewer services are available. Between 2012 and 2018, government estimates indicate that homelessness surged by 75%.

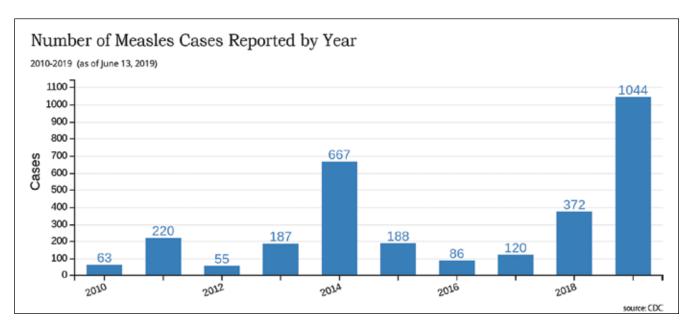
The homeless population is varied. Almost a third of Los Angeles's 50,000 home-

less are suffering from chronic mental illness. In Washington, D.C., among homeless adults with children, almost a third have reported working at least part-time. NYC estimates that 10% of the children who attend public school are homeless. In Washington, D.C., that number jumps to 45%. A recent study by the National Center on Family Homelessness at the American Institutes for Research estimates that there are more than 2.5 million children in the United States that are homeless. The public health implications are staggering.

Spread of Infectious Diseases

Furthermore, the idea that somehow the spread of these infectious diseases is contained among the homeless is itself a dangerous illusion. A case in point: the U.S. is currently grappling with the worst measles outbreak in more than 65 years. The CDC reports that as of June 6, there were 1,002 confirmed cases of measles in the U.S. in the first six months this year, triple the number of cases reported in all of 2018. From January 1 to June 6, cases were confirmed in 28 states.

The patterns of incidence are necessitating many localities to take various public health emergency measures. For example, as of March, several counties in New York, including New York City, were forced to declare states of emergency and activate special orders. In the Williamsburg section of Brooklyn, NY, where more than 250 people, mostly members of an ultra-Orthodox Jewish religious community, have gotten measles since September, a policy of mandatory vaccination was ordered (and upheld by the courts). Also, in late winter, more than 700 students and staff members at two Cali-



fornia universities—the University of California, Los Angeles, and California State University, Los Angeles—were under quarantine. Three counties in Maryland had to restrict hospital visits by children under the age of 18, who are assumed to be unvaccinated. All this in a nation that, in the year 2000, declared measles to be totally eradicated. What has gone wrong?

Measles: Most Highly Contagious Virus

First, it is important to understand that the measles virus is possibly the most highly contagious virus that we know. About 90 percent of people exposed to measles will become infected if they are not immune or have not been vaccinated. It is so contagious, that it is possible to contract measles simply by entering a room, hours after an infected person has been there. Adding to the high communicability, the virus is durable: It remains in the air of a room for up to 21 days. As a result, a much higher level of immunization coverage is required in order to achieve herd immunity—a form of indirect protection from infectious disease that occurs when a large percentage of a population has become immune to an infection, usually as a result of vaccination, thereby providing a measure of protection for individuals who are not immune. The level of vaccination needed to achieve herd immunity varies by disease but ranges from 83 to 94 percent. For measles, an outbreak can occur as soon as coverage drops below 90%; coverage of 95% is required before herd immunity is securely achieved.

Moreover, whenever measles strikes, any public

health professional will tell you that it's more than just an outbreak of a single disease, or even an indication that children aren't receiving their measles shots. It is a sharp warning that immunization coverage in general, for all vaccine-preventable diseases, is lower than it should be. That is, when rates of routine vaccination—children receiving all their shots on schedule, as a preventive measure rather than a reaction to an outbreak—start to fall, the first sign is usually a measles outbreak. These outbreaks, when looked at from a public health standpoint, are the proverbial canaries in the coal mine.

Vaccinations Way Down

At the moment, routine vaccination is at the lowest level the U. S. has seen since the introduction of the polio vaccine. More and more people are opting to not vaccinate their kids. The main fixation of anti-vaccine groups is an old discredited study linking vaccination to autism, something that President Trump lent credence to during his campaign (although the recent measles emergency has led him to have a change of heart). Another is a conspiracy theory, heavily circulated online, that both doctors and pharmaceutical companies stand to profit financially by pushing vaccines.

In fact, the opposite is true. Vaccine production is simply not profitable. In the past, federal initiatives and the allocation of federal funds were solely responsible for providing the incentive for big pharma to produce vaccines:

• Dwight D Eisenhower signed the Polio Vaccination Assistance Act in 1955, which gave \$30 million in



USAF/Desiree N. Palacio

Boy receiving multiple vaccinations as part of Immunization Awareness Month, August 2014.

federal grants to states to cover the costs of planning and conducting polio vaccination programs, including purchasing polio vaccine

• John F Kennedy signed the Vaccination Assistance Act in 1962 (Section 317 of the Public Health Service Act), declaring "There is no longer any reason why American children should suffer from polio, diphtheria, whooping cough, or tetanus. ... I am asking the American people to join in a nationwide vaccination program to stamp out these four diseases." The measure provided financing for a three-year program to provide funds to ensure that American children be vaccinated against polio, diphtheria, tetanus, and pertussis, but it has been continuously reauthorized ever since.

Federal support for vaccines reached a low point while Reagan was in office and we quickly saw outbreaks of vaccine-preventable diseases, including many deaths, especially as rates of children living in poverty and without health insurance increased. More importantly, the national supply of vaccines diminished to dangerous levels, with most pharmaceutical companies ceasing production of most common vaccines.

Following three years of measles outbreaks, in 1991, an alarmed George H.W. Bush initiated his immunization activation plan that once again served to raise immunization rates. During Bill Clinton's presidency, he declared a state of national emergency when it was learned that vaccine supplies had diminished to record lows. He launched the Childhood Immunization Initiative in 1993, which included signing the Vac-

cines for Children (VFC) Act, providing free vaccines to many children.

As funding for these programs ran out, pharmaceutical companies once again ceased production. Today, Merck is the only company currently licensed to offer the measles vaccine.

Ironically, the failure to fund vaccination programs is extremely costly. In the case of measles, the economic cost of the highly infectious and potentially deadly virus is continuing to rise.

"It is expensive to the public health system," Dr. Nate Smith, the director and state health officer for the Arkansas Department of Health, told Fox Business earlier this year. "The real costs, though, are not all financial, and they're borne by the individuals and the families."

Although there had been no cases confirmed in Arkansas, he reported that an analysis of a 2018 case led them to an estimate of the cost to the health department. The result? A staggering \$47,962.

Although cases and outbreaks of measles are unique—and therefore the cost is not uniform—Smith said that a figure of \$50,000 is "pretty consistent" across the U.S. (based on a report in the medical journal *Vaccine*). Extrapolating these figures to the 695 confirmed individual cases in 22 states, the economic cost exceeds \$30 million. "And quite honestly," Smith said, "you can vaccinate a whole lot of folks for \$48,000."

A Public Health Emergency

The bottom line? Whether we are talking about the public health emergency created by rising homelessness, the current measles outbreak and all that it implies, or even the fact that more and more health insurers are now refusing to fund cancer treatment at the nation's premier cancer research facilities because the cost is deemed too high, the result flies in the face of President Trump's assertion that the U.S. economy is the best it has ever been. Monetary profits may be high, but in reality, they are no measure of a healthy economy. Making America great again is an admirable goal, but to do so means a reassertion of the commitment to promote the general welfare of our population. The most workable approach to doing so is to implement the programs and policies most recently delineated in Lyndon LaRouche's Four Laws for Economic Recovery and the Four Powers Agreement. Nothing short of that is going to work.