

Carrie

Hi, my name is Carrie, I live in Colorado and work as a hospice chaplain. In that role I provide spiritual and emotional support to some of the most vulnerable among us, those who are diagnosed with a terminal illness and expected to die within 6 months or less. This season of COVID has had an extraordinary impact on those who are already facing excruciatingly difficult circumstances. For those who receive hospice care at home, many have not had a chance to spend cherished time with children, grandchildren, siblings, and friends who are unable to visit due to travel restrictions, border closures, and the risk of virus exposure. This also means that family members who would ordinarily jump in and lend a hand with the intensive responsibility of 24/7 care for a loved one who is dying are less available to provide the kind of practical and emotional support families need. Many who are terminally ill also receive hospice care in nursing communities and that has proven especially challenging as a result of state restrictions to protect this population from devastating outbreaks.

Family members and hospice support staff are rarely permitted to visit nursing community residents in person right now although family members are occasionally able to schedule window or outdoor visits, these are typically limited to 30 minutes or so, they are dependent on weather, and difficult or impossible to coordinate for those who are bedbound. And unfortunately window and outdoor visits are incredibly confusing for people who have dementia and frustrating for those with hearing and visual deficits. Telephone and video visits are typically not optimal or possible for the same reasons. So imagine that you're living in a nursing community, anticipation builds as you're wheeled to an outdoor visiting area where your wheelchair is locked in place 6 feet away from your son or sister or best friend you haven't seen in 6 months. You can't hear what they're saying because you're too far away, you can't watch their lips because they are wearing masks, can't hug them and aren't allowed to sit with them and enjoy your favorite lunch they picked up on the way.

To visit someone inside a nursing community during the pandemic in the state of Colorado your loved one must be actively dying to qualify for what we're calling 'compassion visits'. Occasionally hospice support team members are permitted to visit during this short window of time. When people are dying, their greatest need is almost always to spend time with those who are closest to them, reflecting on memories, verbalizing expressions of love, offering forgiveness, seeking reconciliation, and sharing hugs and kisses. There's usually some level of fear about the dying process, concern regarding unfinished business and a desire to address these issues. When family members, friends, and support staff can be present to offer reassurance, calm anxiety, answer questions, and respond to unmet emotional and spiritual needs the dying process is more peaceful for the person who is dying and also for family members and other companions during the process.

It's important to know that when we're actively dying, that period of time when in-person compassion visits are allowed, we can generally hear what's going on around us but are minimally responsive and don't have the energy to engage in conversation. During this especially tender time, I encourage family members and friends to keep talking to their loved one and watching for subtle signs of response, usually a facial movement or eyes opening briefly. The difficult part of limiting family visits to the last few days of life is that most of us want opportunities to interact, to have important conversations before our loved one is actively dying and becomes minimally responsive. This is often not possible with current guidelines. That's heartbreaking for family members and friends and also difficult for healthcare staff to witness. In fact it compounds and complicates grieving process, not only now but likely for years to come.

Clint

My name is Clint and I'm a high school special education teacher in northeast Kansas. For most of the 2020/2021 school year, our district was going back and forth from fully remote to a hybrid schedule with half of the students coming in the morning and half coming in the afternoon. It was rough on all the teachers but those of us in special education had a really tough time meeting our legally mandated service minutes for our students. Even when we were able to connect with the kids on our caseload it was often over Zoom which is a pale imitation of actual student contact.

All year I've been getting calls and emails from parents worried about their kids falling behind and expressing frustration at turning into their own kids de facto case managers and service providers. Each kid enrolled in special education services gets an individualized education plan or IEP written for them every year. This year we had to amend every IEP with a remote learning contingency plan within the first month of school. During that time the district changed their attendance plan and we had to adjust our service minutes written on each IEP as we rewrote our contingency plans. And the worst part for me and probably all of my colleagues as well is that all this paperwork and bureaucracy comes at the expense of getting to actually spend time with our students.

By far the most important part of being a special education teacher is forming relationships with the students in our resource classes and our caseloads. But so much of our energy has been spent rewriting legal documents and organizing legally mandated meetings. I have some students I haven't even met all year even now that our district has gone back to full time in person. I actually had to hold an IEP meeting last week for a student I haven't met at all. Fortunately that student's guardian was very understanding and was able to be a strong advocate for them. Any teacher can tell you that it feels like very little actual teaching and learning has been happening since about March of 2020 but in special education it's been particularly difficult. We're now back to school all day everyday with masks and social distancing and it's becoming more and more clear just how much we lost being unprepared for a pandemic. All we can do now is try to make up as much lost ground as we can.

Millie

Hi, my name's Millie, I'm 23 years old, I graduated last year in 2020 and I live in northern England in the U.K. Like many people my age I found it really hard to get a job, at least a job that I want because of the pandemic. So I took a job in a COVID-19 test center. We do the lateral flow test which is a form of asymptomatic testing, we don't test people with symptoms, that's the PCR test. The idea is to catch cases of COVID-19 that wouldn't have been apparent because they don't show symptoms and we work in a school so we test teaching staff and all pupils twice a week now. Although the government guidance changes pretty much every week so sometimes we're telling people to swab their tonsils four times, sometimes it's five, sometimes it's just two on each tonsil, sometimes it's just up the nostril, we're really playing it by ear. It seems quite inconsistent, the guidelines, so we're just learning to try and be as accurate as we can under the changing circumstances.

And we're all absolute beginners. My own degree was in French, I've no medical background. The only people at our test center with medical or scientific background are our lab technicians and they taught us to be really meticulous and careful when we process the samples. We've seen some hilarious things. Some of the kids have asked what the tonsils are, some of them swab the outside of their neck when we handed them the swab. The kids are very resilient and they're adapting remarkably well to the situation. I think it's other people who are having a hard time. Here in the U.K. the public sector is a big support network for people especially in poorer communities. We need places like schools, ordinary state schools and libraries, health centers to stay open but it's difficult because of the pandemic and we have to turn people away who are actually quite lonely without those services. And in terms of our rollout of mass testing it's focused on key workers for example those who work in factories, food production, supermarkets, healthcare, and education.

But it's mostly run by volunteers and redeployed council workers so sometimes we worry that we're not really qualified to be conducting tests and giving people these very crucial test results. And recently the most striking thing that I've found is that older people who I work with in the test center who guide our students through the swabbing process have been comparing the effort we're all making collectively against COVID-19 as a war effort. You know that these are the people who can remember their parents being involved in the war effort of WWII. And they're right. Much like how women during wartime moved to working in factories, environments they never worked in before, those of us who work in the public sector in the U. K. who are employed by the local councils have been sent to deal with this crisis. We test people, we try and pick up on asymptomatic cases of COVID-19, we have jobs now where we're responsible for maintaining health and safety, avoiding cross-contamination. And so much like a war effort.

What I've seen here in the U.K. especially among teachers and ordinary low level government workers are the wonderful ways in which ordinary working people can really pull together in times of crisis. And it's been amazing to see how it's brought people together even though of course there's a lot of hardship. Ultimately just like with the war effort, everybody has pushed their limits and found something to do. And I love working in the test center, it's actually really good fun, it makes me feel like a scientist. (laughs)

TPWKY

(This Podcast Will Kill You intro theme)

Erin Welsh

Thank you so much to everyone who has shared a firsthand account with us for this series, for this episode, for just filling out the Google Doc, everything. We really appreciate it.

Erin Allmann Updyke

Yeah, thank you so much.

Erin Welsh

Hi, I'm Erin Welsh.

Erin Allmann Updyke

And I'm Erin Allmann Updyke.

Erin Welsh

And this is This Podcast Will Kill You.

Erin Allmann Updyke

Welcome everyone to episode 20.

Erin Welsh

20!

Erin Allmann Updyke

20 episodes in our Anatomy of a Pandemic series covering the COVID-19 pandemic. It's been a lot.

Erin Welsh

It's been a lot. Very much.

Erin Allmann Updyke

This is tentatively our final episode in this series. We have come a very long way since our first episode of this series and we've covered so much ground.

Erin Welsh

So much ground. When we started this COVID-19 series back in early 2020 I don't think that we had any idea how many episodes of this we were gonna do and how many different lenses we would use to examine the impacts of the pandemic.

Erin Allmann Updyke

No. It was supposed to be one episode Erin at first and then I was like-

Erin Welsh: And then I talked you into 6. (laughs)

Erin Allmann Updyke: Well it's gonna be 6. And then it was like well we should probably do some more, well we should revisit... Guys.

Erin Welsh: I mean I have loved putting this series together, I think it's been really interesting and really has allowed us to kind of feel out just how many ways there are to look at this massive, massive thing of course that's impacting all of us.

Erin Allmann Updyke: Yeah.

Erin Welsh: And there are still so many unasked and unanswered questions, there are still many lenses that we haven't explored and lots of ground that we still have left to cover. And I think that, you know like I said that's just part of the nature of a global pandemic, one that I'm sure will inspire or already has probably inspired a field of study all of its own.

Erin Allmann Updyke: So we're not entirely ruling out the possibility of picking up this series sometime in the future to kind of cover some more of that uncovered ground. But for now we are putting a pin in it. We are tentatively concluding this series with an episode imagining what the future might hold for us by looking back in time to what is possibly the closest comparison to what we've experienced with COVID-19 of course the 1918 influenza pandemic.

Erin Welsh: Yes. But before we get to that we have some business to take care of.

Erin Allmann Updyke: We sure do. What time is it?

Erin Welsh: It's quarantini time, Erin.

Erin Allmann Updyke: It sure is. It always is on this podcast.

Erin Welsh: It always is. We thought that for this last episode in the series and especially for the topic that we're covering that the Corpse Reviver #1 would be a good choice, an appropriate choice.

Erin Allmann Updyke: I absolutely love it. So if anyone doesn't remember or hasn't listened, our very first quarantini of all quarantinis that is from our very first episode was Corpse Reviver #2 which we called the H1 Drink 1.

Erin Welsh: Yep.

Erin Allmann Updyke: From our first episode on the influenza pandemic. I love, Erin, when I saw that you suggested the Corpse Reviver #1 I was like that's phenomenal.

Erin Welsh: I mean I was like what was popular during 1918? And then I was like duh! There's Corpse Reviver #2 which implies there must be a #1 so let's do that one. It's gonna be interesting to do a nonalcoholic version but that's okay.

Erin Allmann Updyke: So what is in this quarantini?

Erin Welsh

Yeah so it is... I just found this recipe on the internet, it is 1 oz cognac, 1 oz Calvados, and 0.5 oz of sweet vermouth. But if you don't remember that or write that down, don't worry, we will post the full recipe on our website thispodcastwillkillyou.com and all of our social media channels. And that's also where we will post the nonalcoholic version, whatever that will look like.

Erin Allmann Updyke

(laughs) If you go to our website what you will also find is so much other stuff like a link to our merch and our Goodreads list and our bookshop.org affiliate account, our Patreon, you can find transcripts, you can find a list that Erin Welsh put together of all the promo codes that we see on this podcast so you can save some money if you're buying things. So many things, check it out, thispodcastwillkillyou.com.

Erin Welsh

Yes. Okay. Now let's get to the actual meat of this episode. Over 100 years ago the world experienced one of the deadliest, if not the deadliest pandemics in history.

Erin Allmann Updyke

Yeah.

Erin Welsh

A highly virulent strain of the influenza virus rapidly spread around the globe killing an estimated 50-100 million people. And if you've heard of the 1918 influenza, there's a good chance that it was in the context of the current COVID-19 pandemic with so many articles and podcasts and books and news programs and so on, making comparisons between what's happening today and how things transpired in 1918. And many of these comparisons are apt in some ways, what happened in 1918 is eerily reflected in the events of 2020 and 2021. And neither of us has gotten up the nerve to re-listen to the very first episode of this podcast.

Erin Allmann Updyke

No and we never will.

Erin Welsh

(laughs) Never will. It was released in 2017 on the 1918 influenza, so pre-COVID. And several listeners who have listened to it have pointed out just how spooky it is to hear in light of this current pandemic.

Erin Allmann Updyke

Oh I'm sure. Especially cause at the end we talk about what could come next. And so it was us thinking about the 1918 influenza that inspired the topic of this episode. We have over the course of the last year and a half or so learned so much about the virus that causes COVID-19 and the widespread impacts of the pandemic. But one of the biggest questions that remains unanswered is well what happens now? Right? And of course we can't actually answer that question and we're not really going to but we can do the best that we can by looking at what happened in the 1918 influenza pandemic. Granted the world was a very different place back then compared to today but there are key lessons that we learned from the 1918 pandemic. So how well did we apply them to this current COVID-19 pandemic? And if we use the aftermath of the 1918 influenza pandemic as like a rough roadmap for a post-COVID future, what are the limitations in those kind of comparisons and what can we learn from the similarities between these two pandemics and from their differences?

Erin Welsh

Yeah. And to help us wrap up this Anatomy of a Pandemic series by answering these questions and many more as always, we are extremely excited to be joined by John Barry, award-winning author of several acclaimed historical books including 'The Great Influenza: The Story of the Deadliest Pandemic in History' which is just an absolutely fascinating read on the 1918 influenza pandemic. And I talked with John on May 25th of this year. And we will let him introduce himself right after this break.

TPWKY

(transition theme)

John Barry

I'm John Barry. I consider myself a writer before anything else but a couple of my books have ended up involved in policy. I got involved in pandemic preparedness planning with the Bush administration actually the very first meeting from which the plans on non-pharmaceutical interventions, NPIs so-called, in other what do you do when you don't have any drugs. And worked a little bit with the Obama administration during the 2009 pandemic and so forth. So I just stayed involved in the area pretty regularly. I was on the federal government's infectious disease board of experts, I was the only non scientist on it and currently I have a title of Distinguished Scholar at the Tulane University School of Public Health and Tropical Medicine.

Erin Welsh

Wonderful. Well thank you so much for taking the time to chat with me today, I'm very excited to hear your thoughts on sort of COVID-19 vs the 1918 influenza. So we'll just dive in. So over the past year and a half as I'm sure you're very familiar there have been many comparisons made between the COVID-19 pandemic and the 1918 influenza pandemic. But these are two very different pandemics caused by two very different diseases. So can you remind us of some of these similarities as well as some of the differences? Things like the groups affected, the backdrop of WWI and what influence that had, case fatality rate, duration, etc.

John Barry

Now number one they're both you know viruses jump from animals to humans. Number two the mode of transmission is absolutely identical, respiratory droplets and airborne. There may be very little fomite transmission for COVID, there's probably a little bit more of that from influenza. They bind to different binding sites, one's the sialic acid for influenza and so-called ACE2 for SARS-CoV-2. Both viruses could bind to cells deep in the lung which is unusual for influenza and doesn't happen with the common cold, the other coronaviruses that we're familiar with it. So you can start off with a very serious condition if you have a heavy load of virus deep in the lung. Both viruses bind to cells in the upper respiratory tract which is why they are easily transmissible.

SARS-CoV-2 is much more transmissible than influenza. Ordinary seasonal flu's got a reproductive number of about 1.28, the 1918 pandemic was about 1.8, COVID-19 is about 2.5-3 and in fact the variants that have developed are higher than that or would be if you didn't do anything to stop transmission. The target audience you might say or target victims, in 1918 probably 2/3 of the dead were people aged 18-50. Obviously COVID-19 is primarily people over 65. The difference in age groups certainly had tremendous impact in terms of the public response and the politicization of the disease if most of the deaths, 2/3 of the deaths were people 18-50 you wouldn't hear anybody talking about let's try herd immunity. Herd immunity wouldn't work anyway for a variety of reasons but I'm getting off the subject so let's see. Both viruses in terms of similarity, both of them affect virtually every organ quite literally from the testes to the brain. If anything in 1918 there was even more neurological complications than we're seeing today.

The two biggest differences other than the one I already mentioned, virulence. The 1918 pandemic was much, much, much more virulent. People could die in less than 12 hours. They could die with horrific symptoms. Now most of the deaths were secondary bacterial pneumonia infections which antibiotics would help with today but even today the case fatality rate for bacterial pneumonia following influenza is about 7 or 8%. So that's roughly 1/4 of what it was back in 1918. It's still quite high for that disease. That aside there were many, many deaths that were directly caused by the virus. So-called long COVID, that same phenomenon occurred in 1918 you know, worldwide in 1918 it probably killed 50-100 million people. If you adjust for population that's equivalent to 225-450 million people today so even if we did nothing with COVID-19 except just let it run loose, the projections would not come up with anything like that kind of death toll, thank god.

And another very important difference is duration, which you mentioned. Influenza just moves much quicker, much, much faster in every area: incubation period, how long you're sick, how long you shed virus, how long for recovery, all those things are much faster in influenza whether it's seasonal influenza or 1918. In that sense 1918 was just like ordinary influenza. It's just much faster. So in 1918 probably as much as 2/3 of the dead died in a period of really weeks, maybe 14 weeks or so in the fall of 1918. And in any particular place it was faster than that cause influenza then would go through a community in 6-10 weeks, it would peak, and when it was gone it was essentially gone. So there were waves in 1918 but they were very discreet.

Obviously COVID-19 has been around for much, much longer now, certainly a lot of that is because we interfered and tried to stop transmission which I certainly applaud, it saved hundreds of thousands of lives in the United States alone. And that has stretched out the length of time we've had to deal with the virus, no question. But even if we had not done anything but let the virus run, we would still be dealing with it. So that's pretty much a rundown of the similarities and differences.

Erin Welsh

Yeah that's fascinating. So one of the things you mentioned was this politicization of the COVID-19 pandemic and it's true that it has been very highly politicized both in the U.S. as well as in other countries. And going back to 1918, did we see a similar intersection of public health and politics? And if we did, how did that affect both the way that the pandemic played out as well as the aftermath? And what can that teach us about this current pandemic?

John Barry

There was a very significant political context in 1918 that is very different from today. We were at war and therefore the federal gov focused absolutely everything on the war effort. They wanted nothing to distract from it or detract from it. So this included any bad news which they felt was bad for morale. And as a result there was a lot of fake news in 1918 but it all came from the government. And the government was saying things like, 'This is ordinary influenza by another name'.

People knew it wasn't ordinary influenza by another name if someone is dying in less than a day after the first symptoms, sometimes in less than 12 hours and people dying in such large numbers, everybody knew it wasn't ordinary influenza by another name. Nonetheless the government continued to insist upon that and almost every local community, they echoed that refrain although nobody believed it. But there was no partisanship. The entire country, probably more so than at any other time in American history, there was an effort by the federal government to control the way people thought and also probably more so than any other time in American history they were successful. But it wasn't partisan. This time around obviously it became highly partisan.

Erin Welsh

Right. Comparing the involvement of politics in public health, what was the aftermath of that like in 1918? Or what can we learn from that and apply it to today? Are there any lessons to be learned about this involvement of politics and public health in terms of pandemics?

John Barry

Yeah there are two lessons from 1918 that are pretty clear. Number one, tell the truth. And number two, so-called non-pharmaceutical interventions. Again, what do you do when you don't have any drugs that work? So those are the two lessons and they're intertwined. Cause if you don't tell the truth, you're not gonna get public compliance with the recommendations on public health. If that's going to work people have to believe what you're saying, they have to trust you. And without telling the truth, people are not going to trust you. Some countries around the world did tell the truth from the beginning and did implement NPIs with extraordinary effectiveness. Australia has had a total of 909 deaths which if you adjust for population would be equivalent to 12,000 deaths in the U.S. And we are as we're speaking at 579,000 deaths in the United States. It's the same virus. They have the same tools. They have the equivalent of 12,000 deaths, we have 579,000 deaths. The difference is leadership.

Erin Welsh

Yeah absolutely. And so going back to 1918, what are some of the ways in which countries failed to tell the truth back then? And I wonder if you could expand a bit more on our own, the U.S. honesty during this present pandemic and sort of tracing back the impact that has had.

John Barry

Well again, in the U.S. we were doing things like, the line was that this was ordinary influenza by another name. In Philadelphia, a city I wrote about at length in the book, at a time when they're digging mass graves with steam shovels and priests are actually driving horse-drawn carts down the street calling upon people to bring out their dead, they belatedly finally closed schools, churches, theaters, saloons and so forth. And one of the newspapers actually said, this is a direct quote: "This is not a public health measure. You have no cause for panic or alarm." It's not a public health measure? I mean how stupid did they think their readers were? All that did was tell people they couldn't believe anything they read in the newspaper which of course back then was the source of information.

The result was it spread terror. If you can't believe what you're being told and you're facing this very dangerous, even horrific threat, then you're thrown entirely upon your own devices. Can't trust anybody. Fear is everywhere and it spread fear and panic. And in Philadelphia again as an example when heads of volunteer efforts were calling for volunteers repeatedly, nobody was showing up. I think that was a direct result of the loss of trust, I think society essentially is based on trust and without trust I think society begins to at best fray and at worst fall apart. And in Philadelphia society certainly began to fray and maybe even worse than that.

Erin Welsh

Yeah. Absolutely. And so you touched on something that I think is really interesting which is this source of information that people used to try to get public health information back in 1918 and you said it was primarily through newspapers and that is certainly not the case today where we have the internet, we have social media, and you know this overall interconnectedness makes it very easy to spread both factual information as well as misinformation or even disinformation. And this makes it really challenging to determine what is the truth and what is fiction. And so when people sort of abandoned newspapers and said, 'I can't rely on this anymore,' where else did they go to find public health information?

John Barry

Well that's exactly the problem. There really was no place. There wasn't really an alternative other than a personal physician if someone had a personal physician and if in this incredible onslaught of demand on that physician's time if he could respond and of course they were essentially all male back then. That was part of the problem. Today very good information is very accessible, some people actively choose to ignore it but it's there if they wanna find it. Again that wasn't the case in 1918. There were a couple of places but they were pretty unusual where the public officials in that city were very truthful. San Francisco would be a primary example of that but very unusual.

Erin Welsh

Mm-hmm, interesting. Yeah. So this current COVID-19 pandemic has put public health which is often overlooked in the forefront of both international and national conversation and people are now engaging with public health measures and information in ways that we haven't seen in the U.S. in quite some time. People are doing things like wearing masks, they're not traveling, not gathering in groups, social distancing and so on. How did the 1918 influenza affect public health infrastructure or the general perception of public health among the public?

John Barry

Well many cities had public health agencies, some of them were really good. I mean New York City for example had one that was a major supplier of diphtheria antitoxin, did tremendous amounts of research, was almost like a National Institute of Health. But number one, this disease hit so fast and in most places the public health authorities were complicit with the rest of the government in terms of false reassurance because of the war. You know there wasn't really a relationship with the so-called public health infrastructure. Pretty much every city tried to organize, certainly the larger cities did and they would break the city into districts and so forth and put people in charge of the districts and it all sounded very good on paper but the actual service to those districts left a lot to be desired. It was just so overwhelming and they just didn't have the people for it in terms of numbers of personnel. A huge percentage of the doctors and nurses were actually in the army, they had been drafted or volunteered. So the war really affected everything in terms of what happened inside the United States and how it was handled.

In terms of the spread of the disease I think the war was a very minor factor, there are people who think it spread around the world. I think they're not thinking through what they're saying. We've had influenza pandemics that managed to cross the ocean in the 1600s when it took weeks to cross the ocean. So you don't need an airplane and of course much of the world, I mean all of the world in 1918, you know Africa, South America, they were not at war and they suffered grievously from the pandemic. You know I think the only impact the war had was it probably accelerated the spread in Western Europe a little bit. Maybe more than a little bit but we're still only talking about a few weeks difference.

Erin Welsh

That's really interesting. Yeah I hadn't really thought of that before but that does make a lot of sense. So how did the 1918 influenza affect the way people viewed the role of public health in their day to day lives once the pandemic was over?

John Barry

Well I think we got back to normal quite rapidly. Most of the cities implemented some kind of NPI, it was all city by city, in most cases it wasn't even the state and certainly the federal government didn't play a role in it. But again the duration is so critical. We're talking about several weeks that these rules/restrictions would be in place, almost nowhere was it longer than 5 weeks. And usually it was a shorter period than that. And plus they were less intrusive than what we went through. No businesses were affected unless they were like a saloon or a theater cause essentially every business practically was regarded as essential, war and so forth, all the factories remained open. And there was a tremendous amount of absenteeism where we had data from war industries like shipbuilding, it was generally between 40% and 60% of the workforce was absent, either sick or caring for somebody sick or just afraid. And mines for example, according to Metropolitan Life Insurance over 6% of all the miners aged 18-50 died. You're talking about dying in a matter of weeks again. But when it was over, it was over.

So we having gone through this horrific experience for a period of weeks, everybody, the disease then disappeared, and people went back to normal very quickly. At the same time almost to the day practically, obviously it would be a little different depending where you are geographically and where the pandemic hit, but the war ended on November 11th just about the time in a lot of cities, a lot of parts of the country, the second wave of the pandemic ended. So you had this tremendous exuberance at the end of the war. So things did return to normal quite rapidly. You don't build permanent new habits over a period of a few weeks.

Erin Welsh

That's really fascinating to think about especially in comparison with the COVID-19 pandemic. And so this pandemic is not the first one to happen in our lifetimes or at least not the first disease outbreak or large epidemic but we kind of often have a short attention span and so you mentioned that the 1918 pandemic people wanted to move on with their lives. And given the difference between the 1918 influenza and the COVID-19 pandemic, do you think that the duration, the longer duration of COVID-19 might make this pandemic live in our collective consciousness a bit more vividly for a bit longer?

John Barry

This time around, having to live with this for more than a year, yeah I think it will affect our habits and everything from architecture, I think maybe we'll go back to having windows you can open when they build a new building, that would be nice. Obviously we're talking by Zoom, I think Zoom, it was already here but I think its expanded use is certainly going to continue. Are people gonna go back to shaking hands? I think they probably will. But yeah I haven't gone through this for more than a year. It certainly will have impact on everybody who went through it and I think we'll remember it and write about it more so than in 1918, I think there will be a lot of novels coming out of it and a lot of nonfiction books more so than in 1918. Again what behaviors, how much our behaviors will change, that's not entirely clear but I think it will change at least somewhat.

Erin Welsh

Right, yeah. Definitely. So switching gears a little bit, one of the things I wanted to talk about for this pandemic is how one of the few bright spots has been how the global scientific community has really come together in many ways, collaborating and sharing data, there's been a lot of publishing of open access papers, people working across disciplines. How does this compare to the scientific information sharing during the 1918 pandemic?

John Barry

Well number one of course in the middle of the pandemic the world was still at war so the German scientific establishment was certainly not cooperating with the American scientific establishment. Perhaps even more importantly the communication was entirely different. You couldn't communicate with somebody internationally very easily and of course the whole scientific infrastructure was a tiny fraction of what it is today. At scale you can't compare.

However in terms of actual work, you can. Just as today basically every scientist that had anything to contribute turned his or in a few cases her attention to influenza. And again it moved so quickly. There was a first wave that was hit or miss, entirely missed a lot of places, where it did hit it was extremely mild. And also to quote a scientific assessment at the time, "it had a tendency to peter out." Nobody started work on anything in the first wave, there was no reason to. The second wave shows up in the middle of September and it's gone by the middle of November depending on where you are. Even today with every tool we have available to us, our scientists would not have been able to respond that quickly. And of course back then they didn't have the tools.

Nonetheless it was a tremendous amount of scientific progress made that was sparked by the pandemic. We didn't know what a virus was in 1918, we knew there were these tiny, tiny organisms but didn't know if they were just like bacteria, just small bacteria, whether it was an entirely different kind of organism. And easily the most important discovery that you can link to the pandemic is the discovery that DNA carried the genetic code which launched the entire field of molecular biology. And that actually didn't come until 1944. But there are other things. If you get a pneumonia shot today, a bacterial pneumonia vaccine, that is a straight line descendant of something that was developed in the middle of the pandemic. And there was a lot of other scientific work as well.

Erin Welsh

Yeah. I wanna go back a bit to talk a little bit about these lifestyle changes that you mentioned after the 1918 pandemic. And you know we always think of this period as like the Roaring 20s, this dramatic lifestyle change and economic growth. So can you talk a little bit more about what exactly that looked like and how much of it came as this reaction to the end of the 1918 influenza pandemic or just the end of WWI as well?

John Barry

I think the pandemic probably had some small piece of the sense of fatalism and ennui, you know the so-called lost generation was part of the Roaring 20s too but it was much more the war. The Roaring 20s was worldwide from Sydney, Australia, Berlin, Paris, London. In Europe 20 million people died in WWI. 10 million soldiers. United States lost 53,000 soldiers in combat. And it's the same age group, the same demographics. And 10 million civilians. And it was one of the stupidest wars ever fought, without a doubt. Talk about waste. So I think that was an important part of the attitude of the Roaring 20s, the fatalism, the 'let's party, nothing else matters'.

Also you had in the United States an utter collapse of agricultural prices. The U.S. during WWI had fed France, Germany, Britain, and so forth cause all their farmers were in the army. U.S. farmers greatly expanded the physical acreage that they were farming and there was tremendous overproduction when the war ended and prices utterly collapsed. Farm economies went into depression right after the war and stayed there. Then you had a serious recession in 1920 and 1921. Only after all that did you get to the Roaring 20s. So I think the pandemic had a little bit of impact on it but it was much more the other things, particularly the war.

Erin Welsh

Mm-hmm, yeah. That makes sense. So based on that, do you think we can expect to see any sort of Roaring 2020s or not so much? Are the two veen comparable?

John Barry

You know I think number one, we've already gone through our recession. So we will hopefully have a very strong recovery, looks like we will, I hope we will. I think we will in terms of the economy. People have been penned up for more than a year and there'll be some of that, it won't have the sense of desperation or fatalism or survivor guilt that existed in the 1920s so it'll just be fun, I hope for everybody. So psychologically I think it will be a lot different but in terms of activity there'll probably be some similarity.

Erin Welsh

Yeah. Well looking forward to that, at least.

John Barry

(laughs)

Erin Welsh

So while we can look to the 1918 influenza pandemic for some clues as to what the future might hold for us post-COVID-19, there are also many limitations in using the past to try to understand the future. In part because our global society is so vastly different today than it was 100 years ago. So can you talk a little bit about some of these limitations in applying lessons learned from the 1918 influenza pandemic to today's reality.

John Barry

Well in terms of public health lessons I think they've been confirmed. Number one, tell the truth. And number two, non-pharmaceutical interventions work, socially distancing works. I can tell you cause I was part of their conceptualizing the plan, not the actual writing of the plan, for the federal government that transparency is written into the very...you know it's like the highest priority in the federal plan. And every state plan is pretty much modeled on the federal plan, so transparency is written high up there, highest priority of every state pandemic plan. The problem is as every football coach will tell you, you gotta go out there and execute. The United States didn't execute for political reasons unfortunately. Other countries did execute. So I think the lessons from 1918 are absolutely valid and have been validated by the experiences both in the United States and other countries where they've done it right.

Erin Welsh

Yeah, definitely. It does seem a bit frustrating that these lessons that we've known about for so long, we still fail to actually like you said execute. So what are some things that you hope that we keep from this pandemic, either personally or as a society?

John Barry

Well there will be future pandemics, there's no question. You know we anticipated an influenza pandemic, that's why all the preparation was done. It turned out not to have been influenza virus. I mean the reality is you could argue we got lucky for a lot of reasons which I mean obviously the 1918 virus, infinitely more virulent. If we'd been hit by something like that or even SARS-1 which is 10% case mortality. If the SARS-1 virus had become easily transmissible between people then we would be in a totally different place than we are now. So given the fact that there are influenza viruses that are gonna jump species from animals to humans, they're still out there, there are just a lot of viruses we've never heard of, there are other coronaviruses. There are a lot of threats and the public health lesson, hopefully the next time around, people will have learned that telling the truth matters.

The only time in Trump's entire presidency that he cracked 50% in approval rating was a couple days after he declared war on the virus in March of 2020. It's the only time. People wanna rally around a leader. The irony is for political purposes the best thing he could've done was take on the virus and deal with it. Might very well have been re elected. Instead he said the federal government is a backup. In a national crisis when the head of the federal government says the federal government is a backup? I mean that is not leadership. That is the absence, the abdication of leadership. Even if you love Trump you have to admit that. We needed a national response and I think even the most politicized response in the future may take that into account next time around and realize that the public health lessons from 1918 which as I've made pretty clear I think have been confirmed this time around, that they are not only the best thing in terms of the public health but they're the best thing politically.

TPWKY

(transition theme)

Erin Welsh

Thank you so much John for taking the time to answer all of those questions, I had an absolute blast chatting with you.

Erin Allmann Updyke

I loved getting to listen to it and as always I'm jealous that I couldn't be there. But you did a phenomenal job.

Erin Welsh

Thank you.

Erin Allmann Updyke

Let's do what we always do and go through the top five take-home points from that phenomenal interview.

Erin Welsh

Let's do it. Okay, number one. The two biggest lessons that we learned from the 1918 influenza pandemic are to tell the truth and that non-pharmaceutical interventions such as social distancing and face masks do indeed work. And these two things are interrelated. Controlling or slowing the spread of a widely distributed pathogen like SARS-CoV-2 is only possible through large-scale cooperation. And in order to get that cooperation, political leaders need to be transparent, they need to be honest, they need to be truthful about what they know and what they don't know. This is the only way that they will earn the trust and respect of the public and get the public's cooperation to participate in these non-pharmaceutical interventions which save lives.

And if you don't tell the truth then you lose the trust of the public along with their cooperation. The COVID-19 pandemic has provided us with many examples of countries that told the truth and were able to successfully implement these broad public health measures that helped keep cases lower. But there are just as many, if not more examples of countries that did not do a good job of telling the truth. Countries where leaders failed their people by downplaying the virus or using it for political gain, undermining the public health efforts to control the COVID-19 pandemic.

Erin Allmann Updyke

Yeah. Number two. Speaking of politicization, politics and public health were definitely intermingled during the 1918 influenza pandemic but in a very different way than they have been during the COVID-19 pandemic. Using the U.S. as an example, involvement in WWI affected the way information spread to the public to a very great degree. Essentially all of the information was tightly controlled and any bad news was restricted with the line that bad news was bad for morale. So you had the U.S. government telling their citizens that this was just an ordinary flu and there was no need to panic and that not showing up at your crowded work site meant you weren't a patriot. So you had a lot of fake news going on in 1918. But A) it all came from the government, and B) it wasn't partisan.

Another interesting point along those same lines is that although there has been intense fake news and politicization of public health during the COVID-19 pandemic, we also have the internet which makes it both easier and in some ways more difficult to find factual information. But it's at least out there if you're looking for it. That was not the case in 1918 when if a newspaper printed that this is just ordinary influenza, you had nowhere else to turn to get information. But that doesn't mean that people in 1918 blindly believed what they read. They saw the devastation around them and they knew that they couldn't rely on their government or their newspapers to tell the truth. They were on their own.

Erin Welsh

Yeah. Number three. It was fascinating to hear about the many similarities and differences between the two viruses that caused these pandemics and how those have affected the course of the pandemics. In terms of the viruses, both the influenza virus of 1918 and SARS-CoV-2 are respiratory viruses that can infect deep in the lungs and both can cause significant disease in virtually any organ of the body. But SARS-CoV-2 is much more transmissible and has an overall longer duration compared to influenza virus which has a shorter incubation and transmissibility period. We also have seen big differences in the age groups affected with primarily 18-50 year olds affected in 1918 and of course today COVID has hit people over 65 much harder than other age groups.

And these characteristics of the two different viruses have affected the outbreak and spreads that we have seen as well as the public response. Since influenza had such a shorter duration we saw it burn through towns and cities in a matter of weeks, leaving millions dead in its wake while the COVID-19 pandemic has continued to rage for months. And the fact that older individuals are more likely to become severely ill and die from COVID compared to the 18-50 year olds that were affected in 1918, that certainly has contributed to the public response to the COVID-19 pandemic, allowing some decision makers to write off the severity which would likely never have happened if we had seen the same mortality rate in younger individuals. Overall the 1918 pandemic killed between 50-100 million people which adjusted for today's population would be around I think 225-450 million. A death toll that thankfully we haven't come close to during this pandemic.

Erin Allmann Updyke

Yeah, thank goodness. Number four. Scientific collaboration and accomplishments. These are in some ways kind of hard to compare for a number of reasons. In 1918 influenza swept through cities so rapidly and long distance communication was so much more difficult that the ability of scientists to collaborate was significantly less compared to what we've seen in this pandemic. And on top of that, much of the world was at war during 1918 which certainly didn't lend itself to free and open collaboration. But nonetheless, so many scientific advancements that we rely on today can be credited in some way to the 1918 influenza pandemic.

Early last year many individuals and laboratories pivoted to working on coronaviruses when it became clear that this current pandemic was very serious and the same thing happened in 1918. During and after the 1918 influenza pandemic, nearly anyone whose work was tangentially related began working on influenza. And the work sparked by that pandemic led to things like the pneumonia vaccine or the entire field of molecular biology and so many other scientific accomplishments. Today we have seen both collaboration and innovation on a scale like never before. So who knows what kind of scientific achievements may come in the future as a result of the work that started during this pandemic.

Erin Welsh

It's very cool to think about.

Erin Allmann Updyke

It's kind of exciting.

Erin Welsh

Yeah. Number five. So back to our original question. Where do we go from here? What will life be like in a post-COVID world?

Erin Allmann Updyke

Yeah.

Erin Welsh

Honestly we don't know. (laughs) Can we look to the post-1918 influenza world to give us any clues? Maybe.

Erin Allmann Updyke

Kind of.

Erin Welsh

Kind of. One of the most substantial differences between the 1918 influenza pandemic and the COVID-19 pandemic is in their duration. The 1918 influenza like I said would burn through a city or town in matter of weeks with this intense onslaught of cases and deaths and then nothing. And this is why we see these discreet waves in the pandemic of 1918. This rapid spread meant that compared to COVID-19, very few businesses were substantially affected or affected for very long. There were some shutdowns in 1918 but they didn't last that long either. During the COVID-19 pandemic, our day to day lives have changed, in many cases dramatically. And this change was not weeks long like it would have been in 1918. We're going on over a year now.

Erin Allmann Updyke

Yeah.

Erin Welsh

Of course the longer duration of COVID-19 has been due in part to these non-pharmaceutical interventions drawing out the pandemic but that's for a very good cause, reducing the number of cases and deaths.

Erin Allmann Updyke

Yeah.

Erin Welsh

But what is undeniable is that for nearly a year and a half, the COVID-19 pandemic has been sown into the fabric of our lives in the way we talk to each other, in the way we view other people, in the way we think about our future both in the mundane like meal planning for two weeks at a time and in the more abstract, like what's important to me about my job, my home, my life.

Erin Allmann Updyke

Yeah.

Erin Welsh

We all probably have some muscle memory of what it's like to live in a non-pandemic world but I think it will take some getting used to. In the 1920s the world was coming out of a brutal, deadly war and a devastating pandemic both of which targeted this younger generation most of all. The result was a combination of survivor's guilt and a readiness to get back to normal. Not to forget what happened but just a desire to live and experience new things. And that in part is kind of what led to the Roaring 20s. But I think that we may see something similar in the years to come. But just as the people who lived through the 1918 pandemic never forgot its impact, I hope that we remember some of the lessons of the COVID-19 pandemic and actually apply them to the future. Because this won't be the last pandemic maybe even, likely even without our lifetimes.

Erin Allmann Updyke

Yeah. We've said that before and we'll just continue saying it.

Erin Welsh

It will always be true.

Erin Allmann Updyke

Yeah.

Erin Welsh

Yeah.

Erin Allmann Updyke

Yeah.

Erin Welsh

Well I thought this was a very interesting one to end on, I think it's the first time we've like interviewed someone who's a historian like looking backwards to tell us what to expect.

Erin Allmann Updyke

Yeah. I love it. I mean I think that's something that we kind of often do in our normal episodes, right, is we look to the history of a disease or a pathogen to try and understand the impact that it's had so I think it's kind of nice to wrap up this series for now by looking back to the most recent pandemic that we can compare it to.

Erin Welsh

Yeah, absolutely. Well on that note thank you again so much John for taking the time to chat and for sharing all of that information, it was just so fascinating.

Erin Allmann Updyke

Yeah. And thank you again as well to everyone who has written in to share your story with us whether we were able to share it on the podcast or whether we just read it in our Google Doc, thank you so much, we feel really grateful that we got to listen to and share so many of your stories.

Erin Welsh

Yeah, absolutely. Thank you to Bloodmobile for providing the music for this episode and all of our episodes.

Erin Allmann Updyke

Thank you to the Exactly Right network of whom we are very proud to be a part.

Erin Welsh

Thank you to you, listeners. You've been with us for quite a long journey and we really appreciate you coming along for the ride.

Erin Allmann Updyke

Yeah. And thank you also to all of our patrons, you guys are amazing.

Erin Welsh

Absolutely amazing. Well until next time in one of our normal episodes I guess, wash your hands.

Erin Allmann Updyke

You filthy animals.