Executive Dave Somers: Good morning, and thank you all for being with us and I don't have an update this morning. So I'm going to be really brief. I just wanted to say thank you to all our residents in Snohomish County for your patience and understanding and doing a really good job of just socially distancing and being safe. We have quite a few people out in our parks and getting out and getting some of the fresh air and enjoying the weather we've been having. So I just wanted to say thank you, but I will be here for questions at the end of the session. So I'll just turn it over to Dr. Spitters.

Dr. Chris Spitters: Thank you very much, Executive Somers. And good morning everyone. And I'm going to try something new today. We're going to talk a little bit about some data as it relates to COVID-19 and social distancing and such. So I'm going to try to see if we can get that up. Are you seeing a screen with slides?

Dave Somers: Yes.

Dr. Chris Spitters: OK great. Is it full screen? Excuse me. I just need that check. You see the full screen?

Dave Somers: Yes, it is.

(For slides referenced in the following section, please see the end of this document)

Dr. Chris Spitters: OK. Thank you executive. So first slide I want to show you is, you can see that it's going from left to right. It's time from mid-January up through the present and each of those green bars represents the number of cases we had reported on that date. So that's not the date they got tested or the day the patient became ill, but it's the day the positive test result came to us from the laboratory, and then we start the investigation as we've discussed before to isolate the individual and notify their contacts. And you can see that through most of March we were ascending and kind of flattened out sometime in late March and then things, you know, there's some variability, day to day, as you can see. But then things gradually started coming down through early April into mid, mid-April and overall, though, over the past two to three weeks, although there's a great amount of variability day to day, the curve has flattened in a way that, you know, when things are going up and the curve flattens that's good news. And so that's what we saw about a month ago. But now that things have been coming down somewhat, you know, much down from the peak, we're starting to flatten out in a way that you know we really wanted to keep going down and hoped to get the total numbers of cases reported every day down into a smaller group that bodes better for success as we unlayer our social distancing efforts and it makes the contact investigation efforts more doable and more likely to be successful.

Another look at similar data on this next slide with the blue bars, instead of this being the day of report, this is the day that, in retrospect, when we do speak with the case and we ask, well, when did you first become ill? And so this is a real a little bit better measure and you can see there's a little bit less variability in this. So a little better measure of what's happening at any moment in time. The one thing is you need to discount the very low numbers in the most recent week because we haven't had all those cases reported yet so we, that, those last seven to 10 days are sort of under, under-populated. We haven't completed those yet so, again, overall though if you subtract out the most recent week and then you look at last week, the week before and the week before that, it's really hard to see a further decline akin to what we saw in April. So the message from these two slides is that it appears that now we're in, there was a good
flattening of the curve about a month ago when the increase in cases leveled off. But now, after about a month of sustained declines, then we've sort of flattened out in the latter part of April and early May. So that's, that's one potential concern. And that, mirroring that, the modeling group with the Institute for disease modeling at the university, or affiliated with the University of Washington, has looked at case report data and has estimated what you call this reproductive rate or R, which is a, it's a mathematical figure that indicates the number of new infections created by every existing infection on average across the whole population over time. And so you'll recall that back when things were really coming in fast and a lot of people hospitalized and a lot of new cases being reported, every new case was leading up to about three new cases and so we had that exponential growth where things were going up and the hospitals were getting full, we, school stopped, we kind of, you know, went into the stay home, stay safe approach and then as you follow that curve, the purple one for Western Washington and the red one for Eastern Washington, in both settings we saw the reproductive rate of the infection decline and then in Western Washington that got well below one and getting below one is good because if R equals one and there's one new infection for every existing one then we just we remain flat. If R is greater than one, we get more cases. And so R less than one is what we want to see a decrease in cases. And we had that going into April, but as you can see in the latter part of April it's come back up and really is close to or at about one. So where we had been doing a little bit better in terms of decreasing transmission, now we're, we're back up to one. And just to correlate that as really a validation, this slide looks at traffic mobility in 2020 on a given date between March 1 and May 1 compared to the same date in 2019. And the, the dark green bar is Spokane County. The, the orange bar is King County. We don't have Snohomish County data on this. But the trend seems to hold up, you know, on both sides of the state that we had a good decline with stay home, stay safe efforts in March and then we've seen a gradual increase in mobility over time through the month of April and on into early May. So we've got plateauing declines in cases and increased movement, and that just raises concern for ongoing transmission and possibly returning to greater levels of transmission, which would not only lead to more severe cases and hospitalizations, but also deaths. And of course one of the main things we're trying to avoid is overwhelming the medical care system with just too many people who are sick, sick enough to need to be hospitalized.

So when we go back to this reproductive rate, I do want to, you know, these recommendations we come up with we didn't just pull them out of the sky, there's an idea behind them. And I just want to break this down for you that that reproductive rate, that number of new infections that each existing infection, on average, creates is the product of three things: the number of contacts the infected person has while they're infectious, the risk of transmission to another person per encounter per interaction with them, and then the duration that they're contagious. It's really those three factors that drive the whole thing. And so when we look at what is it that we're doing to try to intervene here, our interventions are aimed specifically at these factors. So when we look at the number of contacts, one, and remembering that that people can be contagious without knowing they're sick, even if they do become sick, the first day or two of contagiousness is usually without any symptoms and then the illness develops. So there's a day or two of transmission before I recognize illness. And for some people they don't get symptoms at all. That might be up to 20-25% of cases. And so they can spread for several days, not knowing that they're contagious. So hence the stay at home, stay safe order and the notion about when you do have to go out staying six feet away from others, that reduces the number of people you have contact with. And then for, and that's for everyone so that we are covering the
people who are contagious and don't know that they can spread it, and then isolation and quarantine, isolation for the people who know they're infected and quarantine for people who are at high risk because they've been exposed to a known case. And again, if they do develop the infection during the first couple of days of it, of being contagious, they won't even know. So that's why we quarantine people. But the thing that's really in people's control in this column and the number of contacts is when it's not necessary to go out, please stay home. If you're not an essential worker or your zone, your sector of the economy has not been opened for activity, we really ask you to stay home and only make essential trips. And when you do go out, stay six feet away from people. Now moving into the next column, if I do have to be in contact with other people, how can I reduce the chance that I might spread it to someone else unknowingly? And so that's where cloth face coverings come in. Cloth face coverings don't do so well in terms of protecting me against others. There's some protection, but it's probably, you know, 25% better than nothing when comparing to like an N-95 mask, which would be 100%. So wearing a cloth face covering is really about the benefit of others. It's about protecting others. And we don't want people using medical grade masks for this. This is really covering up what we might cough, sneeze or breathe or speak out that goes into the air and lands on things and that other people can breathe in. It's about protecting others. Hand hygiene, not touching our faces, cleaning high touch surfaces often, that helps both us and others to keep the environment clean, the things we touch clean, and if we are contaminating things cleaning up periodically. And then those who work in health care and other sectors that come face to face with patients or clients, then they have personal protective equipment with medical grade masks, goggles, gowns, gloves, etc. Now, in the future, there might be a possibility of, if there's a medication that that treats COVID-19 effectively, then it might be something that could be given post exposure to protect people while they're still incubating the infection or even a vaccine or antibody preparation that we use, like say for measles we give vaccine after exposure or that sort of thing, or immunoglobulin to people who have been exposed to hepatitis A. But right now we don't have any such intervention. There are studies going on looking at post exposure prophylaxis in close contacts, but we don't have any information on which to act at this time. So we're really stuck with those kind of traditional methods and want to focus on staying home, staying six feet away from people when you do go out, and cloth face coverings. Because the last column, the duration of infections where we have some intervention that reduces the amount of time someone is contagious, that's out of our control right now. And that's why we're so dependent on self isolation, self quarantine, and these other matters because there's nothing we can give anyone right now that we know that will shorten their duration of infectiousness. Certainly in the future our hope is that there is a curative treatment that not only prevents people from developing severe illness or dying, but also will shorten the amount of time that they can transmit to others, and in some cases vaccines can be helpful after illness gets involved, after someone gets ill there's a vaccine, but that's usually the vaccine is more about preventing the acquisition of infection, not making it better. And then, of course, as time passes, more and more people will have acquired immunity and may, you know, even a year from now if they got reinjected, if they do get reinfected, maybe their immune system will respond quicker and and make them infectious for a shorter period of time.

But this is really my plea to all of us to, you know, this is a long haul. We're in, we've done, as Executive Somers has said, we've done a lot of great work flattening the curve at the front end, bringing it down. But we're at a pause here as our world begins to look toward the opening, that is a moment of caution that the decline in cases appears to have plateaued. I didn't mention yet,
but hospitalizations at a couple of our acute care facilities are gradually creeping up over the last couple weeks. And so that's of concern, and then the traffic movement increasing and generally being correlated with that reproductive rate of the infection and so every, in a way, if you think of it, every trip we make out of the home we're sort of adding a chip, if you will, to the risk of transmission by increasing our contacts. And so it really calls upon us to limit our outings to those that are essential, or if our employment is in a permitted sector now, toward our employment and then getting right back home and then observing those social distancing, cloth face covering, and hygiene measures when we do that. And, but that's my plea, you know, that the opening of sectors of the economy is not a green light for us to all just kind of let go of social distancing and the other aspects of stay home, stay healthy. It's all still in effect, and I hope that this walk that we've taken through how it contributes to the reproductive rate of the infection gives you something to hang your hat on as you think about this and try to struggle through both the economic and the social impacts of what we're asking you to do, which is no small task. I acknowledge that. But we really do need your sustained, disciplined help in keeping this going forward, because these are the only tools in our hands to try to limit the spread of disease and the hospital surge that could occur and that we're trying to prevent while we at the same time try to reopen our world a little bit and get the economy going again.

So with that, thank you for listening and I'll turn it over to Dr. Schoenfeld.

**Dave Somers:** Dr. Spitters, you need to reduce or get us back to the images.

**Dr. Chris Spitters:** Right. Thank you.

**Dr. Paul Schoenfeld:** Good morning, everybody. It's a pleasure being here this morning. And it just so happens that May happens to be mental health awareness month so it's fortuitous that I'm talking this morning.

So this is really a challenging time for our mental health, and I think probably everyone knows that this has been a very difficult time for all of us. Human beings like predictability we really, when there's a red light we want everyone to stop at the red light, when there's a green light we want everyone to go. We're, we're very much used to having a lot of predictability in our lives. We like some novelty, but not too much. And so the lack of predictability that we have right now is stressing many of us out. There's a fear of getting sick, a fear of a loved one getting sick, a fear of global financial meltdown, a fear of uncertain future. And our brains are not really designed well for sustained stress. And what happens is we end up having heightened levels of anxiety, heightened levels of tension, heightened levels of cortisol that courses through our body. And it creates a lot of tension and interferes with our ability to be the adults and children that we hope to be, plus we're also coping with just the challenges for many parents of homeschooling, that's been very difficult for a lot of parents. And just uncertainty about what's going to happen in the future. And this can really influence our mental health, it can result in increased anxiety levels, which has already been very high in our community and in our society, as well as increased depression for individuals that are likely to get that. So it's really important that we take care of ourselves. This is a time where we really need to use all of the coping skills that we have. We need to exercise on a regular basis. We need to find ways of relaxing. We need to make sure that we have good nutrition, and we really need to make sure that we limit alcohol consumption. When families are stuck together for days on end and people are drinking excessively, it's going to result in behavior that we don't really want to see. Sleep is really important. One of the things that I would encourage people to do is to limit screens for at least
an hour before going to bed. Turn off your screen so that your brain can relax and help you get ready for sleep. Limit exposure to television news. I learned that if I'm feeling really calm and my heart rate's down and I want to get my heart rate up, all I have to do is turn on the television news and my heart will start pounding and beating faster. So it's important to get some news, but it's important not to be, you know, to limit that to a reasonable amount. Make sure to get the facts, you know, from the CDC, from the Washington State Department of Health sites, from Snohomish County Public Health Department, getting facts is really, really helpful.

And it's important just to understand that we're going to have, and we're going to experience more anxiety. We're going to have increased irritability, emotional melt meltdowns, fatigue. Really in the 1950s Hans Selye talked about sustained stress, which is what we are undergoing, and he developed a theory called the general adaptation syndrome and what he indicated was that when people first go through the alarm state, which many of us have experienced, and then we try to really resist that alarm state and we try to cope and we try to adapt and that's the really great things about all of us is that we have tremendous adaptability. And then very often, if the stress continues, we start to feel exhausted, and I think probably most of us can acknowledge that from time to time we have more fatigue than we usually have, and this is just our bodies responding to this sustained stress. So it's important if you find yourself reaching that point where you really need to talk to somebody to get help. For example, at the Everett Clinic, which is part of Optum, we're doing video visits and this has become a new way of communicating with patients, but contact your primary care provider for a referral. Don't feel like keeping everything inside is really the best way of going. So it's important for us to really take care of ourselves, to take care of each other, and to really make sure that we are doing some of the things that we know are going to help us get through this. So, questions?

Dave Somers: Thank you, doctor. We have one question that's been submitted asking if the Snohomish Health district has any plans to issue a directive to wear face coverings as King County did yesterday. Dr. Spitters?

Dr. Chris Spitters: Well as I, as I mentioned, I think we do place a high value on, you know, use of face masks in public, especially in indoor settings an/or when you can't really guarantee that you're going to be able to maintain six feet of distance between each other at all times when outside the home. And I think that's a should, not, you know, gee it would be a good idea. We really want everyone to do this. To this point, I, you know, whether we order it or make it a directive or just plead to your sensibilities to make this a community norm, I am hoping for the same outcome. So at the current time, we have no formal legal public process in mind to codify, if you will, what I would like to see as an evolving social norm to use face coverings when out of the home. So that's, that's our current message is at the current time it's voluntary in the sense that there's not an enforcement body making sure this occurs, but I do think it's an expectation that the health district is trying to lay out and socialize with the community and hope that it's adopted. If we are getting down the road and seeing ongoing transmission and noticing that folks aren't wearing face coverings in public settings, then it might be a consideration at that point, it's just my hope that we can just all do this. It's also worth it to keep in mind that there are some people who cannot wear one, either because of medical conditions they have where they can't tolerate the mask, little children where it's a safety issue, but by and large, most of us, young and old, can and should wear cloth face coverings when we're out of the home.

Dave Somers: So I'll just add, we became aware about two weeks ago that Seattle was considering a directive on face masks. And then last week that King County was working with
Seattle on that. We took a look at that directive, draft directive, and discussed it with the health district and our other partners and believe at this time we're urging people to take precautions. Many stores are requiring it, we do see many masks out in our parks and on the streets. So we encourage people that can do that to do that at this time.
COVID-19 Case Reports
Date-of-Report (Jan-May 2020)
COVID-19 Case Reports
Date-of-Onset (Jan-May 2020)
COVID-19 Reproductive Rate (Re) Washington State Mar-Apr 2020

Source: Famulare M. Inst Dis Mod. 2020.
Traffic Volume Relative to 2019
King & Spokane Counties, Mar-Apr 2020

Source: Famulare M. Inst Dis Mod. 2020.
Reproductive Rate ($R_e$)
New Infections Created by Existing Infection

<table>
<thead>
<tr>
<th>Number of Contacts</th>
<th>Transmission Risk</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>How many encounters you have with other people</td>
<td>Probability of transmission per encounter</td>
<td>How long you are contagious</td>
</tr>
</tbody>
</table>
**Re and Preventive Interventions**

### Number of Contacts
- Stay home
- Stay >6’ away
- Isolation
- Quarantine

### Transmission Risk
- Cloth face coverings
- Hand hygiene
- Don’t touch face
- Cleaning high-touch surfaces
- PPE

**Theoretical/Future?**
- Post exposure chemoprophylaxis
- Pre- and/or post-exposure immunoprophylaxis (vaccine)

### Duration
No current intervention

**Theoretical/ Future?**
- Curative treatment
- Vaccine
- Acquired immunity
Summary

- Decline in cases has plateaued
- Hospitalizations slowly increasing
- Traffic/movement increasing
- Key tools within people’s control
  - Stay home as much as possible
  - 6’ distancing buffer when out of home
  - Cloth face covering when out of home
  - Hand hygiene and environmental disinfection