# Appendix A Perspectives from the Scientific Community

#### Participants

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Dr. John Hill, University of Arizona, Astronomy (Presbyterian elder)
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Dr. Kathy Spandler, University of Michigan, Virology (Lutheran elder)
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#### Perspectives on the Public Conversation

- 1. *Guidelines:* Take state and federal guidelines for what they are: a general idea about things to be done. Please remember guidelines published by state and federal agencies incorporate input from both politicians and scientists.
- 2. *Steps and Cycles:* All guidelines should be viewed as (a) steps in a process with (b) the need to plan for cycles of reevaluation. There is no "flip the switch" moment when we will be back to normal, so ongoing, constructive, evaluative conversations are necessary.
- 3. *Phases and Variations:* There are no black and white answers, nor a one-size-fits-all way to respond. There are best practices, common sense behaviors to take, and actions that are medically advisable, but no plan will fit every situation. It is appropriate to distinguish between urban and rural settings as well as large, mid-size, and smaller congregations as leaders craft a plan that maintains health and wellness while allowing for services to resume.
  - a. Key Question: What data source(s) is being used to determine the potential safety for the steps you will take? A loud elder's opinion is not a data source; local health department websites are a date source.

## Initial Steps before Reopening

1. *Assessment:* Church leadership in every congregation should take a practical, hard, introspective look at what their abilities are and who their congregation is: assess the physical space and lay-out of the building and what percentage of the congregation and staff fall into medical at-risk categories. Churches should not reopen until they have a clear picture of who they are and what their options are. Know your demographics!

- a. How many members attend vs. how much square footage is in the meeting space?
- b. What number of attendees can be accommodated safely given the square footage of your space?
- c. Do you have a plan?
- d. What values are guiding your actions steps during all phases and during each, specific phase of reopening?
- 2. *Behavioral Plan and Training*: What will pastors, other staff, elders and/or ushers do when someone (a) does not comply with the guidance/instructions laid out by the congregational leadership (e.g. not wearing a mask or sitting too close to others), or (b) is obviously sick?
  - a. Staff and volunteers should know the plan and be trained in its implementation.
  - b. What will be said, by whom, requesting a specific, defined behavior?
  - c. What actions will be taken if there is non-compliance?
  - d. What is the non-compliant person is the "buck elder" or "sweet (and well-elderly) church lady"?
- 3. *Talk—Honest and Forthright:* Historically we have found churches safe and comfortable. We need to persuade our pastors and congregations that the virus is just as likely to sit on a stack of bulletins or on an offering plate as on the pump at the gas station.

#### **Medical Observations**

- 1. *At-Risk Populations*: The key observation made is that people should discuss their personal situation with their own physician. Accepting this caveat, other observations include a reminder the following underlying conditions are considered to be at greater risk:
  - a. People over 60 however, not everyone is the same, which is why folks should talk to their doctor,
  - b. Anyone with an immune-compromising condition,
  - c. Anyone with poorly controlled diabetes,
  - d. Anyone with pulmonary disease,
  - e. Anyone who has had a transplant.
  - f. Also noted: "Energetic is not the same as low-risk," so folks should talk to their doctor.
- 2. *Agency*: Encourage people to take responsibility for their own health as well as promote caring for the community health.
  - a. Some folks who doctors say are at-risk may not see themselves as at-risk.
  - b. People who are at-risk do not have the right to compromise others.
- 3. *Common Sense:* Given the testing issues discussed below, common sense best practices are vital (e.g. hand washing, wearing masks, maintaining physical distance). It should also be

understood that even these commonsense approaches will not and cannot prevent all spread of infection. For instance,

- a. the advice about maintaining six feet of physical distance is good counsel but viruses have been measured to travel much farther than six feet at times,
- b. the advice about outside spaces being safer than enclosed spaces is true and being down wind of someone who sneezes will be a problem.

#### Scientific Observations

- 1. *Testing:* There was much conversation among the scientists regarding PCR vs. Antibody testing and its efficacy. [Disclaimer: the author did his best to capture what the scientists said but his degree is theological.]
  - a. <u>Value of testing</u>: there is a need to distinguish between the way one's primary care physician and a public health official uses testing information. For public health officials, testing gives general guidance on the penetration of the virus in a community rather; therefore, the error rates discussed below are scientifically sufficient for public health officials as they take action and make recommendations. No testing can give 100%, specific and accurate information for all individuals guidelines. [Note: most communities are not testing sufficiently; infection rates may be considerably higher than reported.]
  - b. PCR (polymerise chain reaction) and Antibody testing both show a 3-5% false positive or false negative. Until these types of tests are fixed, we will have a problem, but they are the tests we have for now. The quality of the testing has improved and continues to improve.
    - Why antibody false positives will be a problem: <u>https://www.npr.org/sections/health-</u> <u>shots/2020/04/15/834497497/antibody-tests-for-coronavirus-can-miss-the-</u> <u>mark</u>
  - c. There appears to be a higher error rate with Antibody testing. PCR testing use a solid primer and reagent solutions that Antibody testing does not have. Further, Antibody testing may not have a stable production quality across different manufacturers.
  - d. The "reinfection" rate is probably a case of the person never fully recovering.
  - e. One of the common cold viruses is similar to Covid-19: they are different but present similarly in the lab! Because the two viruses present similarly in the lab, a test needs to be developed that distinguishes between the two, which is only beginning to happen now. How many of these new tests can be produced and how soon are still open questions.
  - f. It does not appear that previous immunity to a type of SARS will help, as SARS 2's binding strength is ten-times more powerful than SARS 1. We need to develop a tool to distinguish between the different types of viruses.

- g. Sociological issues of access to antibody testing are problematic due to racial stigmatization
  - Sociological consequences of immunity/antibody tests: <u>https://news.umich.edu/without-protections-watch-out-for-unintended-consequences-of-covid-19-immunity-tests/</u>
- h. Reliability of antibody testing creates additional problems for public health.
- 2. *Mathematical Modeling:* The value of guidelines are only as good as the models used.
  - a. Why mathematical modeling is hard: <u>https://fivethirtyeight.com/features/a-comic-strip-tour-of-the-wild-world-of-pandemic-modeling/</u>
- 3. Second Road Map: While the federal guidelines suggest a three-phase reopening of U.S. society, Harvard and The Rockefeller Foundation have combined to issue guidelines that suggest reopening in four-phases. This model has been developed with bipartisan input from both Republicans and Democrats—Rockefeller-sponsored Roadmap to Pandemic Resilience
  - a. Video by Vi Hart: <u>http://vihart.com/how-we-reopen/</u>
  - b. Transcript of the video: <u>https://youtu.be/HhRQxk9QA-o</u>
  - c. Roadmap Report itself <u>https://ethics.harvard.edu/covid-roadmap</u>

## Critique of Draft 1.0 Recommendations

- 1. *Communion*: Do away with the guidelines about communion. Even if the pastor handles the elements with gloved hands and uses tongs, congregants will still have to lift their masks to consume the elements, probably touching the outside of their mask when they do it. "We can't see a way to do touch communion until we know a whole lot more about this virus and our people are able to accept new routines."
- 2. *Bulletins:* Do away with bulletins for now. Even if they are in a stack, folks will need to touch them to grab one, and who wants to be the next person or the last person to touch the bulletins?
- 3. *Offering:* If people drop their offering into a common bucket next to the exit, everyone who handles the money will need to do so wearing gloves.
- 4. *Tone:* Needs to be vastly more pastoral (e.g. God is with us always but that is not a license to behave irresponsibility). Write an introduction: who are we and what are we trying to do?
- 5. *Signage:* See proposed signage for all entrances on next page.

# LET'S KEEP EACH OTHER SAFE WHEN USING THE CHURCH OFFICE

- WASH HANDS UPON ENTERING AND JUST BEFORE LEAVING THE BUILDING
- WEAR A MASK WHEN SHARING OFFICE SPACE
- KEEP YOUR DISTANCE FROM EACH OTHER
- OBSERVE GOOD HANDWASHING FOLLOWING TASKS
- DISINFECT ALL SURFACES BEFORE YOU LEAVE
- SANITIZE YOUR HANDS AFTER YOU CLOSE THE GATE