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Challenges to Prelicensure RN & LPN Programs During the COVID-19 Pandemic

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Outline

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- Primary Research Question
- Research Design
- Methodology
- Analysis Plan
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Background

- The first case of COVID-19 identified on January 20, 2020 has snowballed into 24 million cases, and 400,000 deaths in the U.S. by the following year.
- The COVID-19 pandemic has compounded an already dire need for competent nurses to meet current healthcare demands.
- The pandemic also has significantly impacted the manner in which nursing students gain the necessary knowledge, skills and abilities to ensure competent and safe practice.
- During the Fall 2020 term, many institutions made the shift from traditional in-person lectures and clinicals to online and simulated learning environments.

Primary Research Question

- From Fall 2019 to Fall 2020, to what extent have prelicensure RN, and LPN/VN programs shifted their didactic and clinical curricula to online, and simulated platforms in order to ensure nursing students safely continue to gain the knowledge, skills and abilities to provide safe and competent care?



Research Design

- **What:** Web-survey
- **Who:** U.S. Deans/Directors of RN and LPN programs
- **When:** July and August 2020
- **Why:** States flexibility on clinical environment, and online instruction guidelines

Methodology

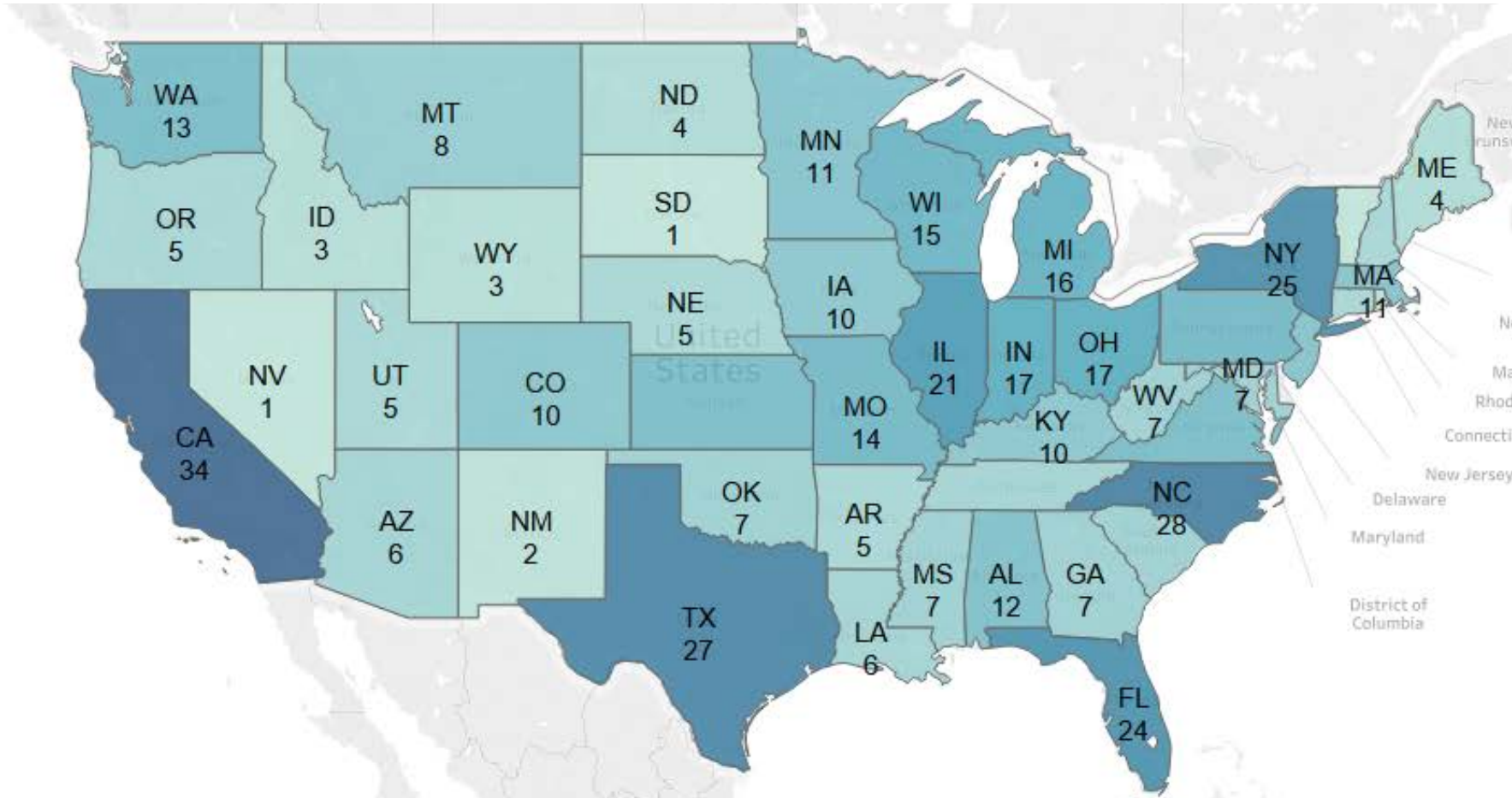


- The survey was administered using Qualtrics (Provo, UT).
- The RN-prelicensure survey was 14 items, across three domains
 - a) Baseline institutional information
 - b) Clinical education changes
 - c) Didactic education changes
- The LPN/VN-prelicensure survey was similarly designed, with the exception of two domains addressing the identification of clinical sites, and virtual simulation.
- Respondents were given five weeks to complete the survey, with reminders one week after the initial dissemination.

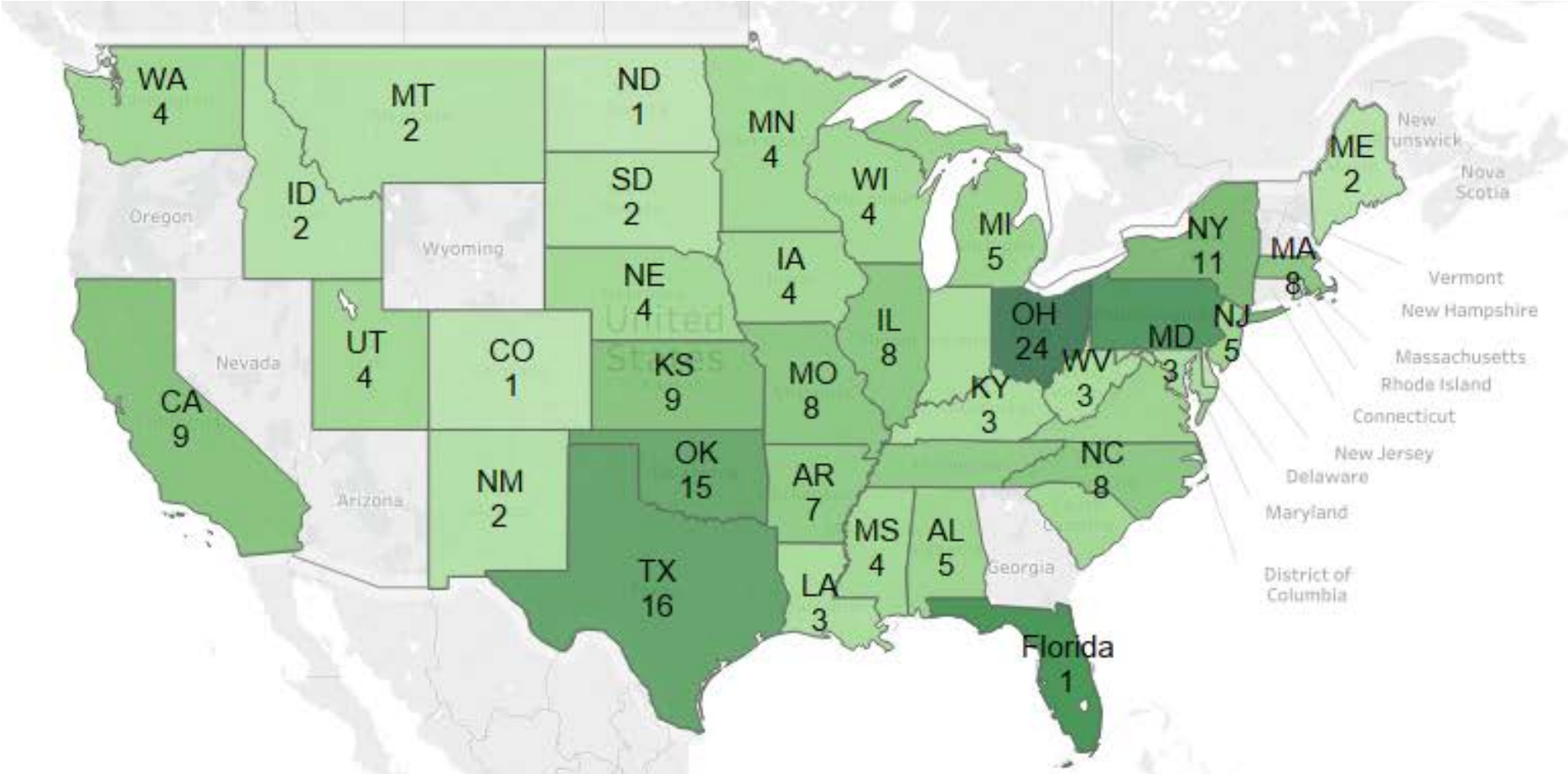
Analysis Plan

- **Final Samples:**
 - 496 RN Programs
 - 256 LPN/VN Programs
- Non-parametric statistical tests were drawn upon to examine the variation in clinicals offered in simulation and online education from Fall 2019 to Fall 2020
- All statistical analyses were conducted using Python

RN Distribution of Responses



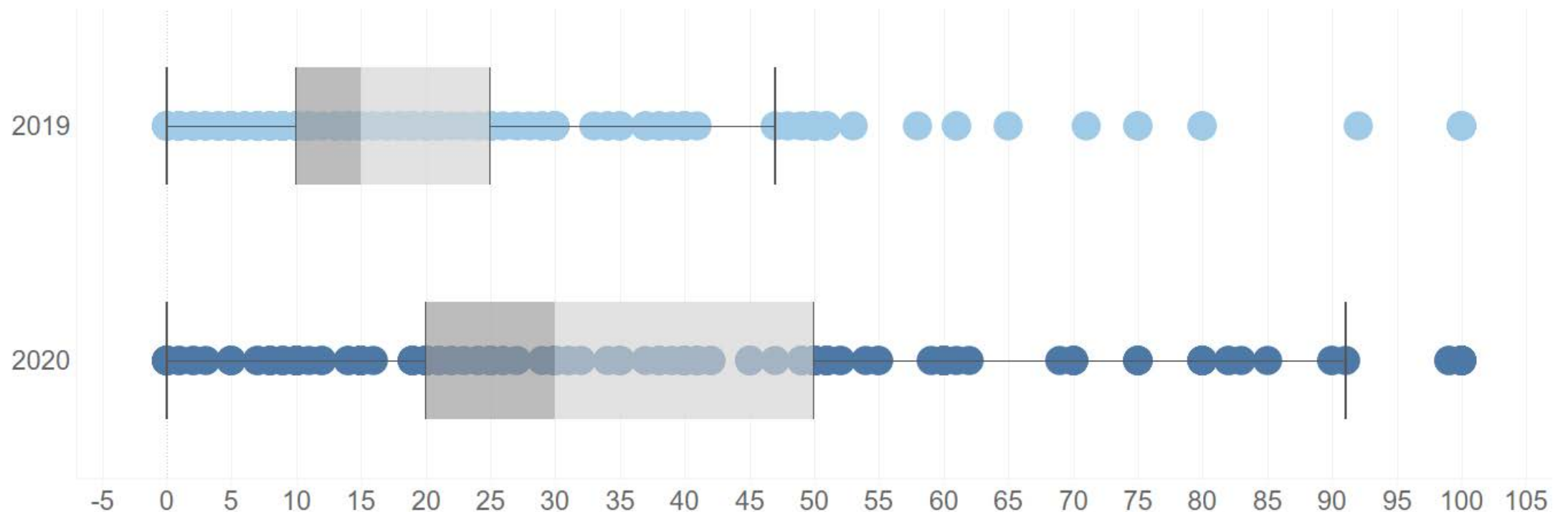
LPN/VN Distribution of Responses



Percentage of **RN** clinical courses completed in simulation: Fall 2019, to Fall 2020

2019 median, and IQR of % of clinicals completed in sim: **15, 10-25**

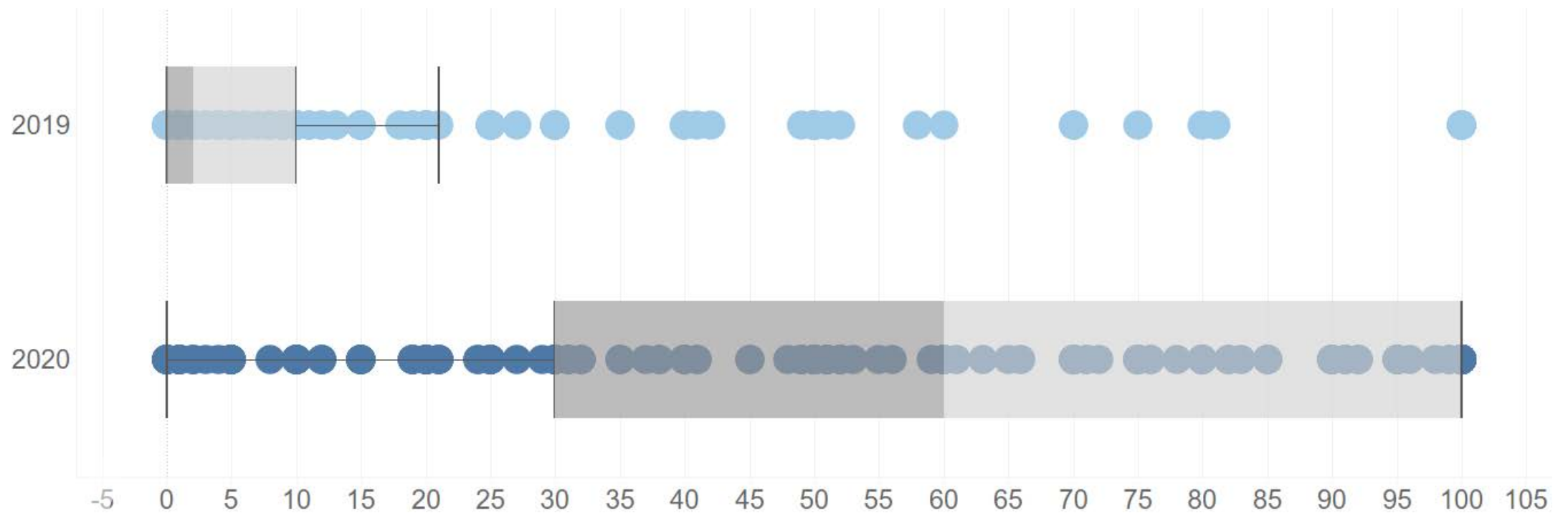
2020 median, and IQR of % of clinicals completed in sim: **30, 20-50**



Percentage of **RN** didactic courses delivered online: Fall 2019, to Fall 2020

2019 median, and IQR of % of courses delivered online: **2, 0-10**

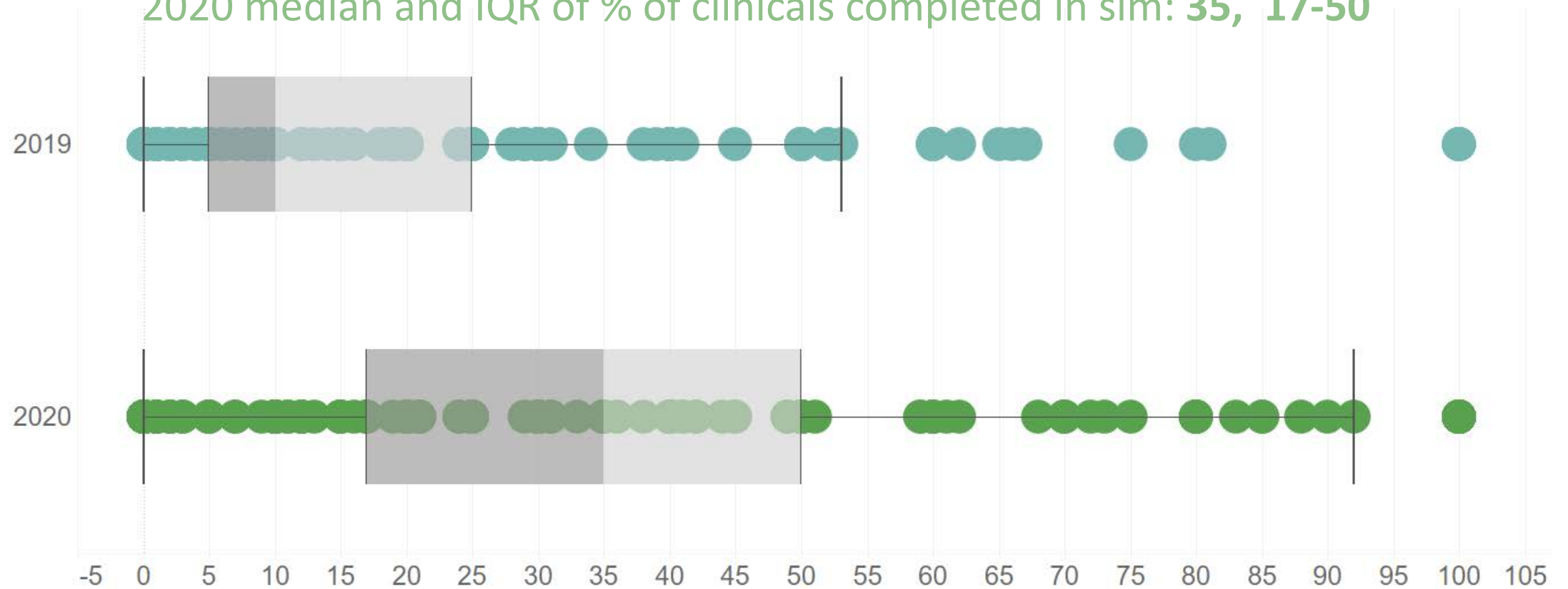
2020 median, and IQR of % of courses delivered online: **60, 30-100**



Percentage of LPN/VN clinical courses completed in simulation: Fall 2019, to Fall 2020

2019 median and IQR of % of clinicals completed in sim: 10, 5-25

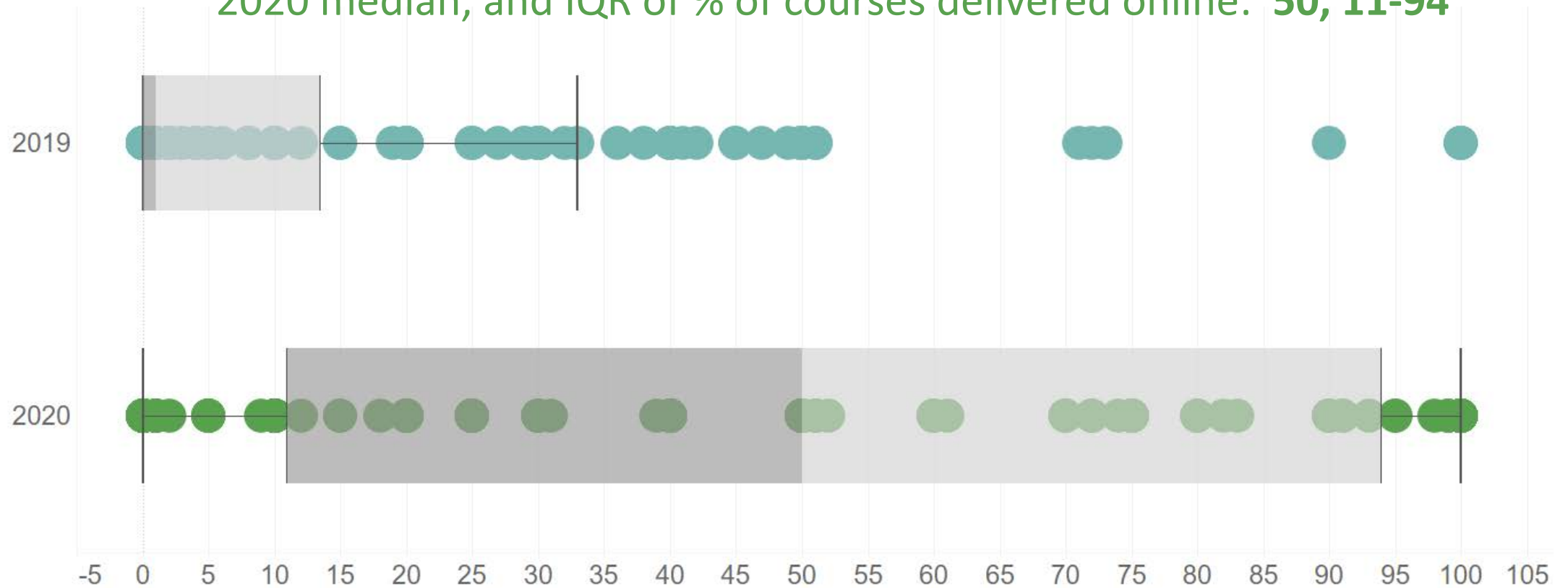
2020 median and IQR of % of clinicals completed in sim: 35, 17-50



Percentage of LPN/VN didactic courses delivered online: Fall 2019, to Fall 2020

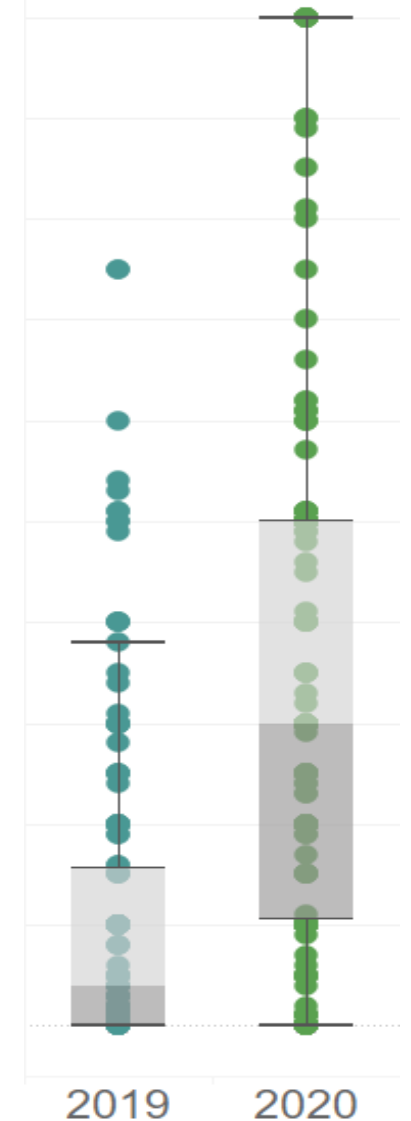
2019 median, and IQR of % of courses delivered online: **1, 0 -14**

2020 median, and IQR of % of courses delivered online: **50, 11-94**

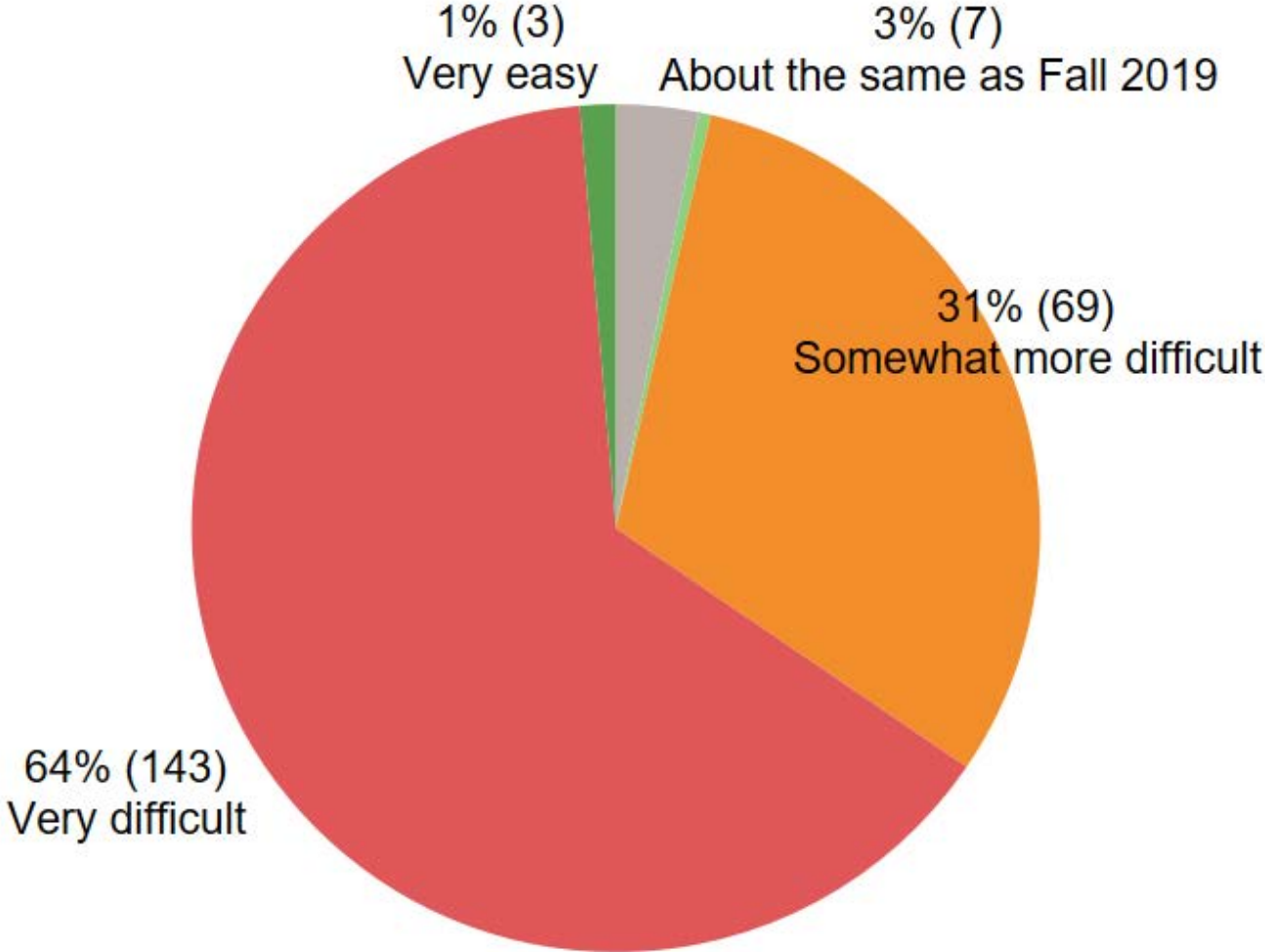


84% (189) LPN/VN programs planned to offer virtual simulation during the Fall 2020 term

- 87% (161) of respondents report using online software packages, such as web-based branching narratives, where students make decisions.
- 59% (109) watch videos
- 34% (62) Perform simulations with instructions from students who view them from a screen in another location



We asked **LPN/VN** programs, how difficult is it to secure clinical placements for Fall 2020, relative to last year?



We asked **LPN/VN** programs, what possible solutions are you exploring?

- 75% (180) indicated they will complete more clinicals in sim.
- 17% (42) indicated they will take fewer students.
- 14% (34) will adjust term length to increase the number of clinical experiences.
- 11% (28) will appeal to their state board of nursing.
- 10% (24) will delay graduation.
- 34% (84) indicated they will develop an alternate solution.



Summary

- In response to the COVID-19 pandemic RN and LPN/VN programs have radically shifted their didactic curriculum delivery model from traditional in-person lectures to online environments.
- To a more moderate degree both RN and LPN/VN prelicensure programs have offered more clinical curricula through simulation.
- Relative to the Fall 2019 term, the majority of LPN/VN programs have found identifying potential clinical placements very difficult in fall 2020.
- This study is part of larger study examining the effect of this shift in curricular delivery models, we expect to see more results on education and employment outcomes in late 2022.

Discussion