



# Evaluation of a Novel Infectious Disease Curriculum in the Harris County Jail Re-Entry Program

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## Background

- Incarceration is a powerful social determinant of health, influencing health outcomes, access to medical care, and further compounding existing health inequities
- People who experience incarceration face a disproportionate likelihood of adverse health outcomes--particularly members of lower income communities, racial and ethnic minorities, and those who identify as transgender or non-binary
- Rates of infectious disease are higher in the incarcerated population:
  - Rates of HIV infection are 4-6 times greater than the general population
  - One in three incarcerated individuals is estimated to have hepatitis C
  - 4.2% of all tuberculosis cases occur in correctional facilities while less than 1% of the American population is incarcerated at any given time
- Each additional year in prison produces a 15.6% increase in the likelihood of death for parolees, translating to a 2-year decline in life expectancy for each year served

## Objectives

- Design and implement a curriculum on infectious disease symptomatology, transmission, prevention, and treatment targeted toward incarcerated populations
- Improve health literacy and promote healthy behaviors
- Measure attitudes regarding infectious disease and prevention in an incarcerated population

## Methods

- After conducting a review of the literature, we identified four key concepts to cover in our course: biological foundations of infectious disease, STIs, bloodborne pathogens, and respiratory diseases
- Four weekly sessions (each an hour in length) presented via Zoom to a cohort of 18 men in the re-entry program at the Harris County Jail
- Primary measures consisted of a set of pre- and post-course surveys that included multiple choice questions assessing health knowledge and Likert scales evaluating healthcare attitudes and confidence\*
- We also elicited narrative feedback from participants

## Results

- Narrative feedback was overwhelmingly positive:

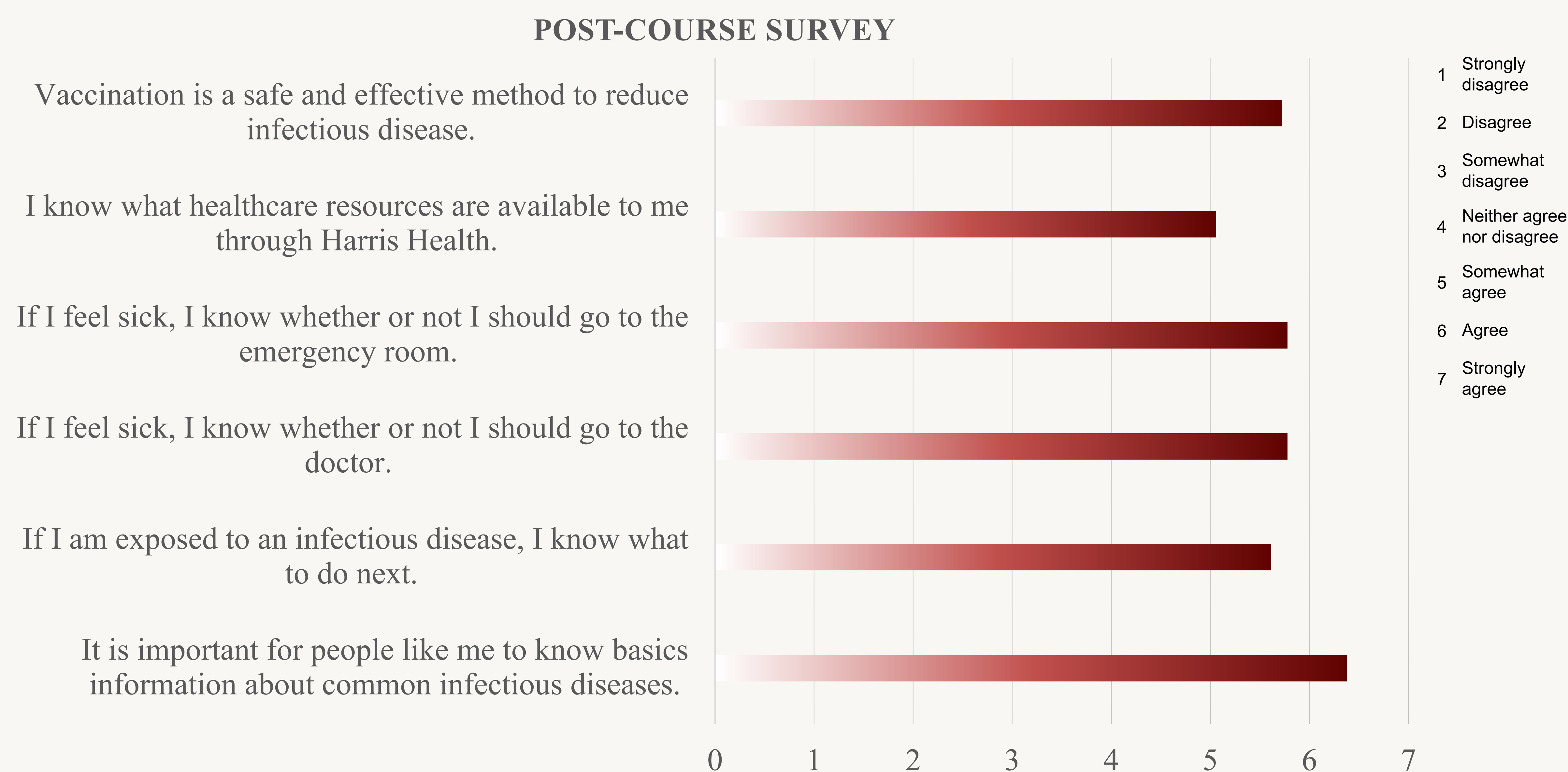
*“Very educational and helpful”*

*“I think the training was very informational. I can tell other people about what I learned.”*

*“I would like the class to expand on different health topics”*

*“I can tell my kids and make sure my kids know what to do.”*

- Overall, students felt that the modules on disease prevention and respiratory illness were the most valuable
- Preliminary results indicate that participants feel the material is relevant to their lives



\*Unfortunately, due to logistical challenges inherent in working with this population, we did not receive the full cohort of pre-course surveys and therefore cannot yet calculate change in health knowledge and behavior

## Conclusions

- An 18-person cohort of incarcerated individuals at the Harris County Jail self-reported positive impressions of a four-week infectious disease curriculum. Constructive feedback and health attitudes will be considered to improve the course content for future sessions.

## Future Directions

- We will continue to teach this curriculum and gather additional data to analyze its impact on participants' attitudes and health knowledge
- We are now able to offer classes in-person which will likely improve the learning environment and rapport with participants
- Additional analyses are needed with larger cohorts to evaluate for statistical significance in measures
- We plan to tailor the curriculum to maximize learning and emphasize actionable health-promoting behaviors
- We are offering additional courses, including general and mental health

## References

1. Wilper, A. P., Woolhandler, S., Boyd, J. W., Lasser, K. E., McCormick, D., Bor, D. H., & Himmelstein, D. U. (2009). The health and health care of US prisoners: results of a nationwide survey. *American Journal of Public Health*, 99(4), 666-672.
2. Maruschak, Laura M. "HIV in prisons, 2001–2010." *AIDS* 20.25.10 (2012): 1-11.
3. Varan, Aiden K., et al. "Hepatitis C seroprevalence among prison inmates since 2001: still high but declining." *Public Health Reports* 129.2 (2014): 187-195.
4. Fazel, Seena, and Jacques Baillargeon. "The health of prisoners." *The Lancet* 377.9769 (2011): 956-965.
5. Stephenson, Becky L., et al. "Effect of release from prison and re-incarceration on the viral loads of HIV-infected individuals." *Public health reports* 120.1 (2005): 84-88.
6. Hall, Donna, et al. "Major mental illness as a risk factor for incarceration." *Psychiatric Services* 70.12 (2019): 1088-1093.
7. Smith, Maggie, and Tomoko Udo. "The relationship between age at incarceration and lifetime suicide attempt among a nationally representative sample of US adults." *Community mental health journal* (2022): 1-13.
8. Lambert, Lauren A., et al. "Tuberculosis in jails and prisons: United States, 2002– 2013." *American Journal of Public Health*, 106.12 (2016): 2231-2237.