COVID-19 Tracing Apps – Security, Privacy, and Public Policy Issues for Higher Education

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Overview

- Contact tracing overview
- Digital contact tracing tools
- Proximity tracing/Exposure notification tool landscape
- Security, privacy, and public policy issues for Higher Education
- Recommendations for Higher Education

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Contact tracing overview

- Core principles as defined by CDC (https://www.cdc.gov/coronavirus/2019-ncov/php/principles-contact-tracing.html)
    - Part of patient support process for suspected or confirmed infection
    - Public health staff work with patient to help them recall everyone they have come in contact with while infectious

Contact tracing overview

- Core principles (continued)
  - Contacts are given education, information and support to understand
    - their risk
    - what they should do to separate from others who are not exposed
    - monitor themselves for illness
    - the possibility they could spread infection while not feeling ill

Contact tracing overview

- Core principles (continued)
  - Contacts encouraged to stay home and maintain physical distance of at least 6 ft. until 14 days post-exposure

Contact tracing overview

- Contact tracing is a specialized skill that requires training and knowledge
  - Patient confidentiality
  - Medical terminology
  - Interpersonal skills
  - Crisis counseling
  - Resourcefulness
  - Understanding of when to refer to others
  - Cultural competency for local community

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Digital contact tracing tools

- Two categories of tools as defined by the CDC (https://www.cdc.gov/coronavirus/2019-ncov/downloads/digital-contact-tracing.pdf)
  - Case management tools
  - Proximity tracing/Exposure notification tools

Digital contact tracing tools

- Case management tools
    - Organization or entity use
    - Used to support "traditional" contact tracing methods
    - Streamlines electronic capture and management of patient and contact data
    - Can integrate workflows with surveillance systems and other workforce management tools

Digital contact tracing tools

- Case management tools (continued)
  - Allow patients to self-report contacts
  - Generate automatic notifications via phone, email or SMS
  - Track contact history with patients

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Digital contact tracing tools

- Proximity tracing/Exposure notification tools
  - Individual use
  - Can feed into case management tools
  - Uses Bluetooth or GPS to estimate physical proximity and duration of contact with others
  - Help patient remember recent events and locations
  - Notify individuals of potential exposure

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Proximity tracing/Exposure notification tool landscape

- Numerous tools currently being offered in app stores
- Some are actually malware
- Some are badly written and leak data

Security, privacy, and public policy issues for Higher Education

- Students
  - Your data may be breached by criminals
  - Your data may be used in unintended ways
    - Misconduct proceedings
    - Criminal proceedings

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Security, privacy, and public policy issues for Higher Education

- Albion College – Michigan
  - Private institution
  - Mandated use of "Aura" contact tracing app
  - Required students present QR code to enter campus and buildings
  - Students reverse engineered the app
  - Discovered database creds hard-coded in the app

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Security, privacy, and public policy issues for Higher Education

- University of Tennessee
  - Mandatory "Roll Tide" inserted here
  - Public institution
  - Mandated student compliance with contact tracing
  - Potential punishments included expulsion for failure to comply
  - "...the goal of contact tracing is not to be punitive..." – Dr. Spencer Gregg
  - "When you fail to participate, you're failing to help others in need and that's certainly not consistent with the volunteer spirit" – Dr. Spencer Gregg

Security, privacy, and public policy issues for Higher Education

- Universities
  - To mandate or not
  - Creating a target for criminals to attack
  - Creating a data source that can be subject to subpoena
  - FERPA and HIPAA responsibilities for collected and stored data
  - Data lifecycle policies

Recommendations for Higher Education

- Due diligence for both case management and proximity tracing vendor
- Thorough security and privacy review of case management and proximity tracing apps
- Create a privacy governance board

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Recommendations for Higher Education

- Be transparent about data
    - Where stored
    - Who has access
    - Terms of use
    - Terms of non-use
    - Length of time data will be held
    - Who will it be shared with, and under what circumstances
- Over communicate intent and tracking results

Thank you for your attention!

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