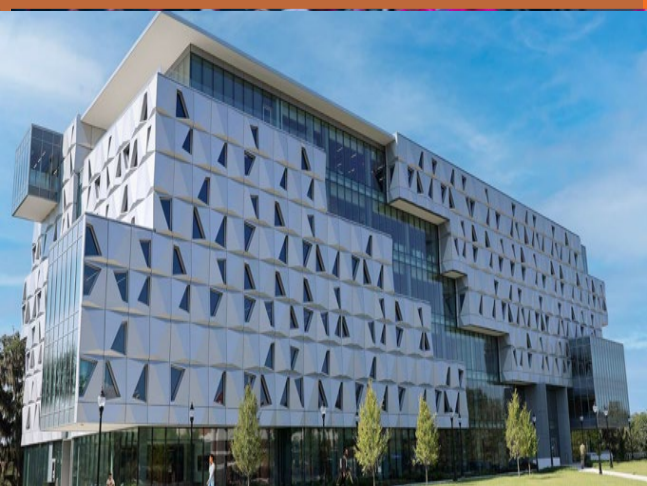




Data Linkages in Cancer Surveillance Models

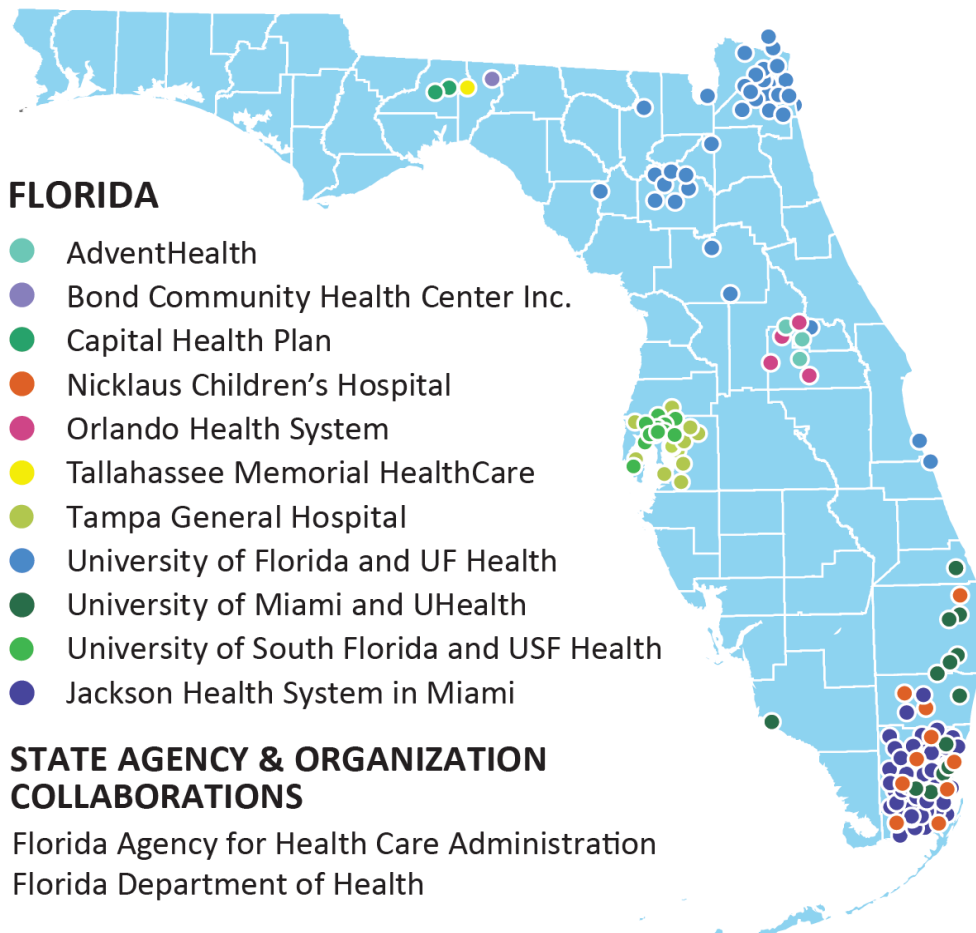


Name: Betsy Shenkman, PhD
National Cancer Policy Forum
July 29, 2024



Patient-Centered Outcomes Research Institute numbers CDRN-1501-26692, RI-CRN-2020-005 and RI-FLORIDA-01-PS1

University of Florida Clinical and Translational Science Institute, which is supported in part by the NIH National Center for Advancing Translational Sciences: UL1TR000064



ALABAMA
University of Alabama at Birmingham



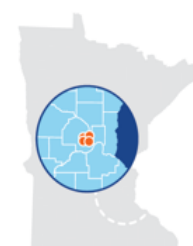
GEORGIA
Emory University



ARKANSAS
University of Arkansas for Medical Sciences



CALIFORNIA
UC-Irvine Regional Campuses

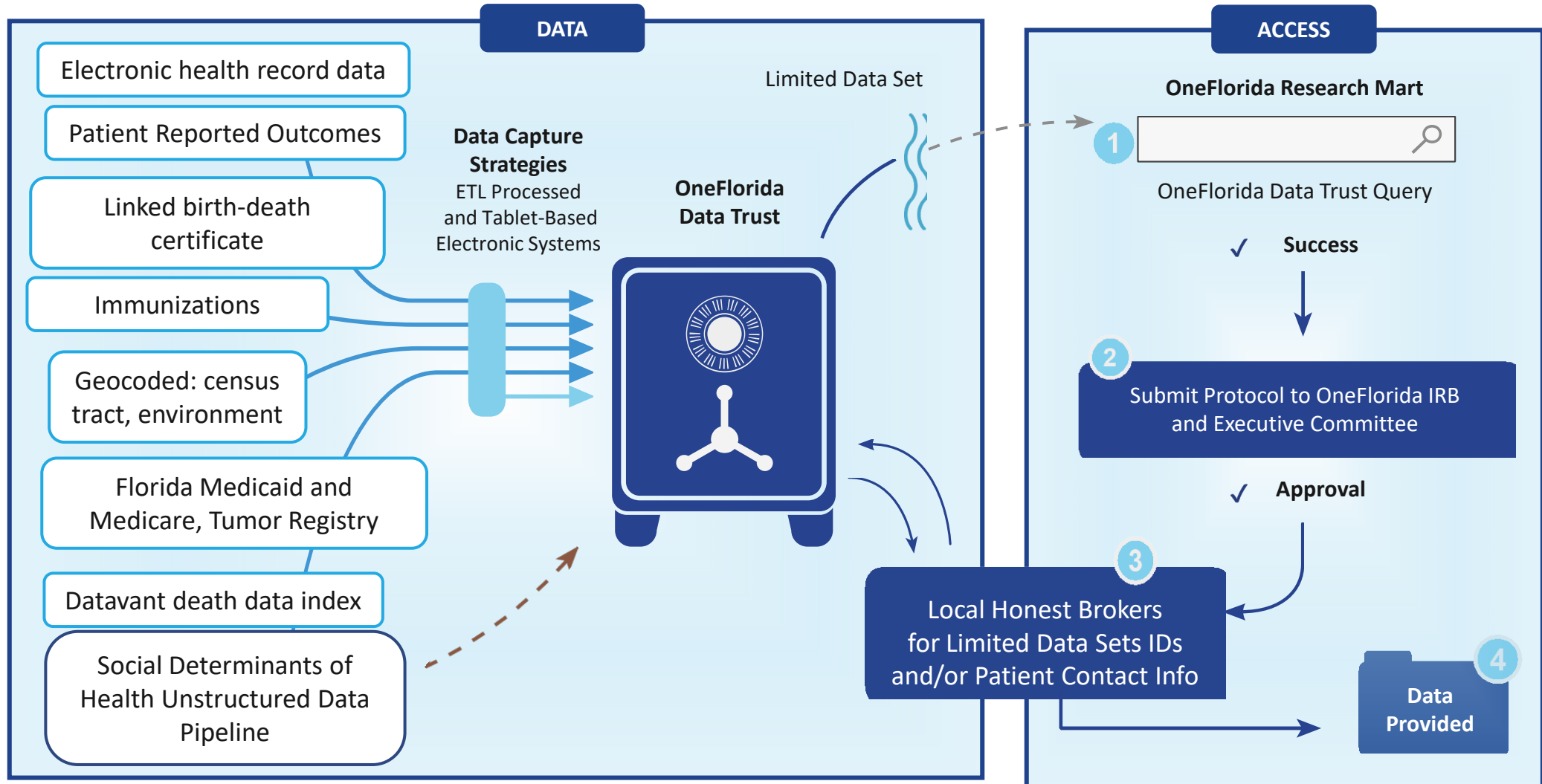


MINNESOTA
University of Minnesota

Electronic Health Records Clinical Data 2012 to Present	
State	
Florida	19 Million
Minnesota	2.9 Million
Georgia	2.1 Million
California	1.9 Million
Alabama	1 Million
Arkansas	1 Million
27.9 Million Patients	



Data Trust | A Central Data Repository to Facilitate Research



- All patients can be reidentified with IRB approval
- Data linkage: privacy preserving software
- Data Use Agreements with State and health partners
- Uses PCORnet Common Data Model for EHR

~80% of important clinical information is locked in notes (adverse events, symptoms, family history)

All UF Health notes (>600G, 82 Billion words)

GatorTron (2021)

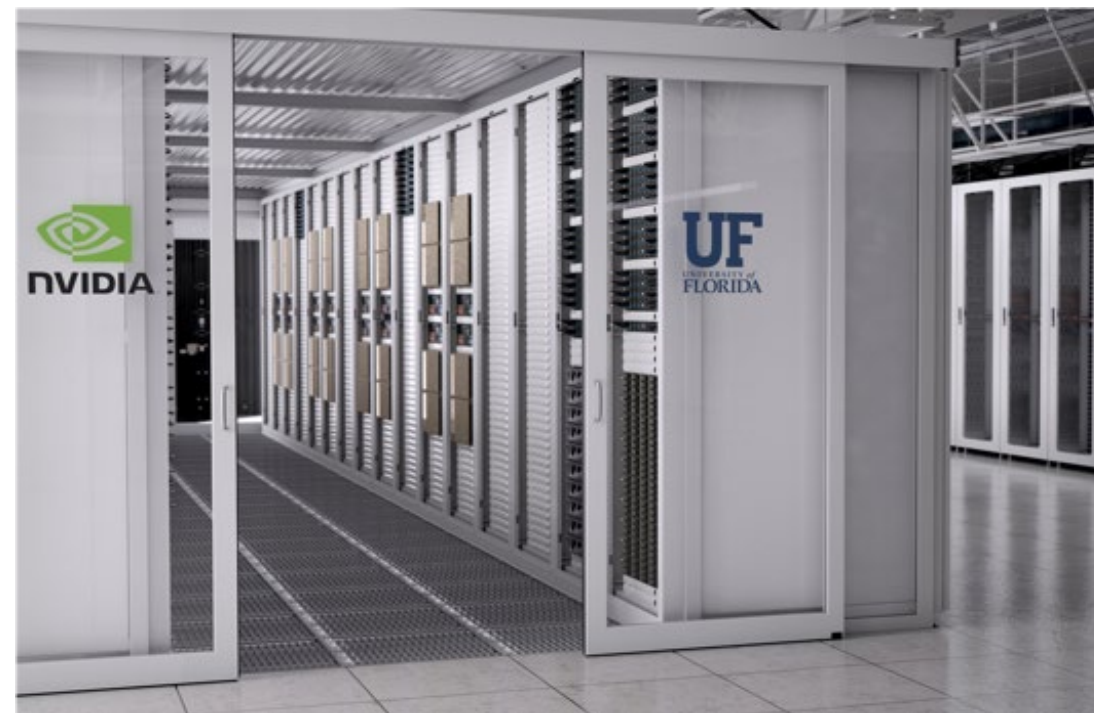
- 9 Million parameters
- Trained using >1000 GPUs

GatorTronGPT (2022-2023)

- Uses GPT-3 (like ChatGPT and GPT-4) model
- 5 Billion parameters and 20 Billion parameters

Yang, X., Chen, A., PourNejatian, N...Flores, M...Shenkman, E...Bian J...Wu, Y et al. A large language model for electronic health records. npj Nature Digit. Med. 5, 194 (2022)

Wu, Y..Flores, M. A Study of Generative Large Language Model for Medical Research and Healthcare, npj Nature Digit. Med, (2023)

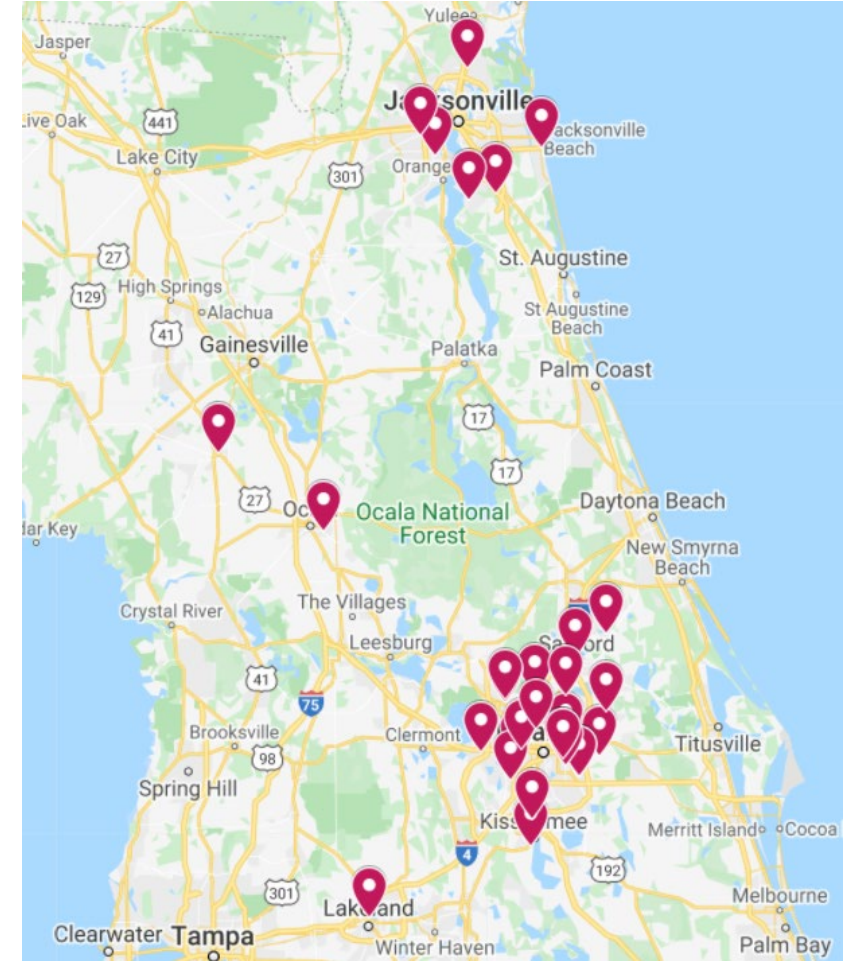




Text and Talk: A multi-level intervention to increase provider HPV vaccine recommendation effectiveness

Stephanie Staras, PhD, University of Florida

- OneFlorida+ Data Trust used to:
 - Link FloridaShots to EHR
 - Identify physician practices with varying HPV vaccination rates
- Comparison of
 - Parent-targeted text messages
 - Clinician-targeted recommendation strategies
- Enroll 10,000 11 to 12-year-olds across 30 primary care sites
- Track immunization rates



Florida has the 5th highest rate of HPV-related cancers,
and the 45th highest rate for vaccine initiation

Lung Cancer Screening

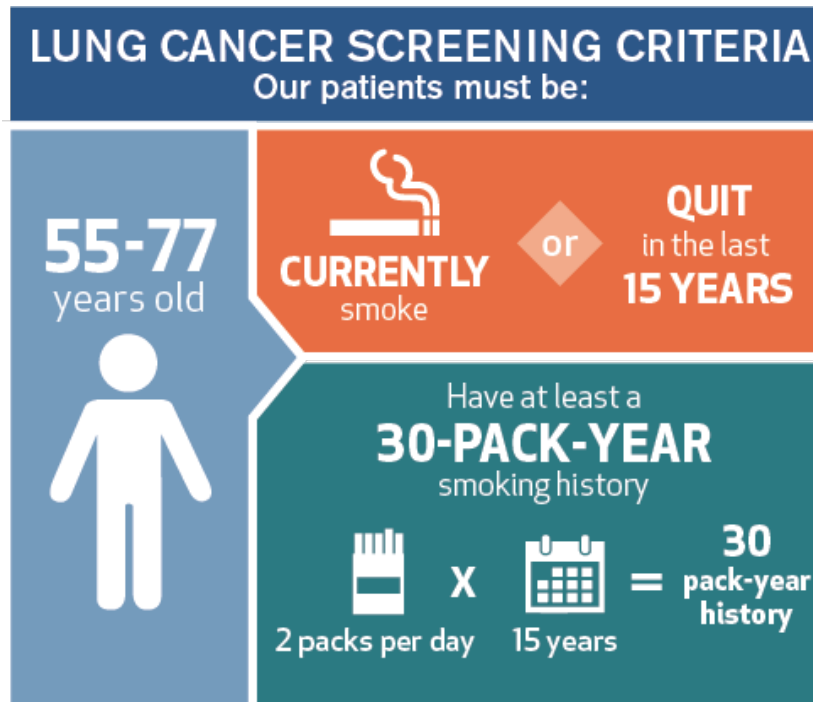
Jiang Bian, PhD

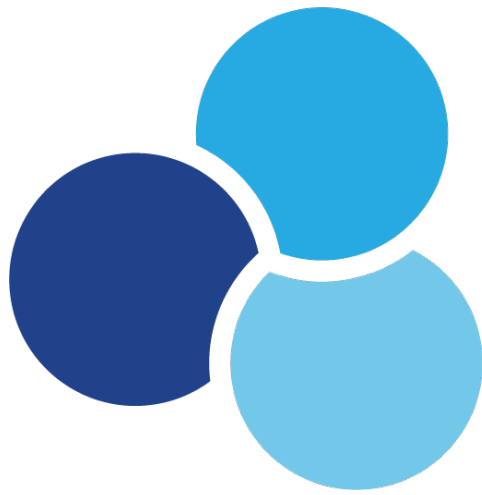
Lung Cancer Screening

- Follow-up requires invasive diagnostic procedures
- Post-procedure complications (17% in Florida)

Using OneFlorida⁺ Data and AI to:

- Identifying those at greatest risk for lung cancer to better target screening efforts
- Identifying the benefits and harms in current practice
- Helping physicians and patients make informed decisions





OneFlorida⁺

Clinical Research Network

Questions?

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