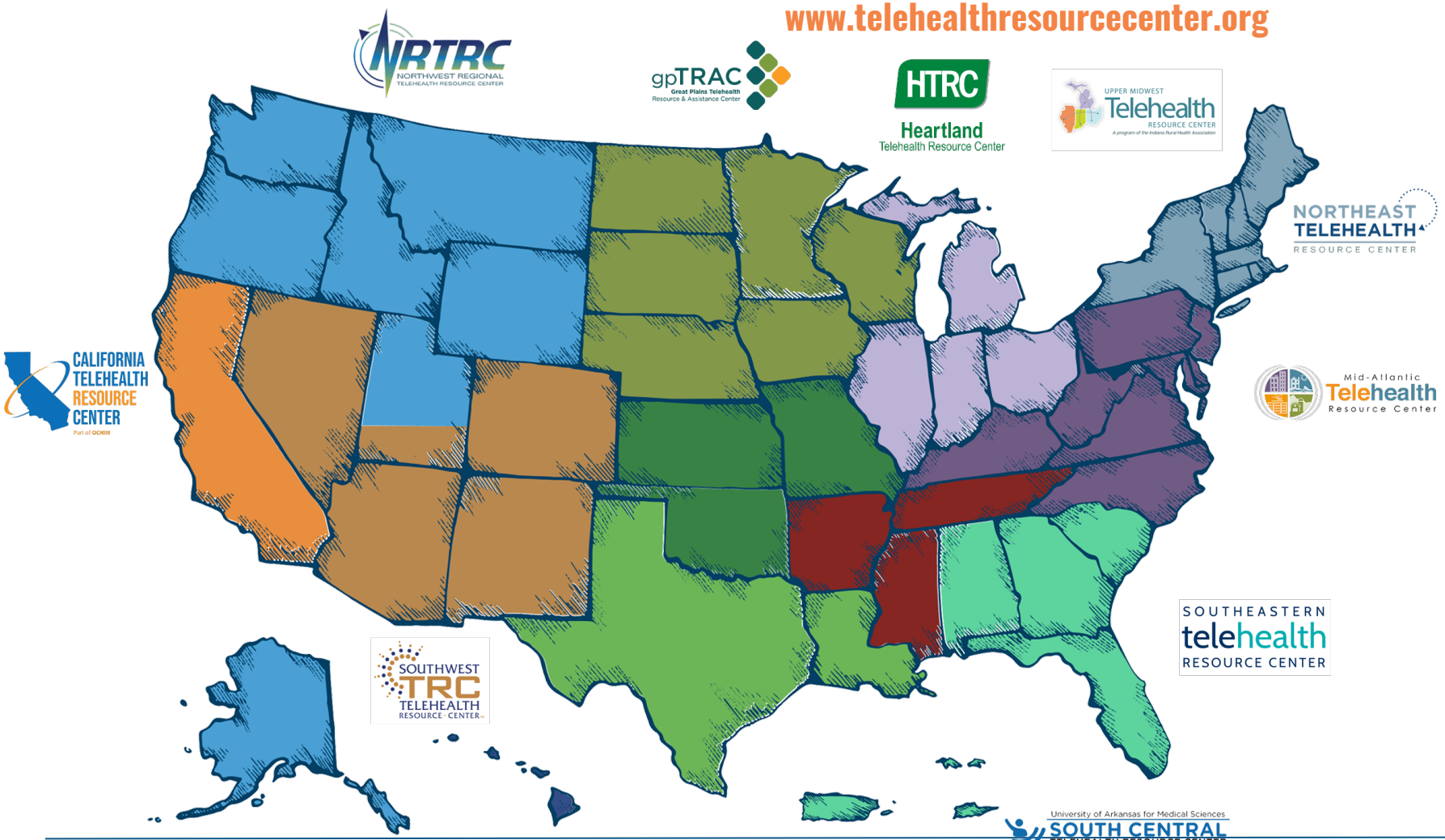
NATIONAL CONSORTIUM OF
TELEHEALTH
RESOURCE CENTERS

Innovation & Integration of Telehealth into Population Health

April 21, 2022

HRSA Funded Telehealth Resource Centers

www.telehealthresourcecenter.org



NRTRC	gpTRAC	NETRC
CTRC	HTRC	UMTRC
SWTRC	SCTRC	MATRC
PBTRC	TexLa	SETRC

12 REGIONAL RESOURCE CENTERS

TTAC TelehealthTechnology.org

CCHP

2 NATIONAL RESOURCE CENTERS

Webinar Tips and Notes

- Your phone &/or computer microphone has been muted.
- If we do not reach your question, please contact your regional TRC. There may be delays in response time: https://telehealthresourcecenter.org/contact-us/
- Please fill out the post-webinar survey.
- Closed Captioning is available.
- Please submit your questions using the Q&A function.
- The webinar is being **recorded**.
- Recordings will be posted to our YouTube Channel:

  https://www.youtube.com/c/nctrc

Innovation and Integration of Telehealth into Population Health

Michael Hasselberg, PhD, RN, PMHNP-BC
Chief Digital Health Officer

MEDICINE *of* THE HIGHEST ORDER

UR MEDICINE

Disclosures

I have no financial relationships with a commercial entity producing healthcare-related products and/or services relevant to the context I am presenting


ALIVE IN THE WILD
ENTRY


343-6-1
343-5-1
343-4-1
343-3-1
GOOD WORKS
1993
Statistical Abstract of the United States
MARIANNE MOORE
Say's Law
READINGS IN THE PHILOSOPHICAL PROBLEMS OF PARAPSYCHOLOGY
edited by ANTONY FLEW
CALIGARI TRUESPACE2 BIBLE
HEALTH WEALTH George Anders
PETERSON FIELD GUIDES BIRDS OF BRITAIN & EUROPE
BIRDS
Managing Finance for Quality
YAN-KIT'S CLASSIC CHINESE COOKBOOK
The Icon Programming Language
The New York Times Crossword Puzzle Dictionary Third Edition
Looking Good in Print Deluxe CD-ROM Edition
Jimi Hendrix Sessions
McDermott
LITTLE, BROWN
THE NORTHERN EXPOSURE BOOK LOUIS CHUNOVIC
HIGH-SPEED DIGITAL DESIGN A HANDBOOK OF BLACK MAGIC
Johnson Graham
American Heritage Dictionary of American Quotations
Margaret Miner and Hugh Rawson
At the Crest of the TIDAL WAVE
Now Classics Library
Eccles/Crane
GOLF DREAMS
Reinventing Electric Utilities
Angela's Ashes Frank McCourt
THE DILBERT PRINCIPLE SCOTT ADAMS
DAVID FOSTER WALLACE INFINITE JEST
BORN to REBEL
Birth Order, Family Dynamics, and Creative Lives
SIMULATION MODE & ANALYSIS
ECONOM ANAL
BAD LAND
AMERICAN ROMANCE


Publish
Book
Authors
Readers
Self-publishing
(2005)
E-Commerce
(1997)
E-Reader
(2007)

$$E_{XY} = \sum_{c \in X} \left[1 - (1 - P_Y)^{|c|} \right] = \sum_{c \in X} \left[1 - \sum_{k=0}^{|c|} \binom{|c|}{k} (-P_Y)^k \right]$$

$$= \sum_{c \in X} \left[1 - \left[1 + \sum_{k=1}^{|c|} \binom{|c|}{k} (-P_Y)^k \right] \right] = \sum_{c \in X} \sum_{k=1}^{|c|} (-1)^{k+1} \binom{|c|}{k} P_Y^k$$

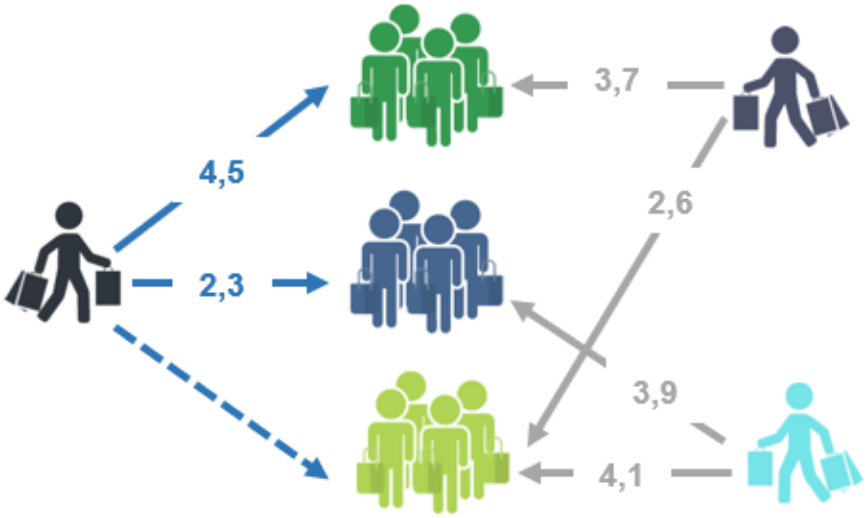
$$= \sum_{c \in X} \sum_{k=1}^{\infty} (-1)^{k+1} \binom{|c|}{k} P_Y^k \qquad \left(\text{since } \binom{|c|}{k} = 0 \text{ for } k > |\, c \,| \right)$$

$$= \sum_{k=1}^{\infty} \sum_{c \in X} (-1)^{k+1} \binom{|c|}{k} P_Y^k \qquad \text{(Fubini's theorem)}$$

$$= \sum_{k=1}^{\infty} \alpha_k(X) P_Y^k \qquad \text{where } \alpha_k(X) = \sum_{c \in X} (-1)^{k+1} \binom{|c|}{k}.$$

Smith & Linden, 2017

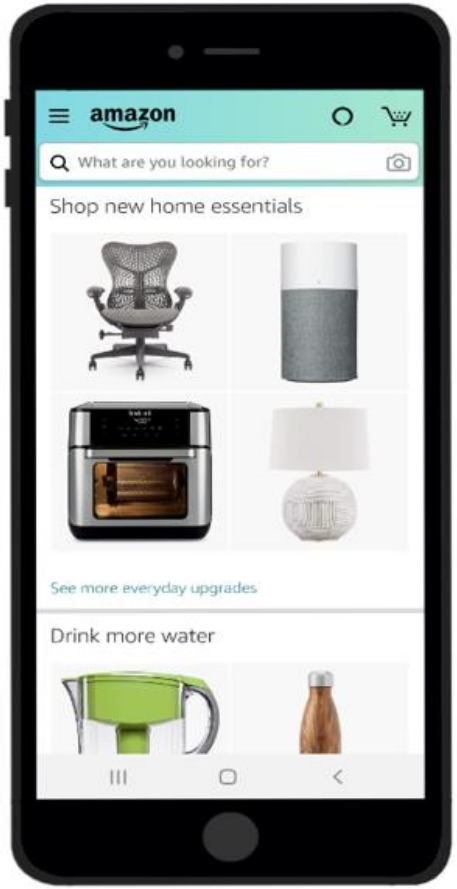
Item-item Collaborative Filtering

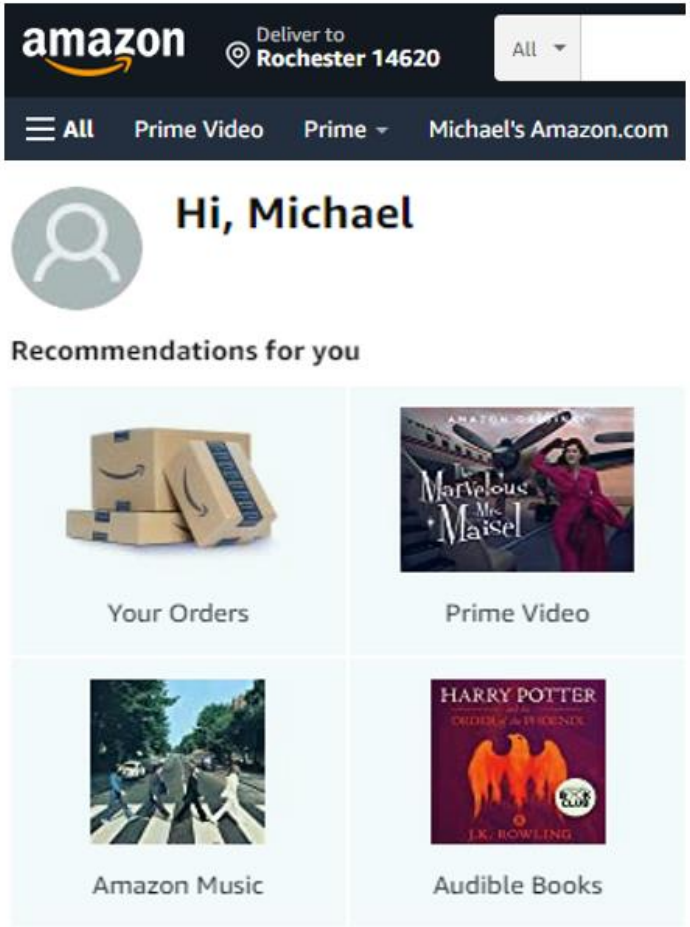


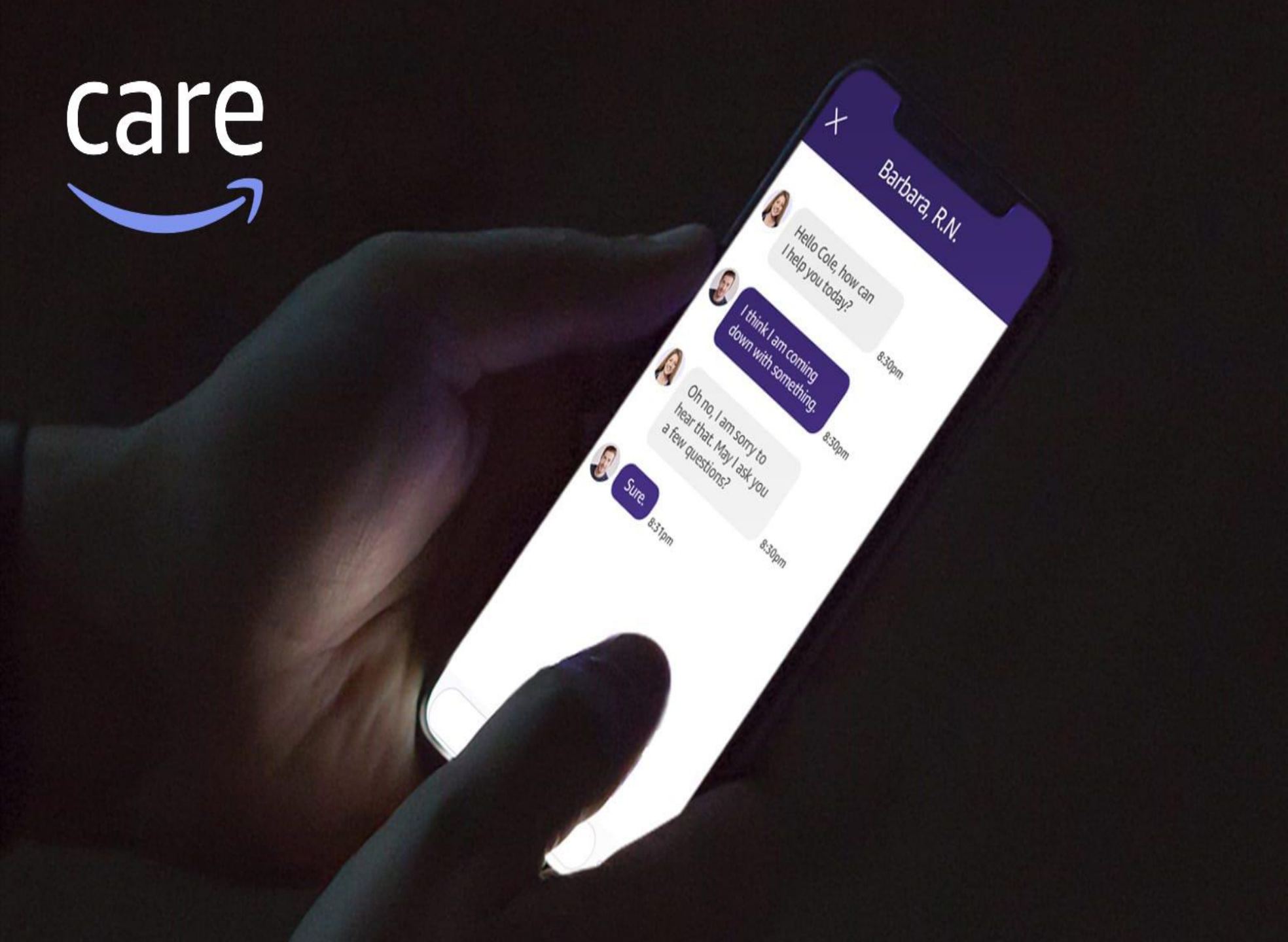
Neural Network Classifier

$$c \in X$$

$$X, k, P_Y$$


amazon
What are you looking for?
Shop new home essentials
See more everyday upgrades
Drink more water


amazon
Deliver to
Rochester 14620
All
All
Prime Video
Prime
Michael's Amazon.com
Hi, Michael
Recommendations for you
Your Orders
Prime Video
Amazon Music
Audible Books


care
Barbara, R.N.
Hello Cole, how can I help you today?
8:30pm
I think I am coming down with something.
8:30pm
Oh no, I am sorry to hear that. May I ask you a few questions?
8:30pm
Sure.
8:31pm


Clinicians & Caregivers
Health Systems
Insurance Companies
Employers
Patients

Clinicians &
Caregivers

UR Digital First
(2020)

UR Data Store
(2021)

Patients

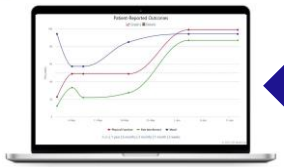
UR Digital First


Virtual Visit Today
On Demand
Thursday May 5, 2022
12:00 PM
12:20 PM
Friday May 6, 2022
10:00 AM
10:20 AM
10:40 AM
Monday May 9, 2022
9:00 AM
9:20 AM
9:40 AM
Tuesday May 10, 2022
9:20 AM
11:40 AM
12:00 PM
Thursday May 12, 2022
9:00 AM
9:20 AM
9:40 AM
Coronavirus (COVID-19):
Latest Updates |
Visitation Policies |
COVID-19 Testing |
Pay Bill
Navigating the Cost of Your Care
We know health care costs can be complex. We're here to help.
Wondering how much it will cost to receive services? See our
Price Estimator Tool
Make a Payment
Learn More
Search
Search
Patient Check-In
eCheck-In
Personal Info
Insurance
Verify Your Personal Information
Contact Information
Edit
Details About Me
On-Demand
Schedule an Appointment Today


I felt uneasy.
Never
Rarely
Sometimes
Usually
Always
SUBMIT
BACK
MENU
NEXT

UR Data Store

SMART Health System



Registration

HTML

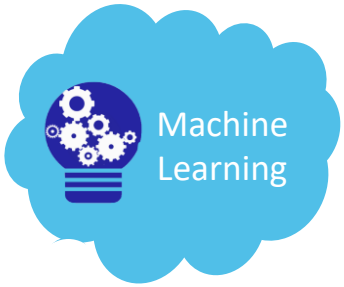
Interconnect Server

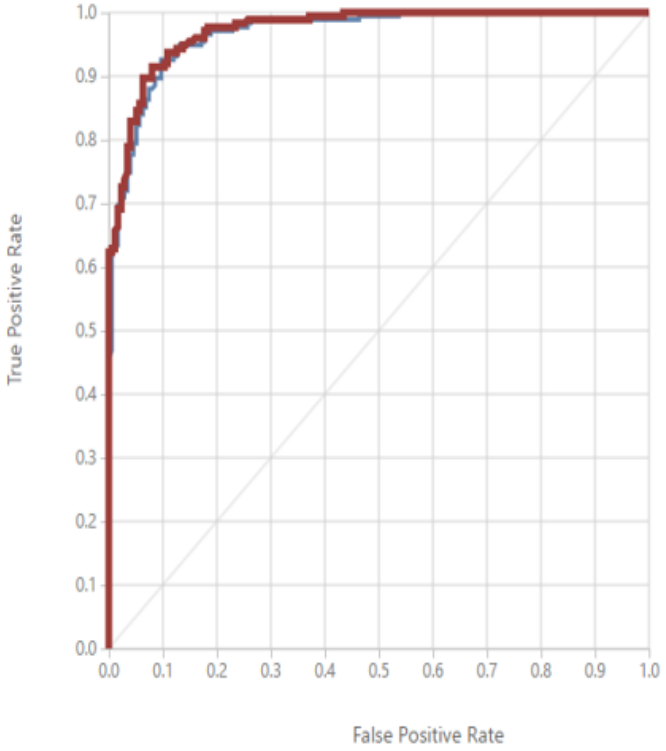
Patient Reported Outcomes

Modeling

Interactive Visualization

Integration

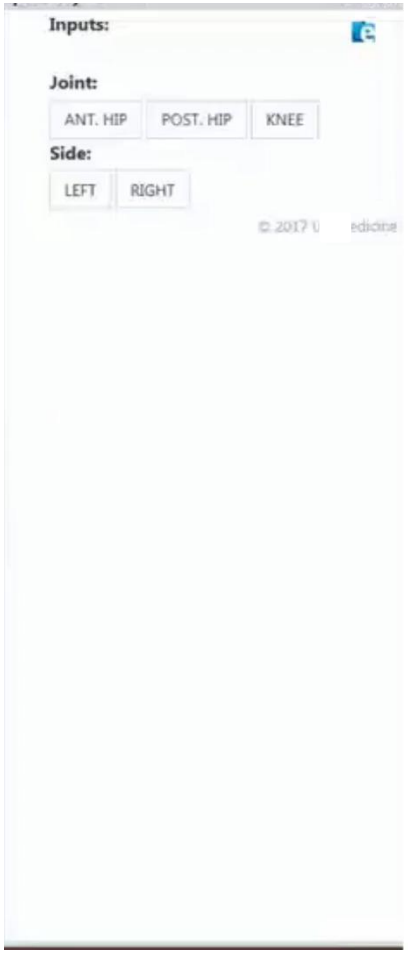


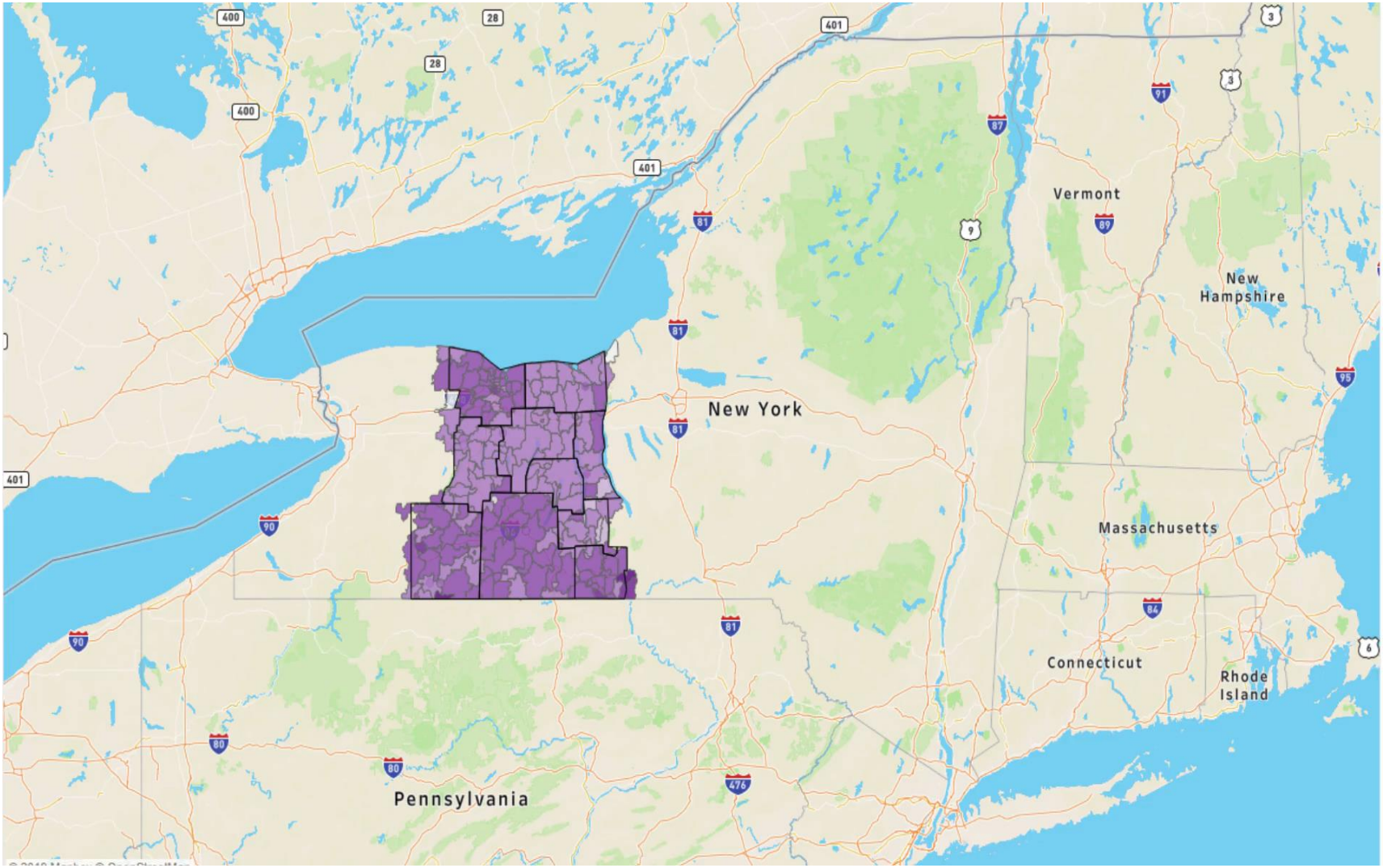


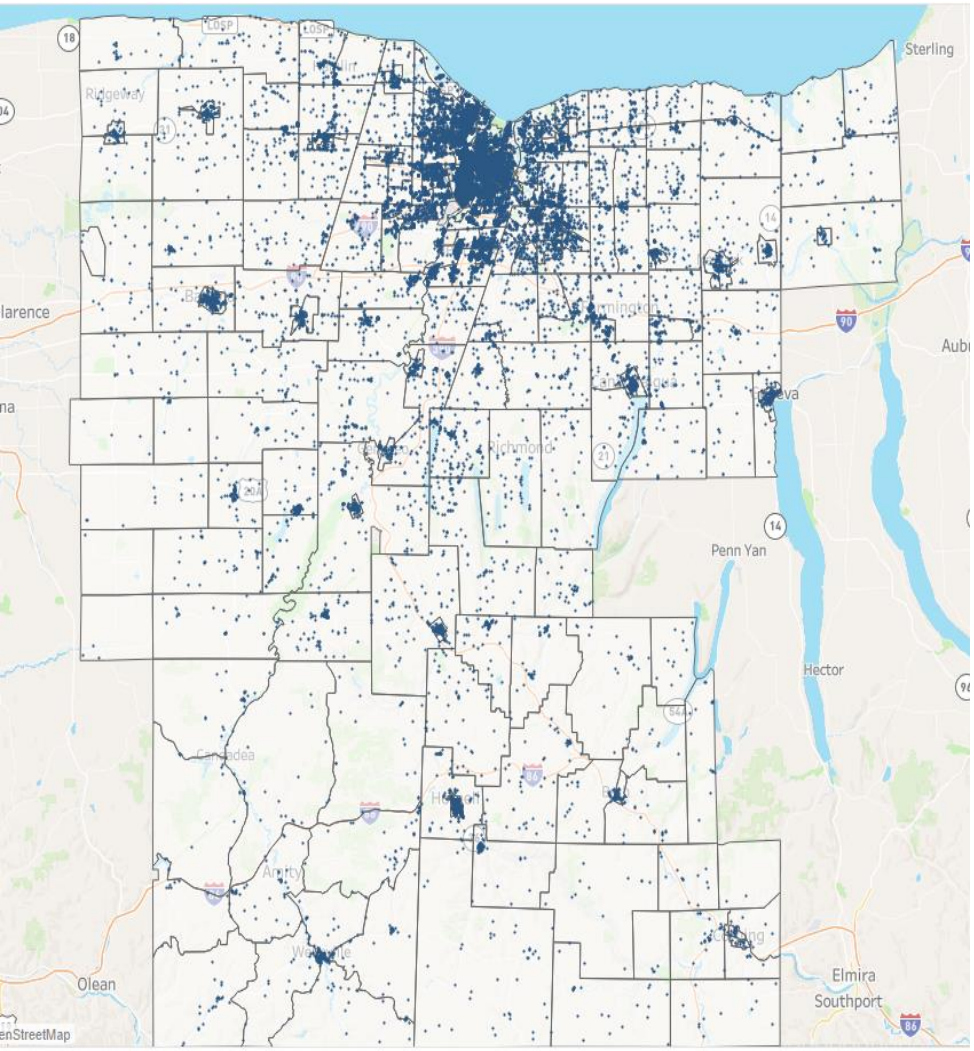
True Positive	False Negative	Accuracy	Precision	Threshold
160	15	0.917	0.920	0.54

False Positive	True Negative	Recall	F1 Score
14	161	0.914	0.917

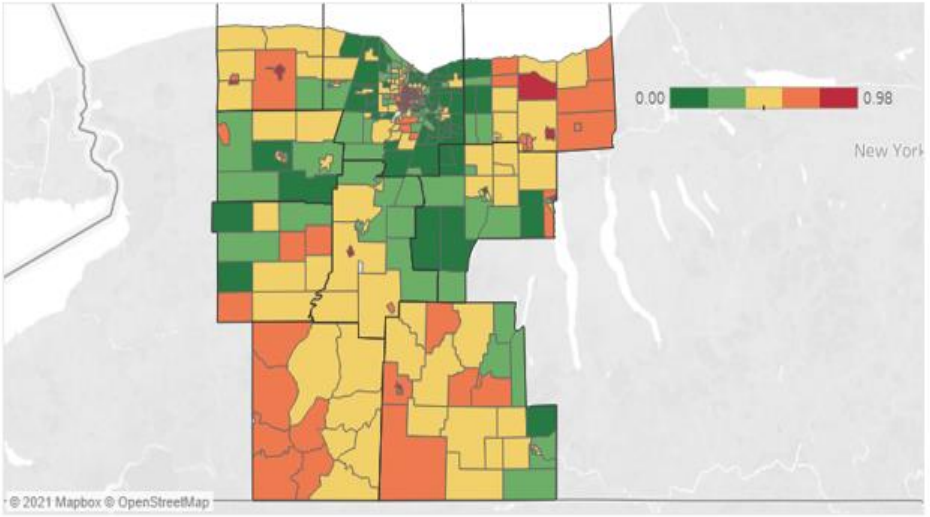
Score Bin	Positive Examples	Negative Examples
(0.900,1.000]	105	0
(0.800,0.900]	19	4
(0.700,0.800]	15	3
(0.600,0.700]	11	4
(0.500,0.600]	12	8
(0.400,0.500]	4	6
(0.300,0.400]	5	11
(0.200,0.300]	2	14
(0.100,0.200]	1	22
(0.000,0.100]	1	103

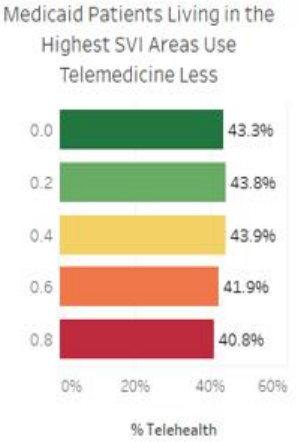


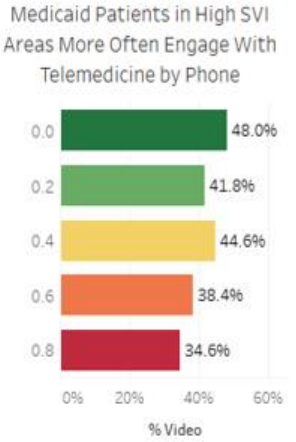

Vermont
New Hampshire
New York
Massachusetts
Connecticut
Rhode Island
Pennsylvania

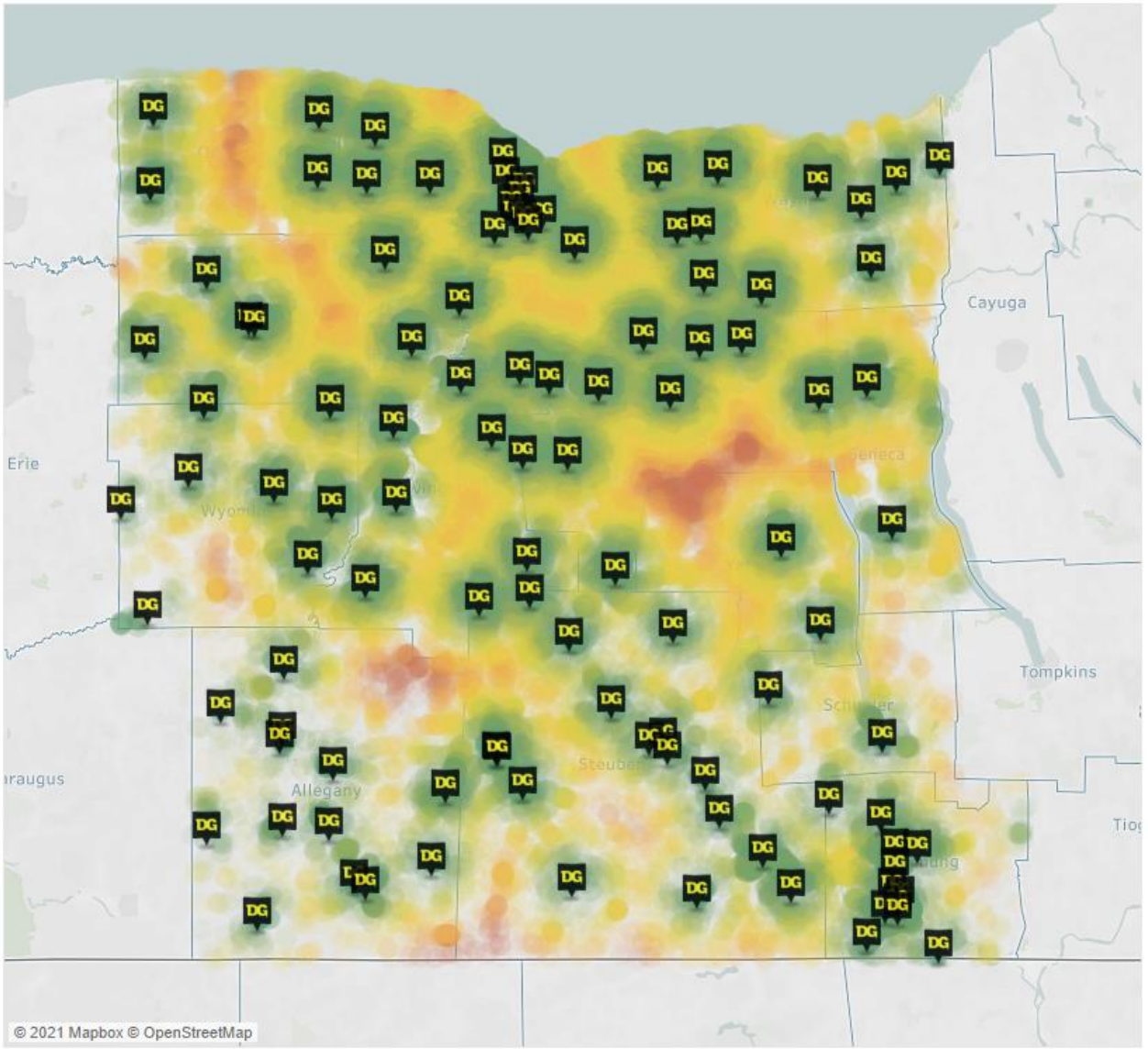


Medicaid Patients in Socially Vulnerable Census Tracts

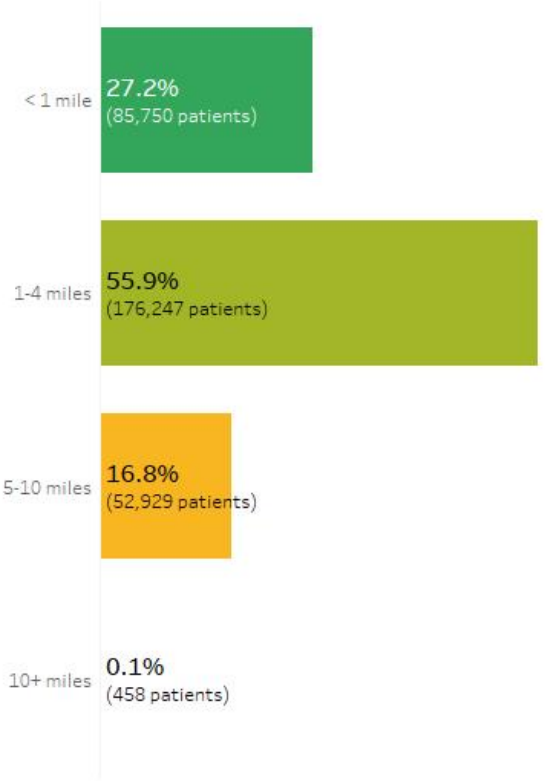






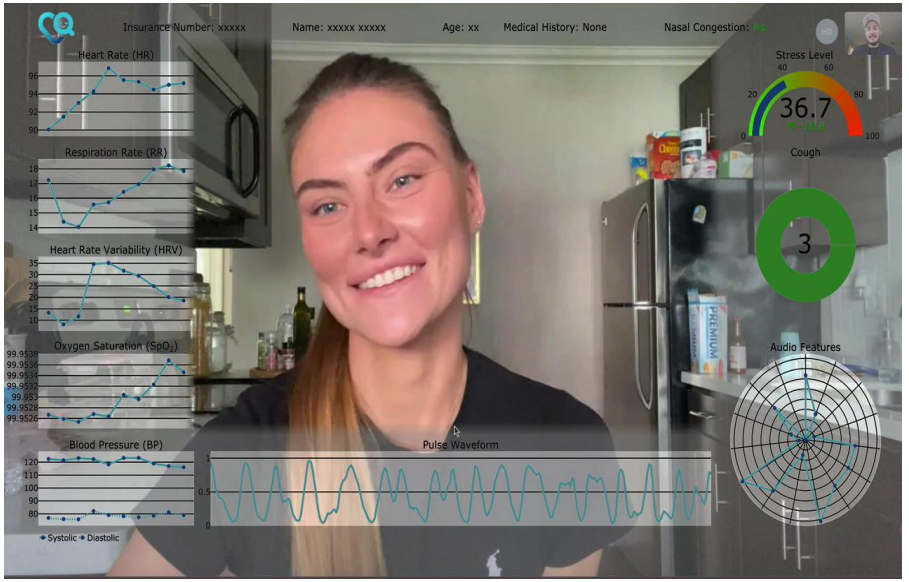


Distance from Patients' Homes to **Dollar General Stores**



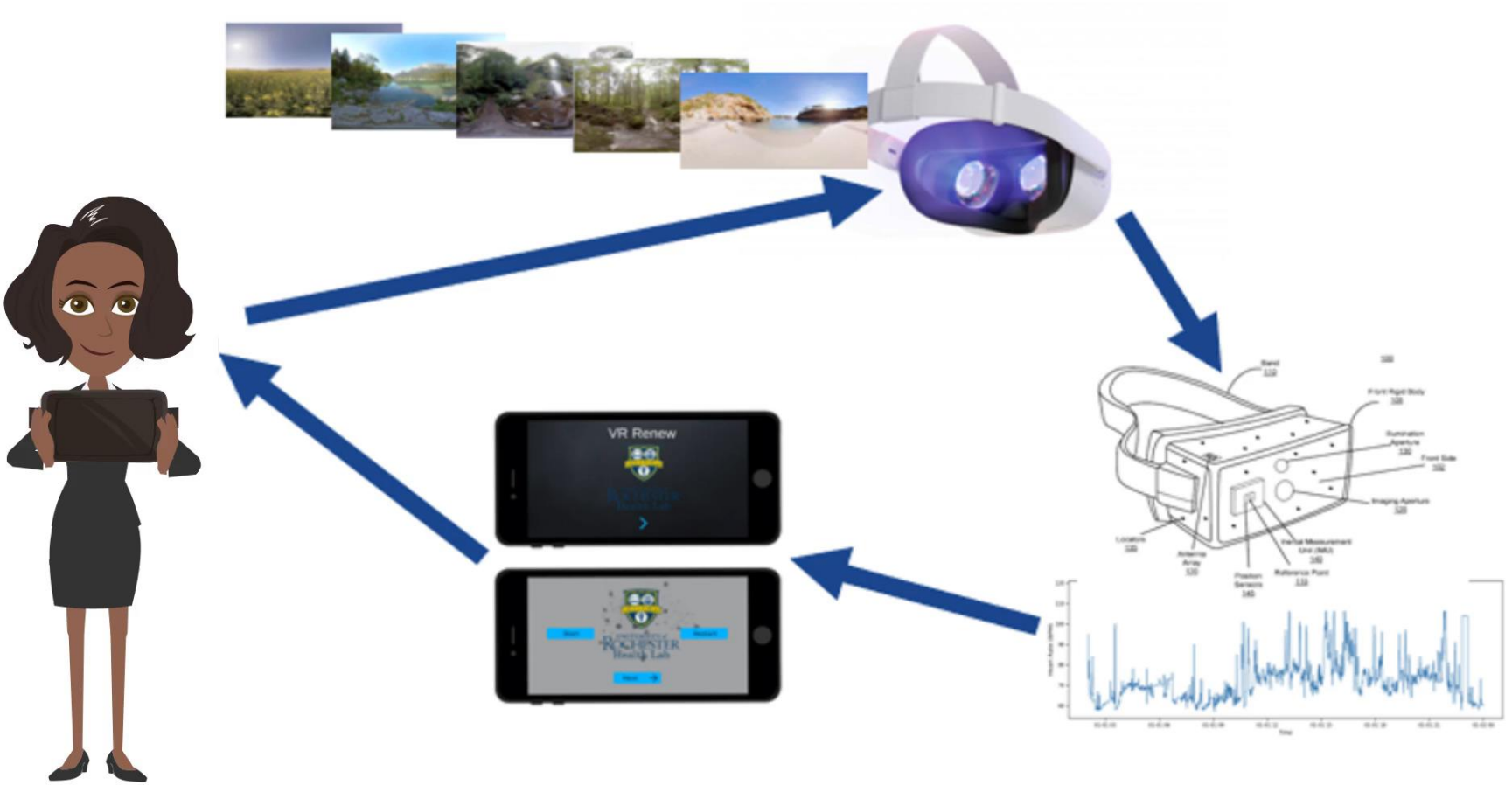
Patients Outside Monroe County

The Future



HOSPITAL OnMOBILE

Cherry Labs


VR Renew

Our Next Webinar

The NCTRC Webinar Series

Occurs 3rd Thursday of every month.

Telehealth Topic: Integrated Patient Portals and Improving the Virtual Experience
Hosting TRC: California Telehealth Resource Center (CTRC)
Date: May 19, 2022
Times: 11 AM – 12 PM (PT)

***Please check the NCTRC website for more information on the upcoming webinar.**

Please Complete Our Survey

Your opinion of this webinar is valuable to us.

Please participate in this brief perception survey (will also open after webinar):

https://www.surveymonkey.com/r/XK7R72F