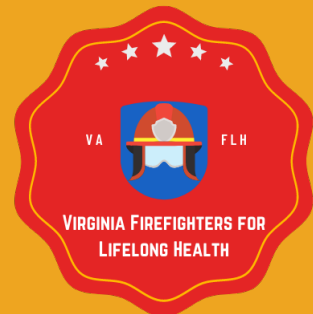


# Virginia Firefighters for Lifelong Health

*A partnership between the VA Firefighter Cancer Support Network, the Richmond Fire Department, and Massey Cancer Center*



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# Overview of Presentation

- Cancer among firefighters
- Goals of the Virginia Firefighters for Lifelong Health Registry
- Design and enrollment procedures for the registry
- Risks and benefits for participating in the registry
- Timeline

# Firefighters and Cancer Risk

- Carcinogens: cancer-causing agents
  - These include diesel exhaust, asbestos and polycyclic aromatic hydrocarbons (PAHs)
  - Firefighters are exposed during fire suppression and overhauling
  - Carcinogens can linger on gear or in the firehouse (flour, furniture, walls)
- Studies find an elevated increased incidence of cancer and higher mortality rates (mesothelioma, GI cancers, bladder, prostate, etc)
- Fire-hours and fire-runs have been associated with increased cancer incidence and mortality (esp. lung and leukemia)

# Firefighters and Cancer-Related Lifestyle Risk Factors

- Stress
  - Linked to acceleration of pre-malignant and malignant tumors through dysregulation of immune system
- Irregular sleep
  - Irregular sleep associated with a host of negative health outcomes, such as hypertension and diabetes
  - “probable cause of cancer”
- Lifestyle risk factors – contribute to 40% of all cancers
  - Physical inactivity
  - Unhealthy diet
  - Obesity
  - Tobacco use
  - Frequent alcohol consumption

# Firefighter Registries

- 2018 congress passed the “Firefighter Cancer Registry Act” which mandated CDC/NIOSH to develop and maintain a volunteer registry of firefighters
- National registries can be helpful in gathering data to better determine types of cancers for which firefighters are at risk
- Needed also are local registries that can help address state-wide and regional needs



# Virginia Firefighters for Lifelong Health Registry (VA-FLH)

**Overall Goal:** To generate data that can inform state-wide strategic planning, allocation of resources, and prevention strategies that can be used to mitigate cancer risk among firefighters in Virginia.

## **Specific Objectives:**

1. Characterize the demographics, lifestyle risk factors, and health status of firefighters who enroll in the VA - FLH
2. Determine factors associated with cancer preventive strategies and lifestyle cancer risk factors among firefighters in Virginia.
3. Link data with Virginia Cancer Registry every two years to monitor emerging cancers among the workforce and evaluate risk factors for these cancer using data from the registry

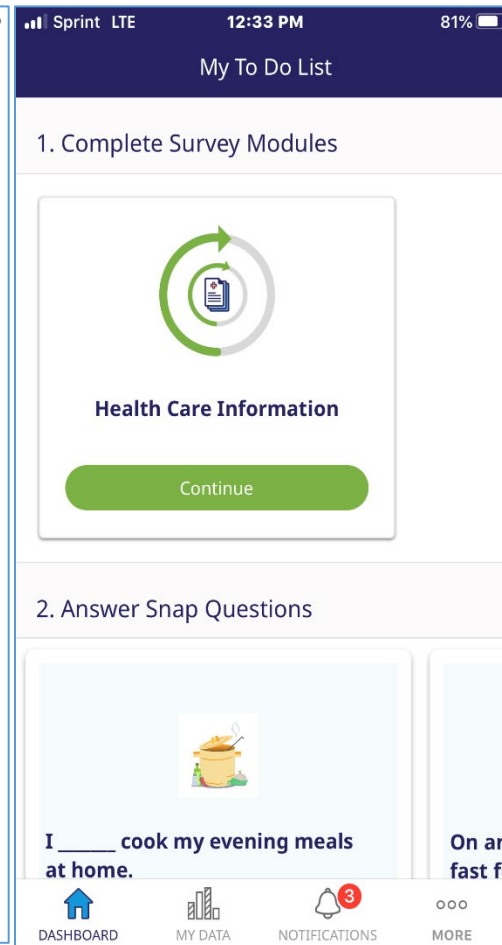
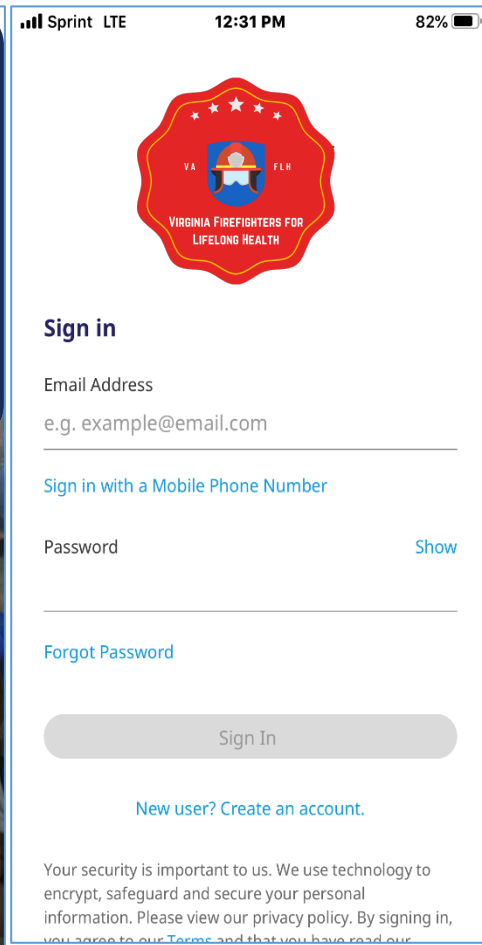
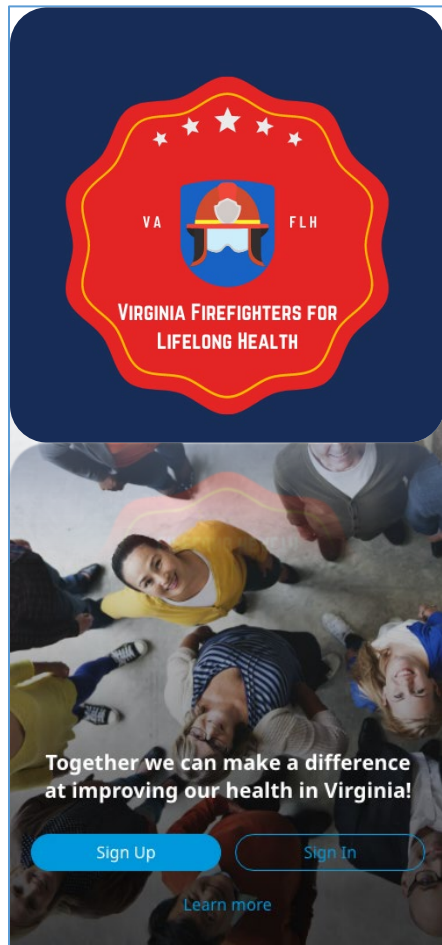
# Design and Enrollment

- **An Open Registry:** The VA-FLH registry will be an “open” registry meaning anyone can join at anytime.
- **Who is eligible?**
  - Age 18 or older
  - Living in Virginia
  - Volunteer or career firefighter
  - Current or former firefighter
- **Goal:** Enroll the first 5000 within the first year of launch
- **Bio-Specimens:** We will also test the ability to collect bio-specimens (e.g., saliva, blood spots) among a subset of firefighters



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# VA – FLH Web and App (*in development*)



- Working with Massey's tech partners (Vibrent) we will design a study-specific app and web-portal.
- The app/web portal will meet the highest security protocols of the university and all procedures will be approved by the universities ethics review board
- Enrollment will involve
  - Informed consent
  - Creating a unique ID/password
  - Completing a set of baseline questions about work history, possible exposures, and health information
- Participants may be contacted once yearly to update their information
- Participants may also be contacted about future studies for which they qualify
- Participants will be able to discontinue their participation at any time

Get started with 1 simple step.



Apple



Android



Online



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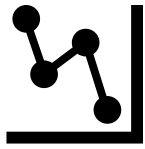
# Risks and Benefits

## Risks:

- In any study there will always be risks associated with a data breach or loss of protected information
- We will maintain the highest security protocols for collecting and storing electronic data
- We will keep all data confidential and restrict access to only those involved in running the study
- Personal information will only be shared to match data to cancer registry or other health databases under strict protocols to keep data secure
- Only summaries of the data (not individual data) will be shared for the purpose of communicating findings

## Benefits:

- Contributing your data to the registry will help us better understand the reasons for higher cancer risk among firefighters
- The findings could generate new knowledge to inform ways to prevent cancer in the force
- The findings could help inform state and regional legislation and policies that could benefit firefighters



# Data Sharing



Working with the Virginia Firefighters Cancer Support Network the Massey team will generate executive reports and policy briefs based on data collected.

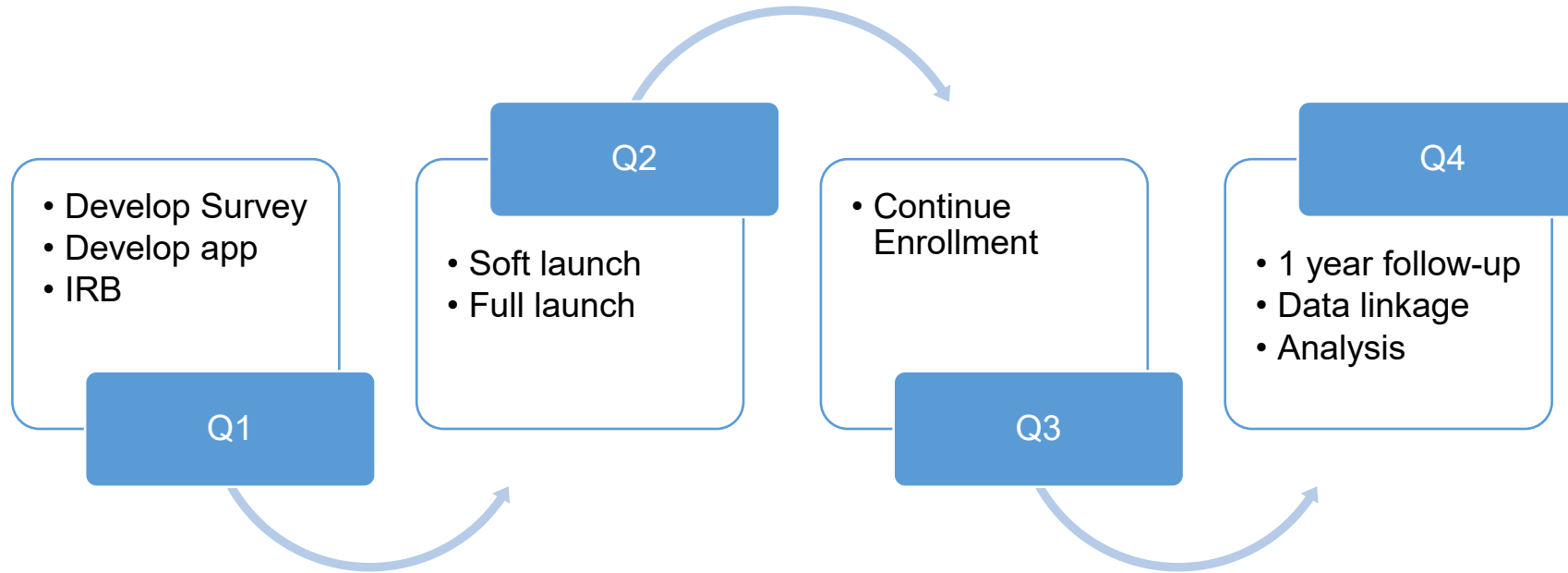


Reports will be widely distributed and available for all interested parties





# Timeline



# Team

- Primary Investigators
  - Jim Burch, PhD
  - Bernard Fuemmeler, PhD, MPH
- Co – Investigators
  - Hua Zhao, PhD
  - Theresa Swift-Scanlan, PhD, RN, FAAN
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  - Tilahun Adera, Ph.D., M.P.H., M.A.
- VA Cancer Firefighter Support Network
  - Steve Weissman
  - Keith Andes
  - Joe Schumacher
- Richmond Fire Department
  - Chief Tracy Thomas
  - Lt. Travis Stokes, PhD

# Thank you!

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**FIREFIGHTERS**

- Cancer
- Awareness
- Research
- Education
- Support

