# Traffic Vision

Smart technology for safer intersections
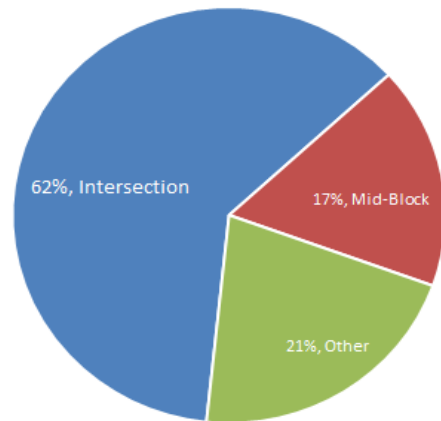
# The Problem

- Senior **pedestrians** are vulnerable at **intersections**
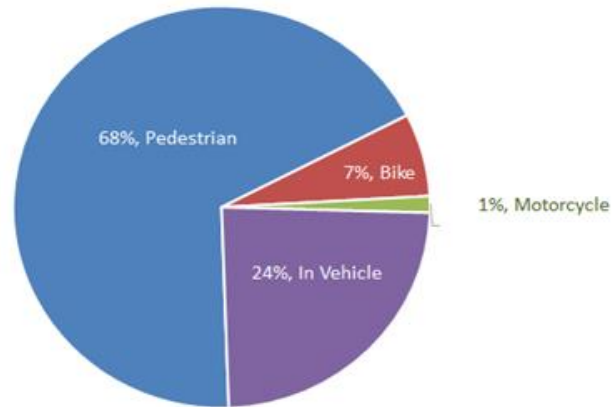

Photo: Adrienne Johnson/Human Streets

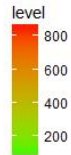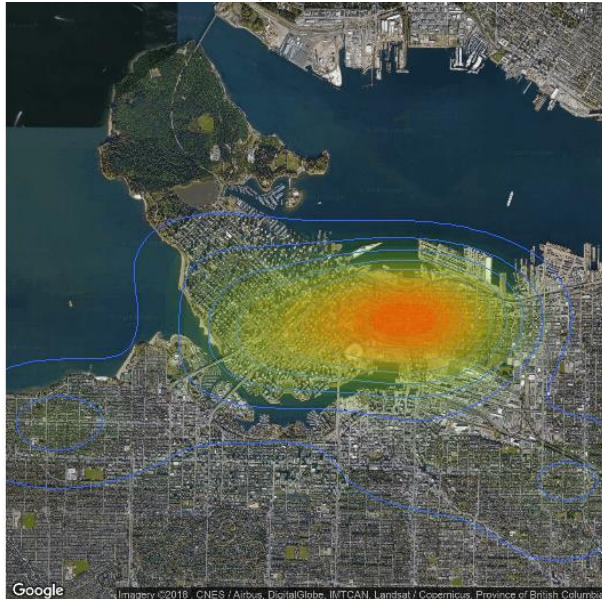### Location Types of Fatal Traffic Accidents Involving Senior



62%, Intersection
17%, Mid-Block
21%, Other

### Traffic Accidents involving Senior Fatality - Travel Mode



68%, Pedestrian
7%, Bike
1%, Motorcycle
24%, In Vehicle

# Where and why?

Mainly occurred around
Hastings and Main

Senior Population and Senior Home Distributions
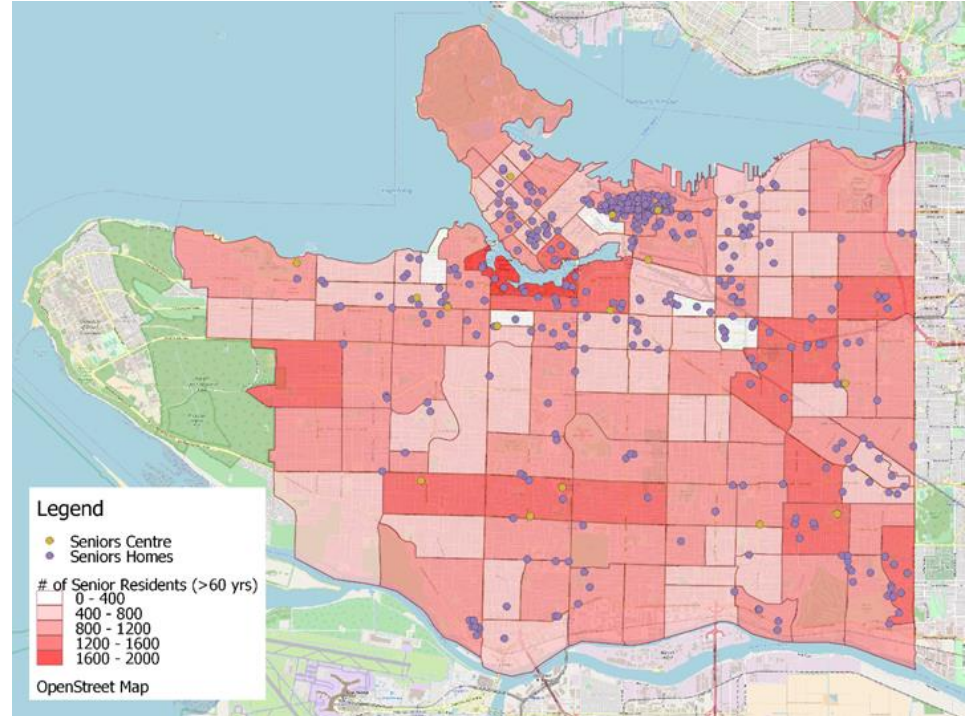
Fatal Accident Heat Map

# They need more time!

Pedestrian Signal Design Speed: ～1.0 m/s

Mean walking speed for senior:
    0.9 m/s in men and 0.8 m/s in women

Faster gait speed is associated with an increase in risk ratio for outdoor falls

Crossing the road in time: Inequalities in older people's walking speeds

Elizabeth A. Webb [a] ✉, Steven Bell [b], Rebecca E. Lacey [a], Jessica G. Abell [a, c]

The Non-linear Relationship between Gait Speed and Falls: The MOBILIZE Boston Study

Lien Quach, M.P.H, M.S.,[1] Andrew M. Galica, B.S.,[1] Richard N. Jones, Ph.D.,[1,2,3] Elizabeth Procter-Gray, Ph.D., M.P.H.,[4] Brad Manor, Ph.D.,[2,3] Marian T. Hannan, D.Sc., M.P.H.,[1,2,3] and Lewis A. Lipsitz, M.D.[1,2,3]

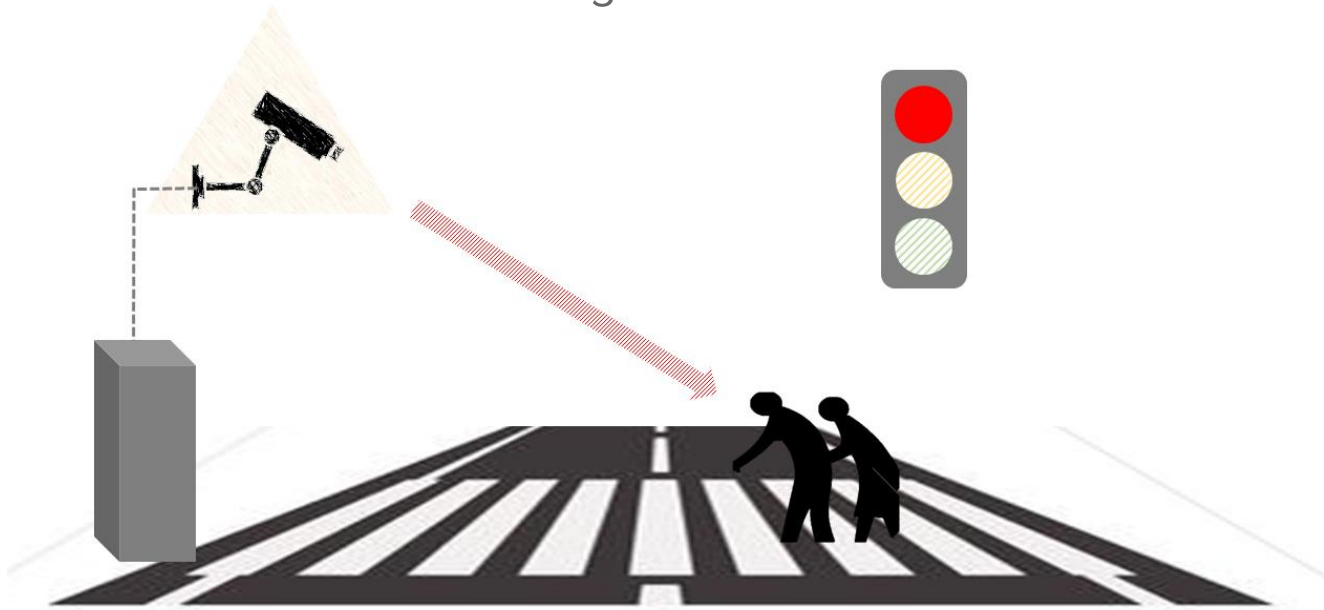Injuries among older adults: the challenge of optimizing safety and minimizing unintended consequences

S Binder

# What we propose…

# What we propose...

Extend pedestrian walking time when pedestrians with walking impairment are detected on crosswalk in TensorFlow algorithm.

# Benefits

- Discreet and unintrusive
- No learning curve for users
- No registration or card required
- Accessible to anyone needing extra time
- Technology exists and has space for future improvements

# Thank you!

Questions?