

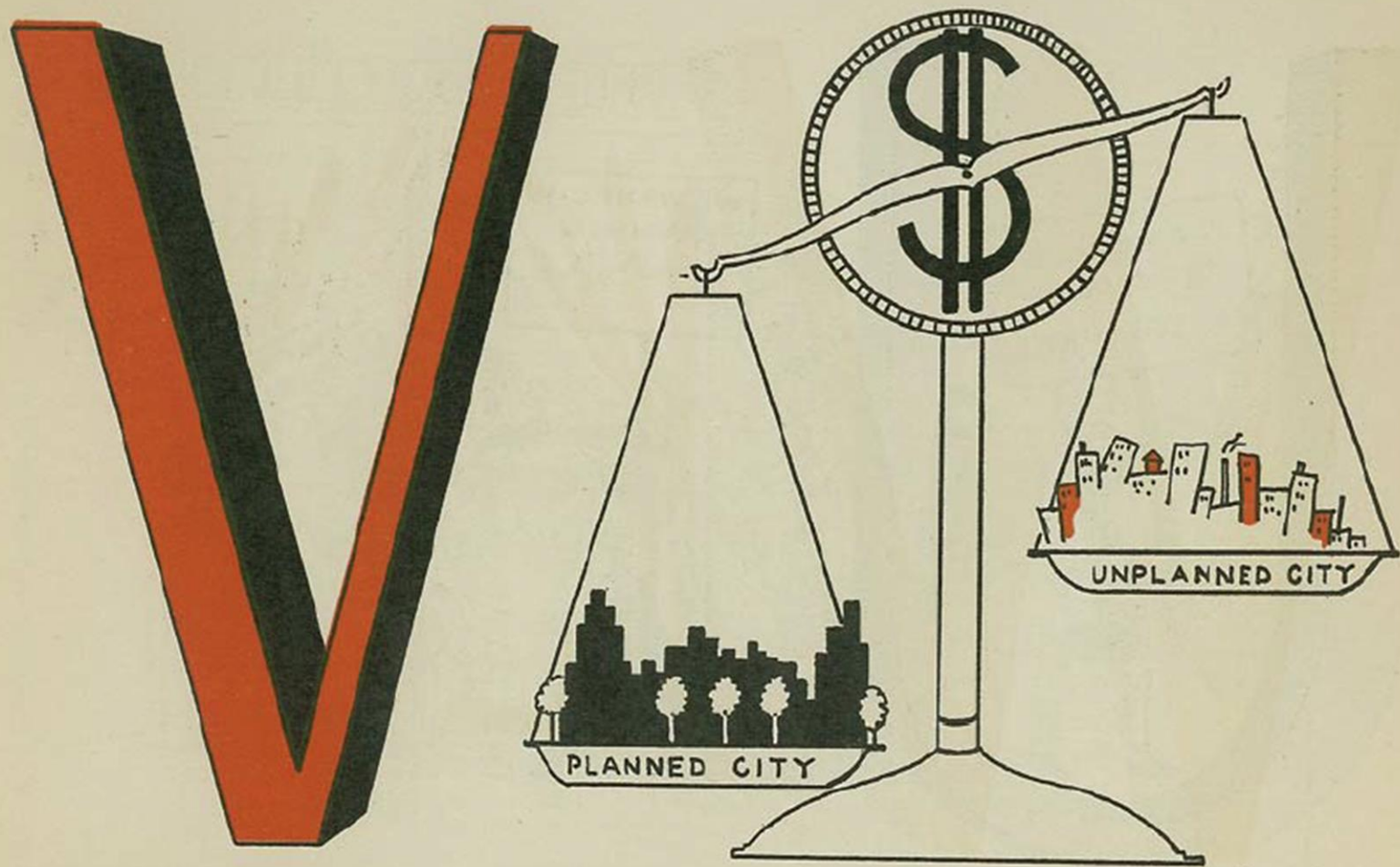


## Healthy Disparities & The Role of the Built Environment

Don Kostelec, AICP

Boise, ID

@kostelecplan



V—is for **VALUE**  
Not measured in wealth.  
Planners think wisely  
Weighing comfort and health.



Urban Landscapes of Illinois Collection





# Washington Growth Management Act

- “The legislature finds that uncoordinated and unplanned growth, together with a lack of common goals expressing the public's interest in the conservation and the wise use of our lands, pose a threat to the environment, sustainable economic development, and the **health, safety, and high quality of life** enjoyed by residents of this state.”
  - RCW [36.70A.010](#), Legislative Findings



## **14.100.102 Purpose and Intent**

The purpose of the Zoning Code is to promote and protect the public health, safety, and general welfare and to implement the goals and policies of the Spokane County Comprehensive Plan.

### **20.02.040 Purpose and intent.**

[+ SHARE](#)

The purpose of this code is to protect the health and safety, and enhance the general welfare and quality of life of the citizens of the City of Walla Walla. This Code intends to accomplish this purpose by defining and quantifying the uses of land designated by the Comprehensive Plan. This Code is the principal means of implementing the Plan. To this end, this code is intended to:

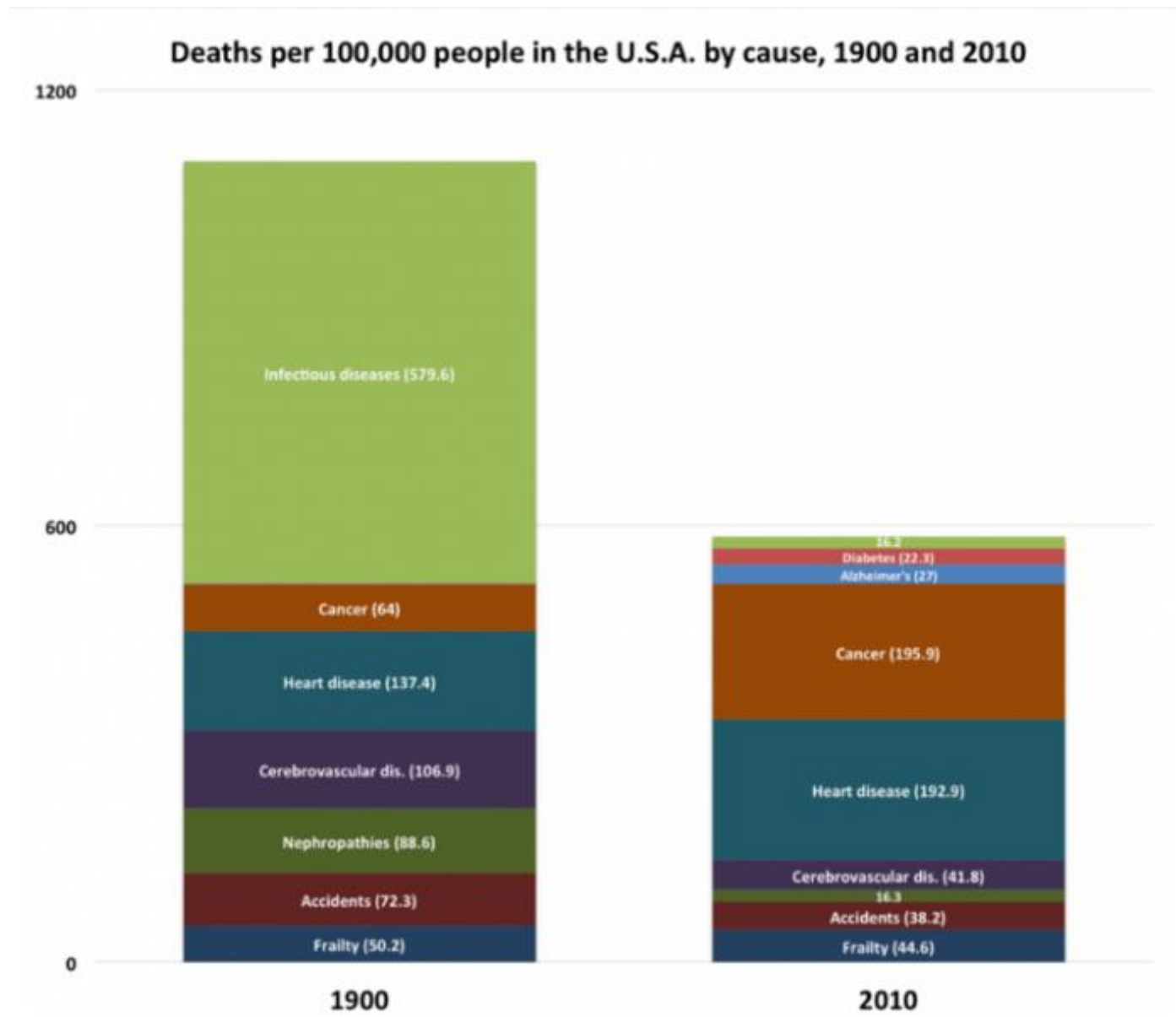
17.01.050 Purposes. This Zoning Code has the following purposes:

- (1) to promote the public health, safety, order, convenience, and general welfare;

# **Mission Accomplished!?!**



# Causes of Death: Then and Now





# Washington Growth Management Act

- **Effective date—2005 c 477:** "This act is necessary for the immediate preservation of the public peace, **health, or safety**, or support of the state government and its existing public institutions, and takes effect immediately [May 13, 2005]." [ [2005 c 477 § 2.](#)]
- **Findings—Intent—2005 c 360:** "The legislature finds that **regular physical activity is essential to maintaining good health and reducing the rates of chronic disease**...This collaboration can build communities where **people find it easy and safe to be physically active**. It is the intent of the legislature to promote policy and planning efforts that increase access to inexpensive or free opportunities for regular exercise in all communities around the state." [ [2005 c 360 § 1.](#)]





# Connecting Transportation & Health:

## A Guide to Communication & Collaboration



Prepared for  
**AASHTO Committee on Environment and Sustainability**

Prepared by

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The information contained in this report was prepared as part of NCHRP Project 25-25, Task 105,  
National Cooperative Highway Research Program.

SPECIAL NOTE: This report IS NOT an official publication of the National Cooperative Highway Research  
Program, Transportation Research Board, National Research Council, or The National Academies.

Contractor's Final Report  
April 2019



### FHWA Health in Transportation Corridor Planning Framework Steps

1. Define transportation problems and public health issues
2. Identify transportation and health needs, resources, and priorities
3. Develop goals and objectives that promote health in the community
4. Establish evaluation criteria that include public health
5. Develop and evaluate alternatives and their health impacts
6. Identify alternatives that support health in the community

[https://www.fhwa.dot.gov/planning/health\\_in\\_transportation/planning\\_framework/the\\_framework/step00.cfm](https://www.fhwa.dot.gov/planning/health_in_transportation/planning_framework/the_framework/step00.cfm)



# NEPA and Health

- The purpose of NEPA is to...
  - . . . promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man. NEPA § 102 [42 USC §4321]
- As well as to...
  - . . . assure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings. [42 USC §4331]
- And to...
  - . . . attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences. [42 USC §4331]



# Environmental Justice – Executive Order 12898

“Each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and **adverse human health** or environmental effects of its programs, policies, and activities on minority populations and low-income populations.”



“Health” appears 18  
times in the Executive  
Order!



# Environmental Justice – Executive Order 12898

## Human Health and Environmental Research and Analysis.

- (a) Environmental human health research, whenever practicable and appropriate, shall include diverse segments of the population in epidemiological and clinical studies, including segments at high risk from environmental hazards, such as minority populations, low-income populations and workers who may be exposed to substantial environmental hazards.
- (b) Environmental human health analyses, whenever practicable and appropriate, shall identify multiple and cumulative exposures.





## What We **Spend** On Being Healthy



## What **Makes** Us Healthy



# The Reduction of Urban Vulnerability: Revisiting 1950s American Suburbanization as Civil Defence

KATHLEEN A. TOBIN

“It is wrong to believe that postwar American suburbanization prevailed because the public chose it and will continue to prevail until the public changes its preferences. ... Suburbanization prevailed because of the decisions of large operators and powerful economic institutions supported by federal government programs, and ordinary consumers had little real choice in the basic pattern that resulted.”

US Commander in Chief of the Continental Air Defense Command, to the 1954 Washington Conference of Mayors:  
“To our possible enemies...the hundred biggest cities...do not mean historic streets and beautiful parks, school systems in which you have pride, or the churches which are your fountains of faith.  
They may mean to them only those aerial forces and weapons required to produce the 100 pinpointed minutes of atomic hell on earth necessary for their destruction.”





Special Issue on:  
CIVIL  
DEFENSE  
AGAINST  
ATOMIC  
ATTACK

Copyrighted material

**1951: “Defense through decentralization”** as the only realistic defense against nuclear weapons...Directing all new construction “away from congested central areas to their outer fringes and suburbs in low-density continuous development”

**1955 Commission on Intergovernmental Relations:** “It is recommended that consideration be given to redirecting grant-in-aid programs (housing and highways) in the interests of reducing the vulnerability of our cities.”



# HEALTH & PLANNING PARADIGM

Most Effort



Health as the driving factor in developing the plan

Health as an informant to the plan

Health as a component of the plan

Least Effort

# HEALTH & PLANNING PARADIGM

Most Effort



Least Effort

- Treat is as if it's another subject area element of the plan (e.g. transportation, open space)
- Include social determinants of health data (likely from Census) in your demographic profile and analysis
- Use other specific health data, as available
- Develop health-specific goals, objectives and implementation actions

Health as a component of the plan

# HEALTH & PLANNING PARADIGM

Most Effort



Least Effort

- Weave health themes among the other planning themes of the plan
  - How does it influence land use?
  - How does transportation influence health?

## Health as an informant to the plan

- Include social determinants and other health data to make linkages to other subject areas of the plan
- Potentially identify likely health outcomes of a variety of recommendations actions (low, medium, high impact; positive or negative?)



# HEALTH & PLANNING PARADIGM

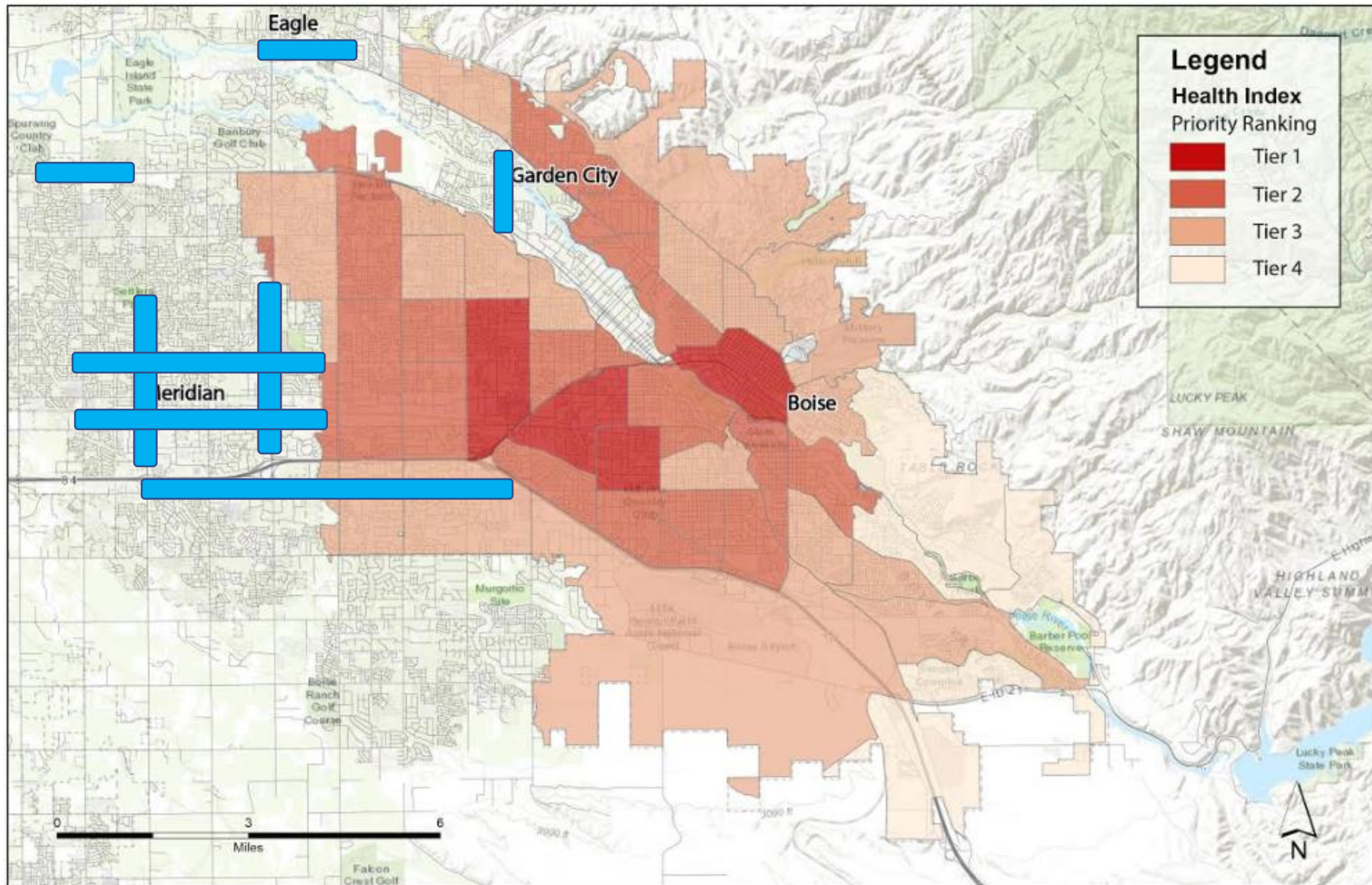
Most Effort



## Health as the driving factor in developing the plan

- Identifying major health concerns, impacts of public policy, and geographic areas of concern before the plan or as a first step
- Target areas of most concerns for planning-related policy interventions
- Use as much data as possible to identify target areas and evidence-based interventions related to planning policy

Least Effort



# Health Index Heat Map

Index of selected health metrics per census tract for the City of Boise.

**Ecosystem Sciences, LLC**

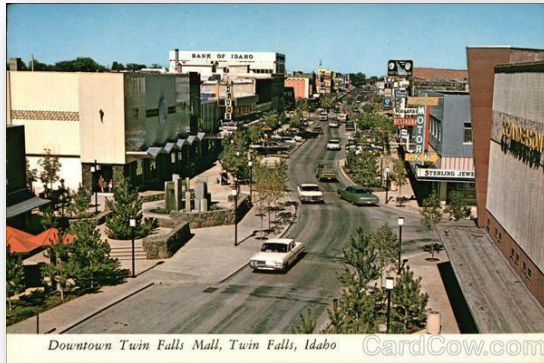
Science Design Planning

Disclaimers - This map (or data product) is for illustration purposes only. It is not intended to be used for description, conveyance, authoritative definition of legal boundary, or property title. This is not a survey product. Users are encouraged to examine the documentation or metadata associated with the data on which this map is based for information related to its accuracy, currentness, and limitations.



# Twin Falls

## Healthy Conditions Assessment



Downtown Twin Falls Mall, Twin Falls, Idaho

CardCow.com

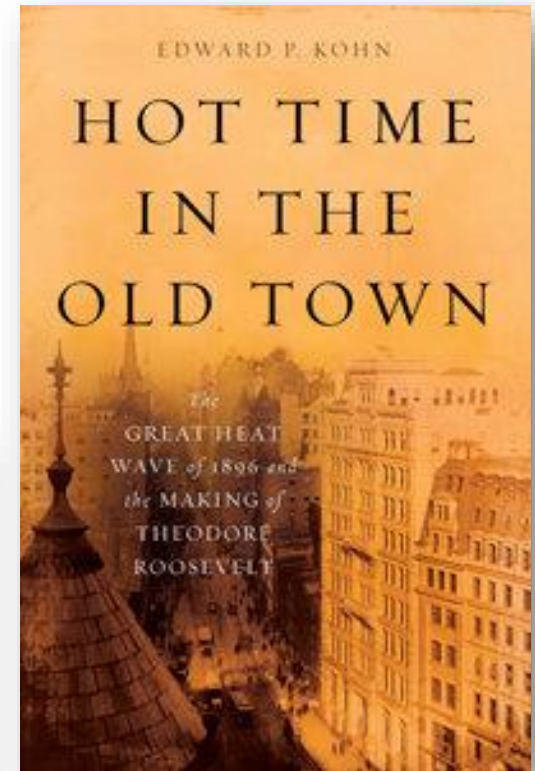




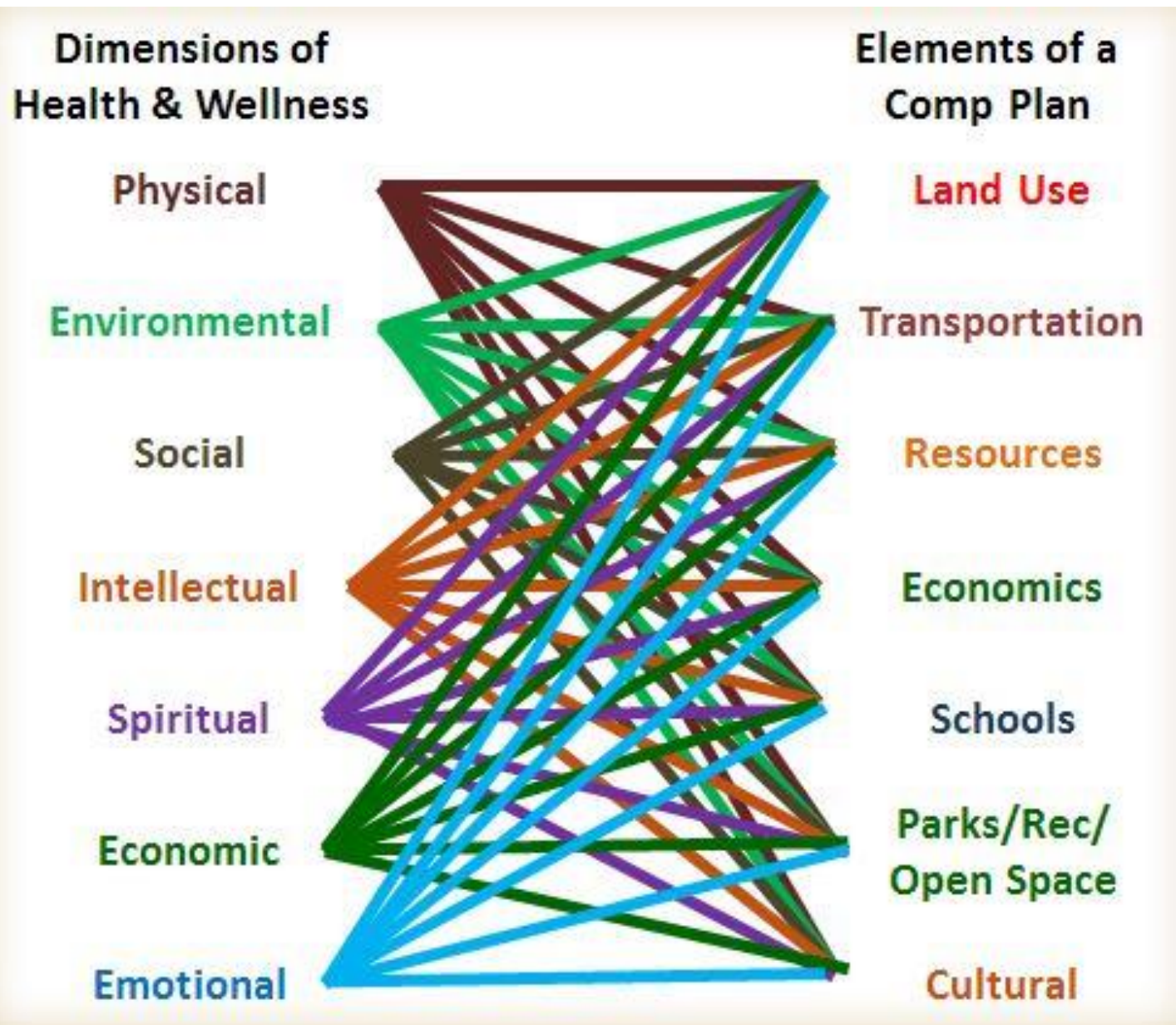
# **Healthy Conditions Assessment...**

## **...leaving a legacy**









# Our Process..



- Collect, Layer and USE Data
- Determine Hot Spots & Field Confirmation
- Identify Shareholders. Interview, Find Needs
- Bring people together and problem solve/plan
- Focus limited resources



# The Data

Income

Age

Food Access

Park Access

Violent Crime

Insurance Access

Disability Rate

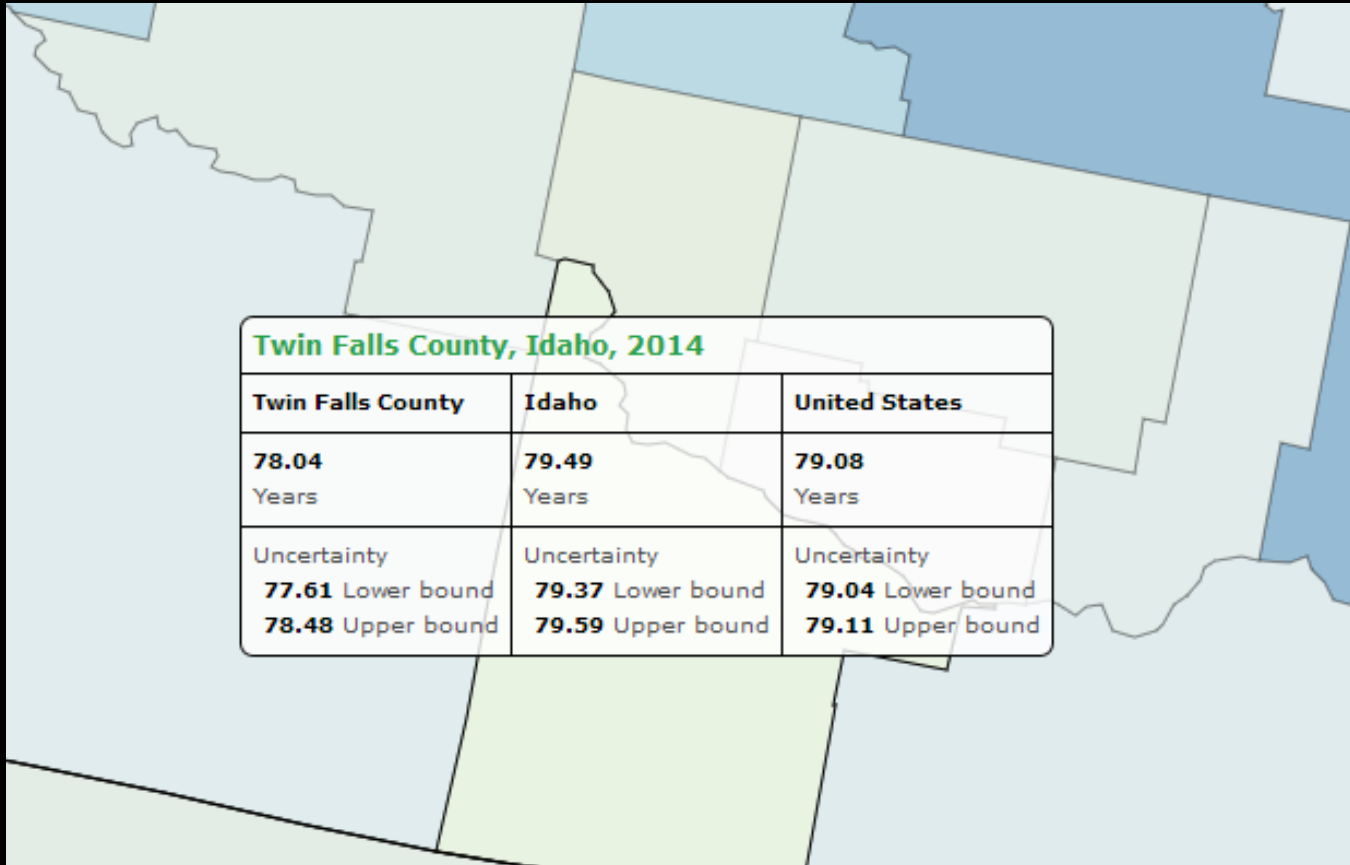
Air Quality

Substandard Housing

SNAP Households

Car Ownership

# Preliminary Findings....

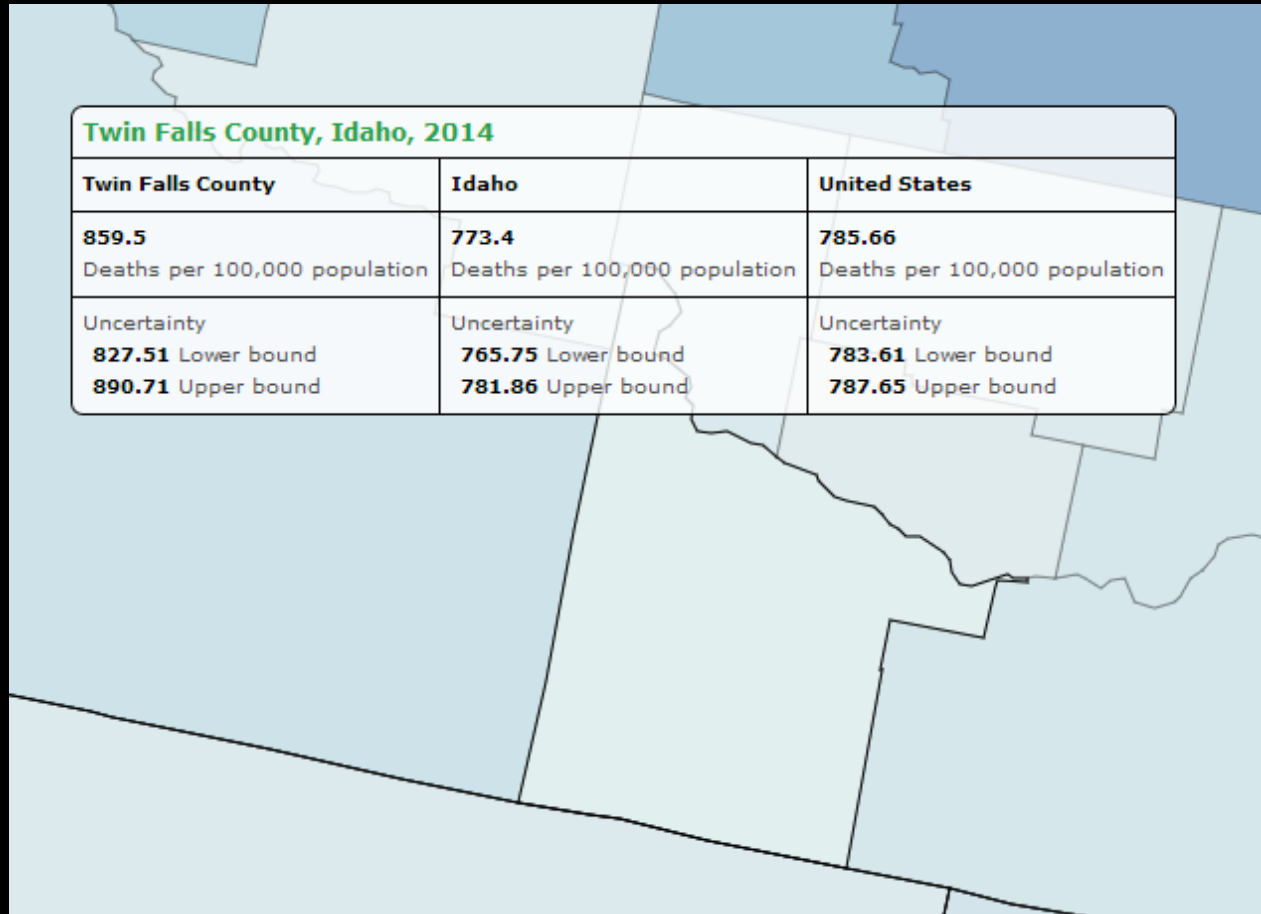


## Life Expectancy...

Citation: [healthdata.org](http://healthdata.org)



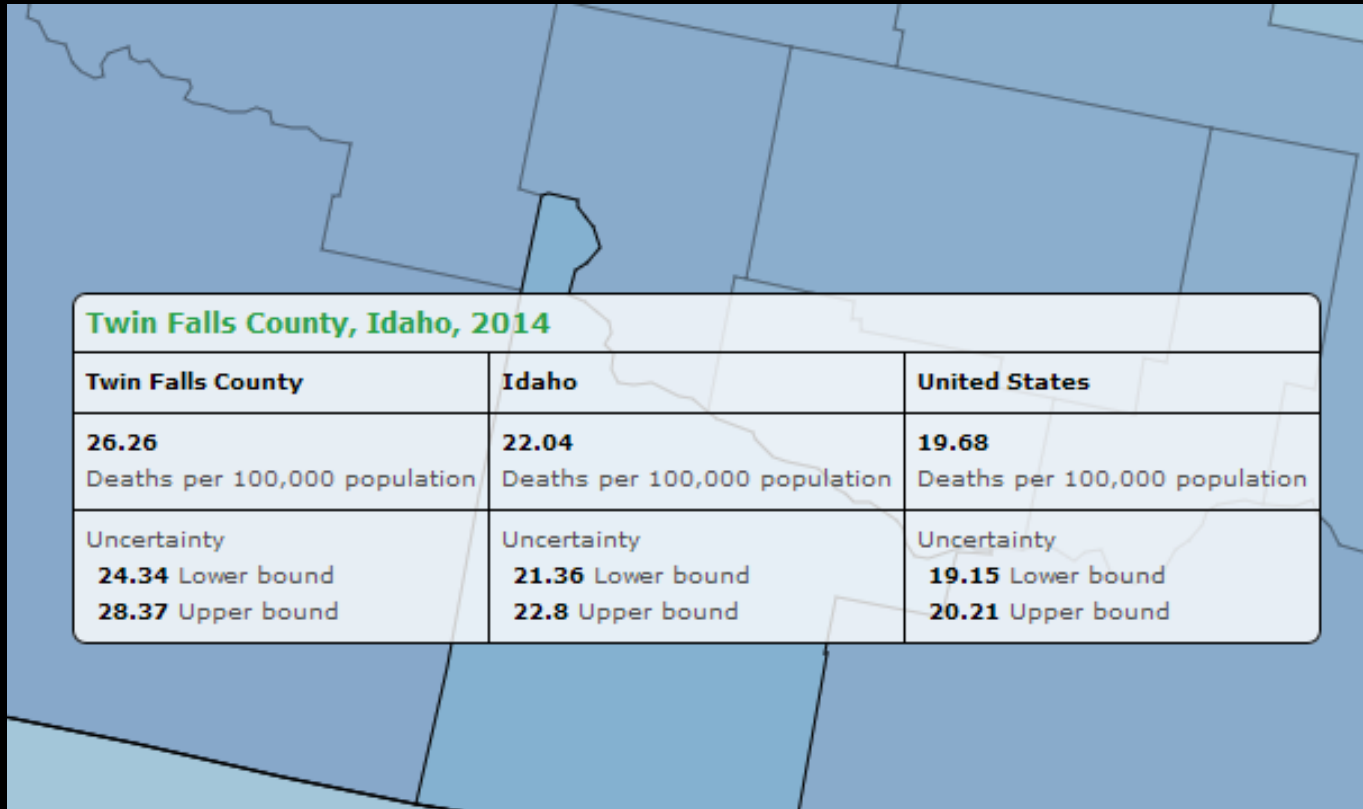
# Preliminary Findings....



Death Rate...

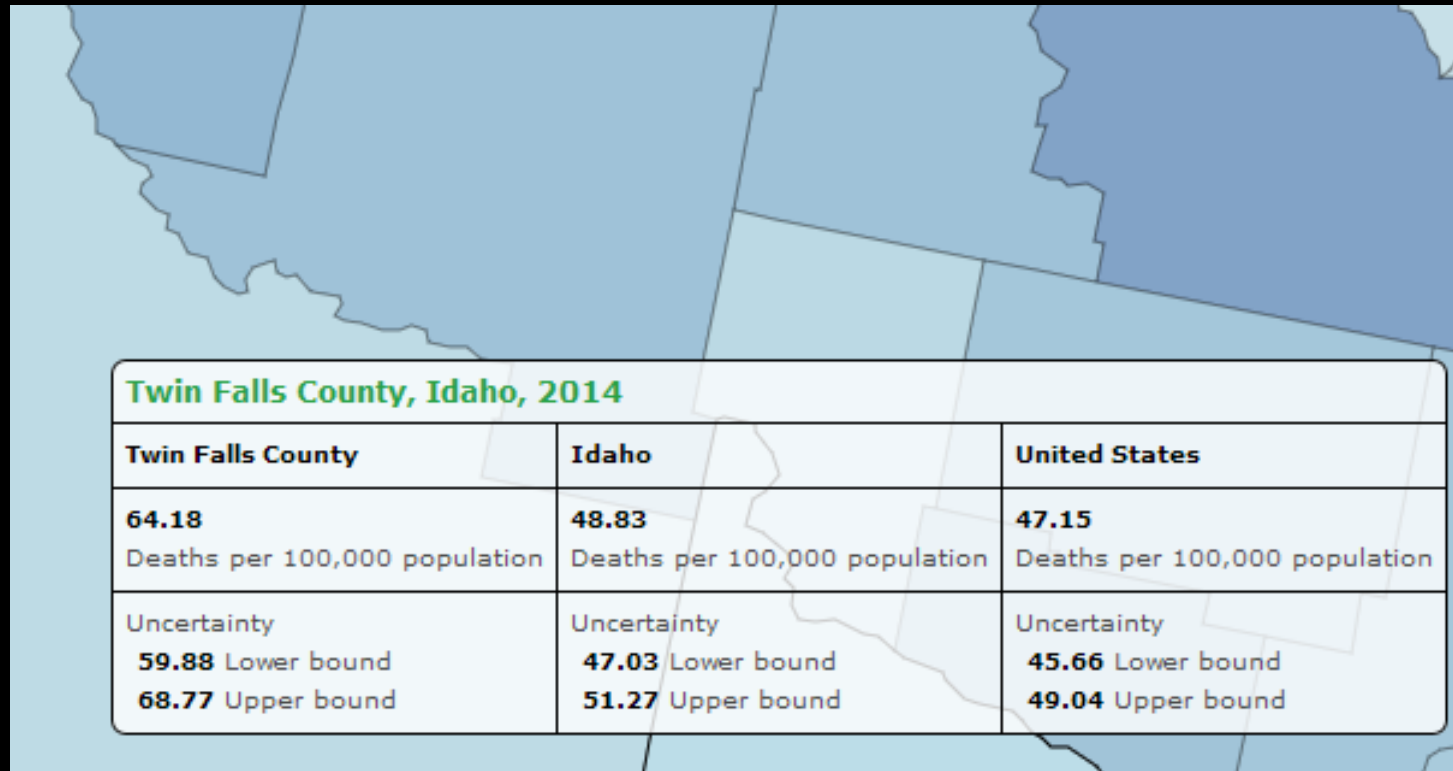
Citation: [healthdata.org](http://healthdata.org)

# Preliminary Findings....



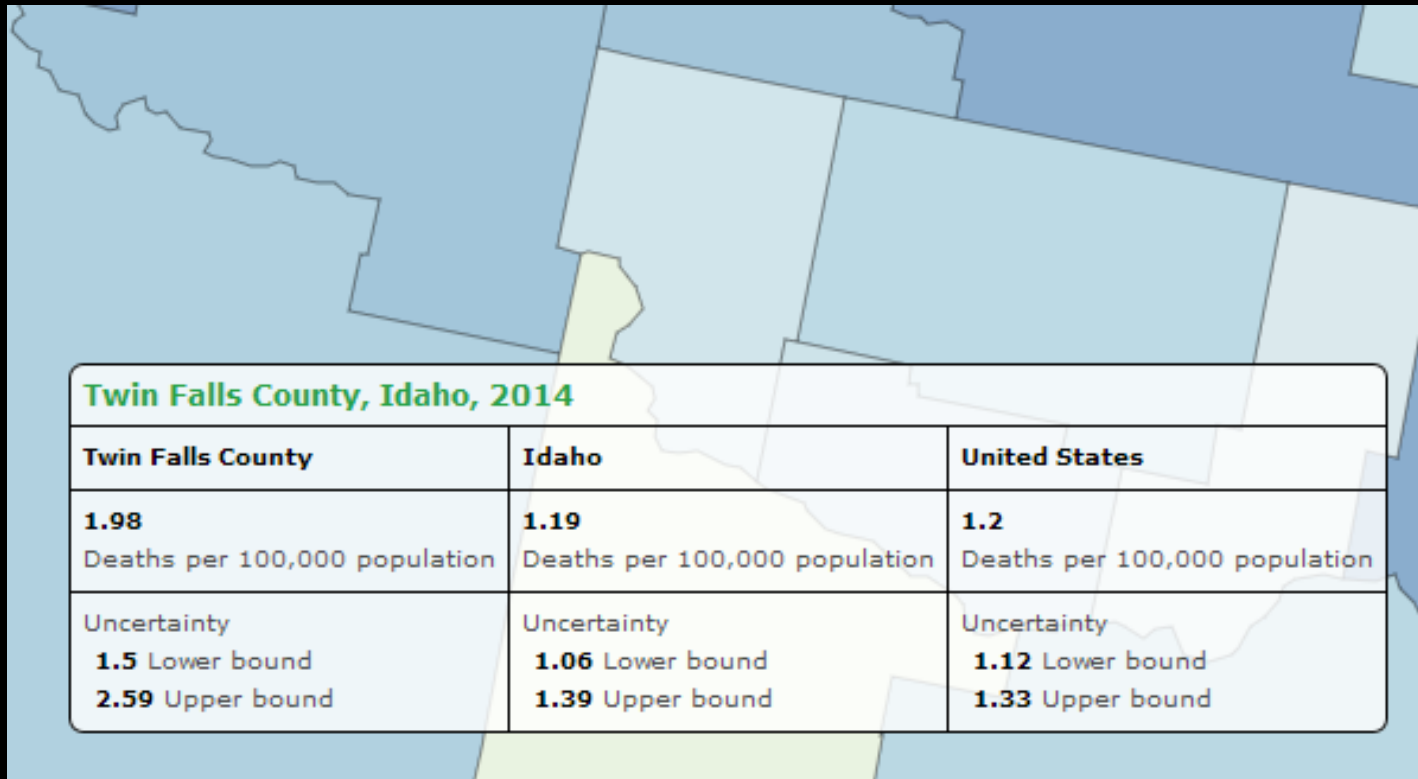
## Suicide Rates...

# Preliminary Findings....



COPD...

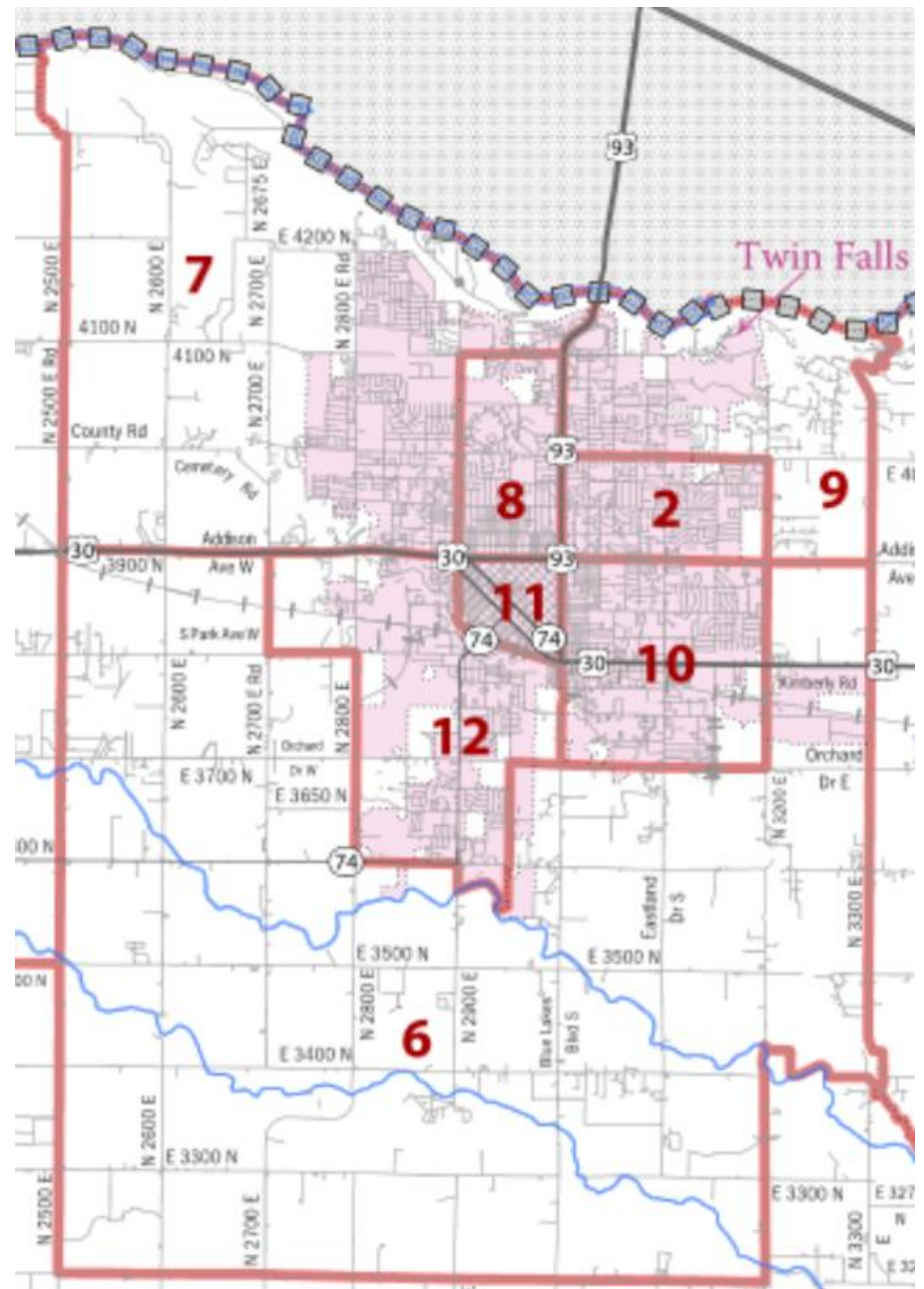
# Preliminary Findings....



## Asthma Rates...



# Census Tracts...



# Some Basic Information

Tract	Hot Spot %	Weighted HS%	TotalPop	< 19	> 65	Obesity Rate	No Car %	Hispanic	PctBelPov	SNAP w<18	%HSGrad	Renter %	PctGT30Ren	LI/LFA	Binge Drinking	Unemployment	% Disabled	Uninsured	Substandard Housing	Average Age
2	29%		6317	26.1%	19.00%	2	6%	13%	16.6%	10%	91%	25%	38%	No	3	5%	17%	12%	24.1%	41.7
6	21%		3060	24.9%	20.7%	2	2%	7%	12.9%	7%	91%	13%	45%	No	2	2%	13%	10%	33.6%	46.3
7	19%		12414	33.9%	12.9%	2	1%	12%	15.6%	5%	95%	39%	41%	Yes	3	2%	10%	13%	28.1%	32.6
8	42%		5953	28.4%	11.9%	2	6%	12%	18.6%	15%	87%	36%	61%	No	4	4%	13%	19%	37.4%	29.7
9	38%		5132	28.5%	22.5%	1	11%	9%	7.5%	7%	91%	24%	68%	Yes	1	4%	15%	6%	33%	45.8
10	58%		9138	29.6%	13.9%	2	4%	16%	19.3%	23%	83%	38%	51%	Yes	4	2%	12%	20%	30.5%	34.3
11	71%		3728	24.1%	10.4%	3	13%	16%	26.2%	28%	85%	60%	61%	No	3	6%	15%	24%	40.8%	33.3
12	46%		7914	33.4%	9.9%	3	4%	27%	16.2%	14%	83%	33%	45%	No	3	9%	12%	14%	35.7%	30.3



# Some Basic Information

Tract	Median Age
2	41.7
6	46.3
7	32.6
8	29.7
9	45.8
10	34.3
11	33.3
12	30.3

Tract	Disability Rate
2	17.3%
6	12.7%
7	10.4%
8	13.3%
9	14.8%
10	12.1%
11	15.0%
12	11.7%



# Some Basic Information

Tract	% Below Poverty Status
2	16.6%
6	12.9%
7	15.6%
8	18.6%
9	7.5%
10	19.3%
11	26.2%
12	16.2%

Tract	%HH SNAP
2	9.9%
6	7.0%
7	5.1%
8	14.9%
9	7.1%
10	23.3%
11	28.0%
12	14.0%



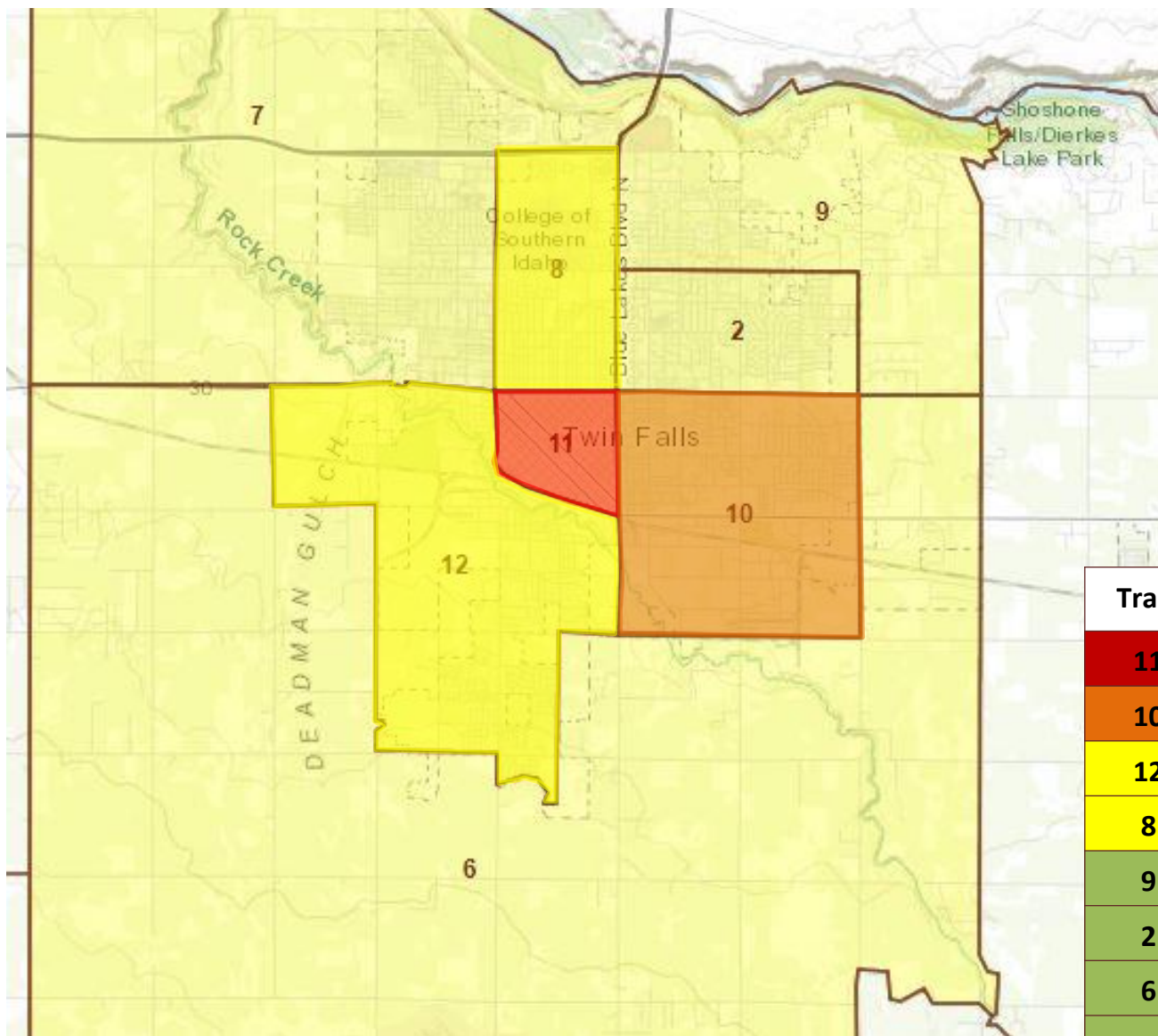


# Some Basic Information

Tract	Health Insurance %
2	70.8%
6	78.1%
7	73.4%
8	69.5%
9	76.8%
10	54.1%
11	50.5%
12	65.6%

Tract	HH% No Vehicle
2	5.5%
6	2.4%
7	1.1%
8	5.6%
9	10.5%
10	4.3%
11	12.7%
12	3.6%

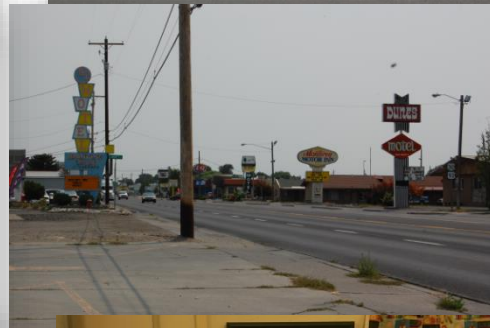




Tract	% of points
11	71%
10	58%
12	46%
8	42%
9	38%
2	29%
6	21%
7	19%

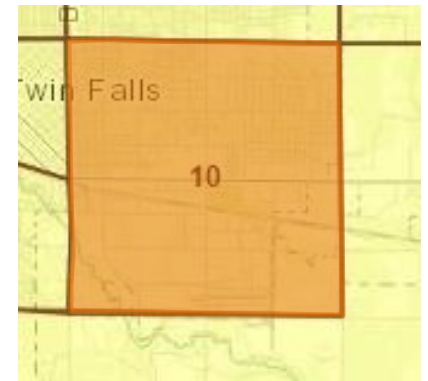


# On the ground findings...Tract 11



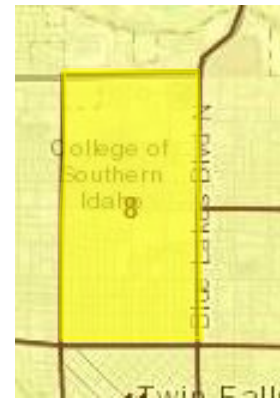


# On the ground findings...Tract 10



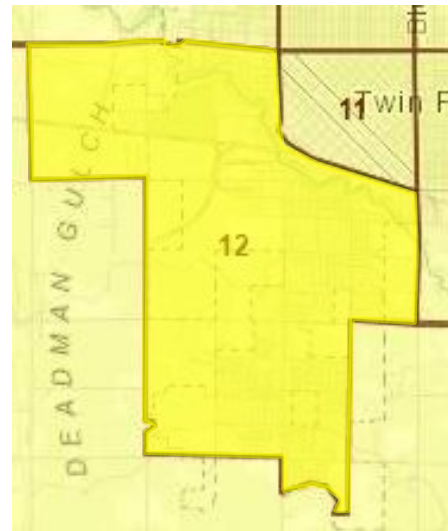


# On the ground findings...Tract 8





# On the ground findings...Tract 12





# Interviews...Done

**Twin Falls Police Department**

**Twin Falls Parks & Recreation**

**Twin Falls Fire Department**

**Twin Falls Senior Center**

**Idaho Dairyman's Assoc.**

**Magic Valley HS**

**O-Leary MS**

**Robert Stuart MS**

**Bickel Elem**

**IB Perrine**

**Lincoln**

**Morningside**

**Mustard Seed Clinic**

**La Posada**

**SC Community Action Partnership**

**Wellness Tree Community Clinic**

**Community Council of Idaho**

**Stanton Healthcare**

**Private Practice Psychiatrist**

**Family Health Services**

**Interlink Volunteer Caregivers**

**Boys & Girls Club**

**CSI Office on Aging**

**Valley House Homeless Shelter**

**Twin Falls School District**

**Urban Renewal**

**SCPHD**

**City Library**



# Some Great News...

- Street improvements
- Community seen as “cleaner”
- Significant business growth
- Joining Forces campaign
- Dental service expansion
- Job training
- Kindergarten growth
- Tremendous generosity
- Lots of City Initiatives- housing, trails
- New EMS system
- Attempts at preventative services – colonoscopy



# Preliminary Findings

- Trauma/Crisis
- Transportation Needs
- Significant Housing Shortage
- A Deteriorating Family Network
- A Tale of North vs South



# Trauma/Crisis

- Opioids
- Stress
- Fight or Flight
- Financial
- Migrants
- Suicide



# Violent Crimes 2015

Homicides

2

Armed Robberies

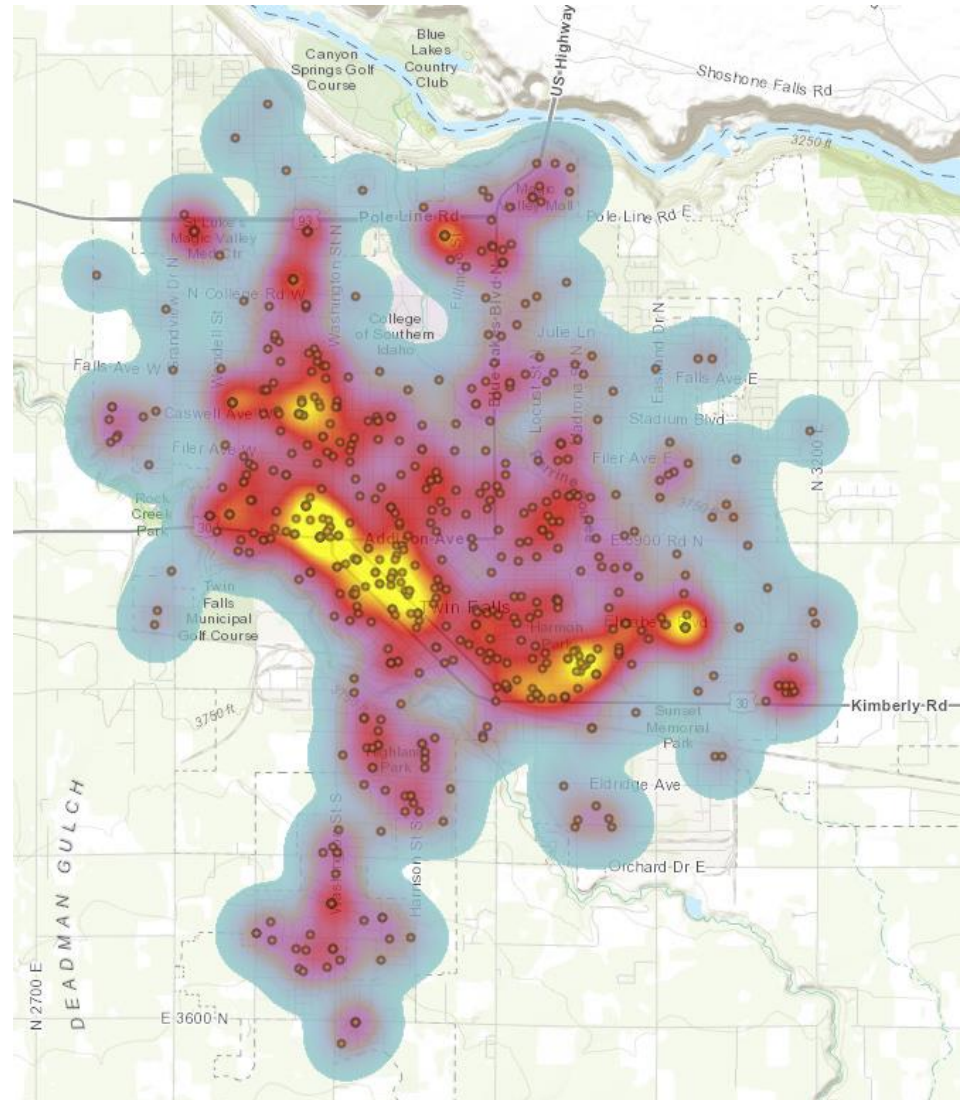
8

Rape

31

Assault/Battery

588





# Violent Crimes 2016

Homicides

4

Armed Robberies

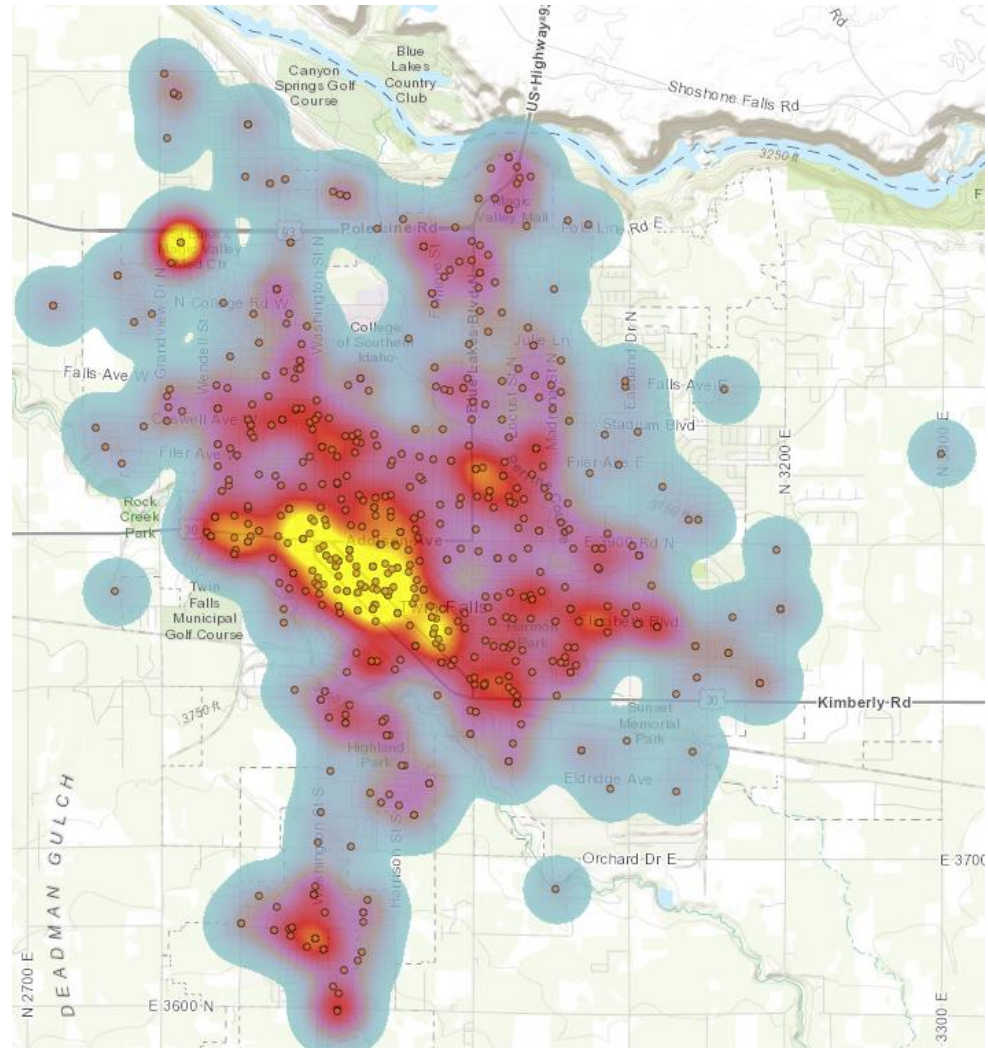
8

Rape

37

Assault/Battery

650





# Violent Crimes 2017

Homicides

2

Armed Robberies

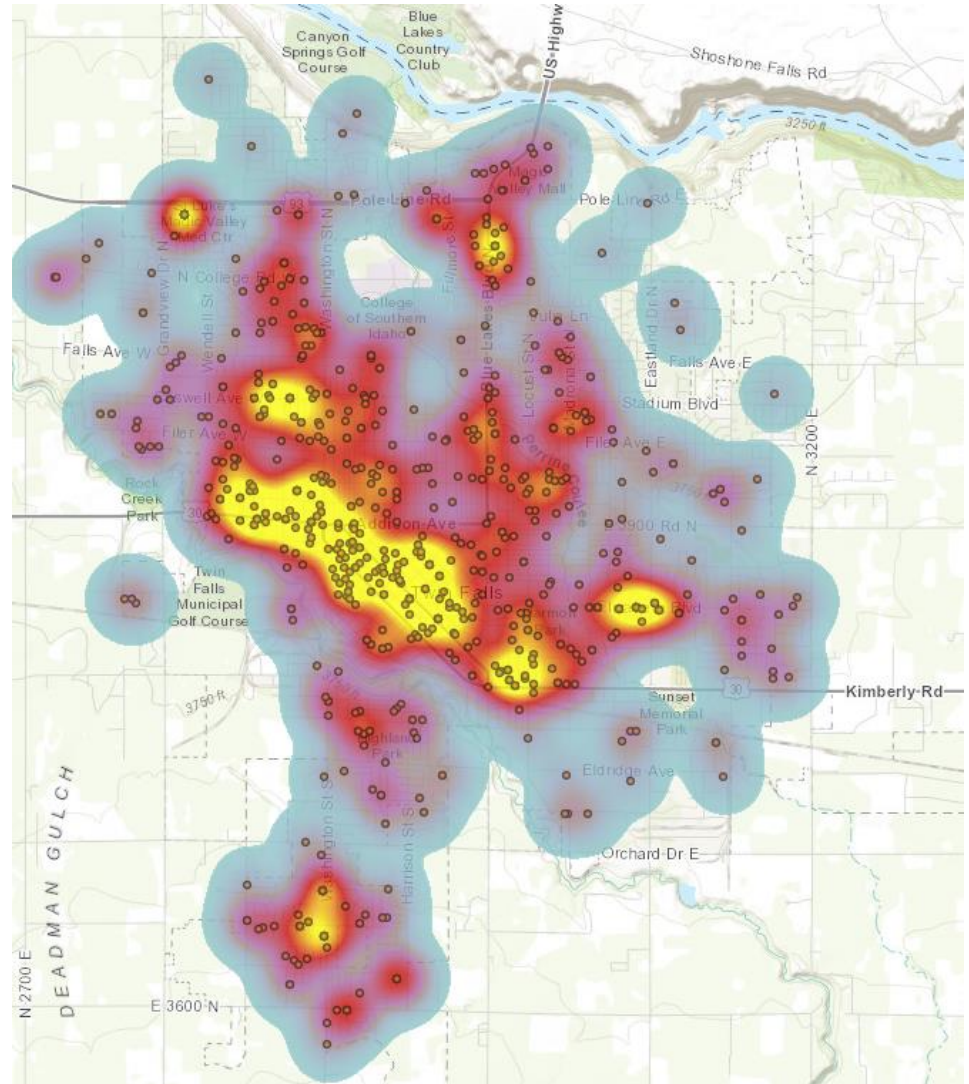
8

Rape

47

Assault/Battery

742



# Transportation Needs

- Lack of transit
- Large streets
- Missing sidewalks
- Minimal bicycle facilities
- Ride providers strained
- Poleline becoming Blue Lakes





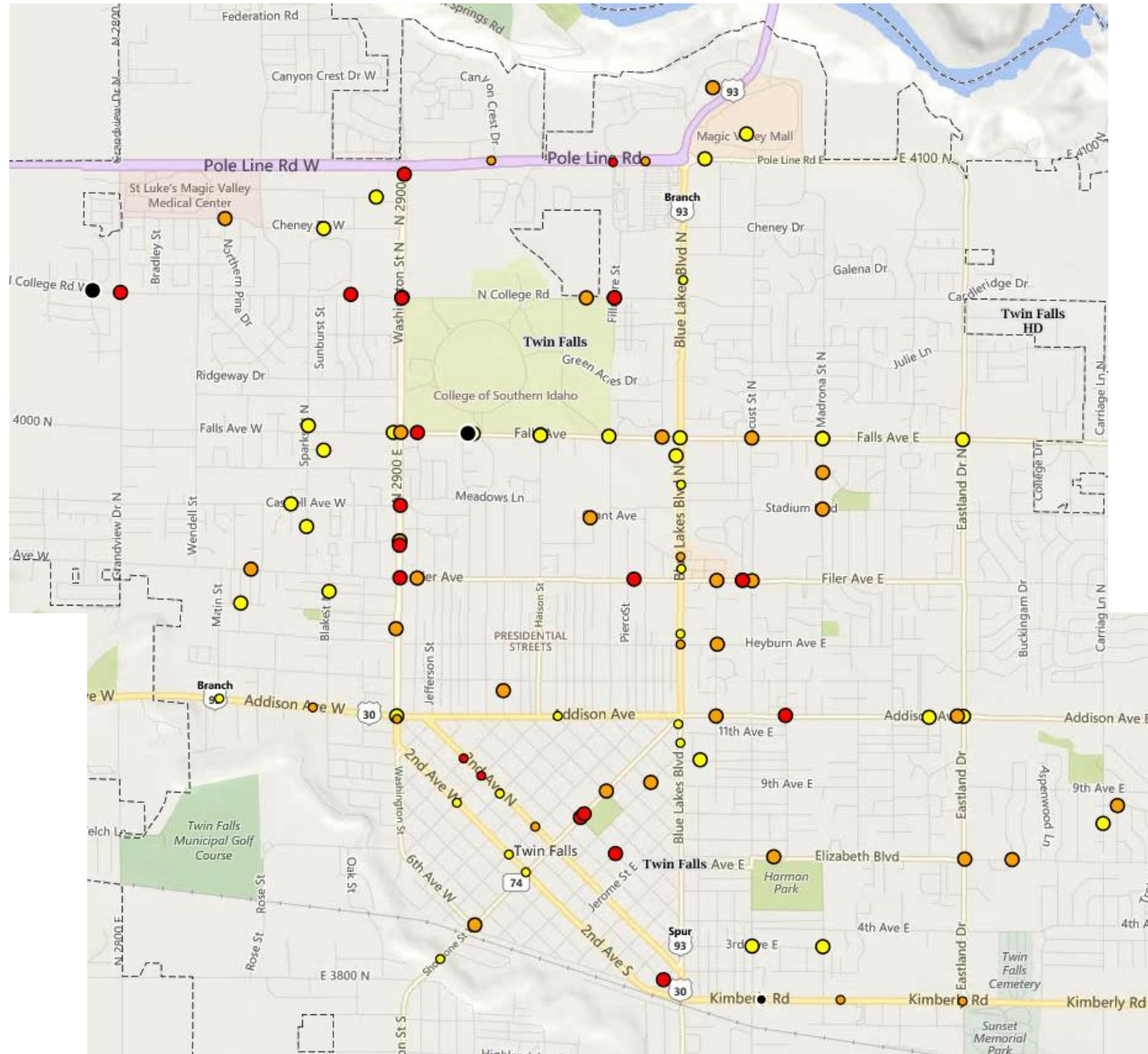
# Pedestrian & Bicyclist Crashes

**Fatalities**

**3**

**Disabling**

**19**



# Significant Housing Shortage

- Significant market pressures
- Low vacancy rates
- Increasing prices
- Wage gaps
- Influx of residents, workers





# Housing Data

<u>Month</u>	<u>All Beds</u>	<u>1 Beds</u>	<u>2 Beds</u>
<b>9/2011</b>	<b>\$693</b>	<b>\$543</b>	<b>\$581</b>
9/2012	\$600	\$497	\$599
9/2013	\$588	\$409	\$578
9/2014	\$627	\$530	\$664
<b>9/2015</b>	<b>\$659</b>	<b>\$587</b>	<b>\$652</b>
9/2016	\$637	\$401	\$689
9/2017	\$698	\$527	\$670
<b>9/2018</b>	<b>\$770</b>	<b>\$425</b>	<b>\$766</b>

September 2018, average rent for an apartment in Twin Falls, ID is \$770, a 9.35% increase from last year's average rent \$698.



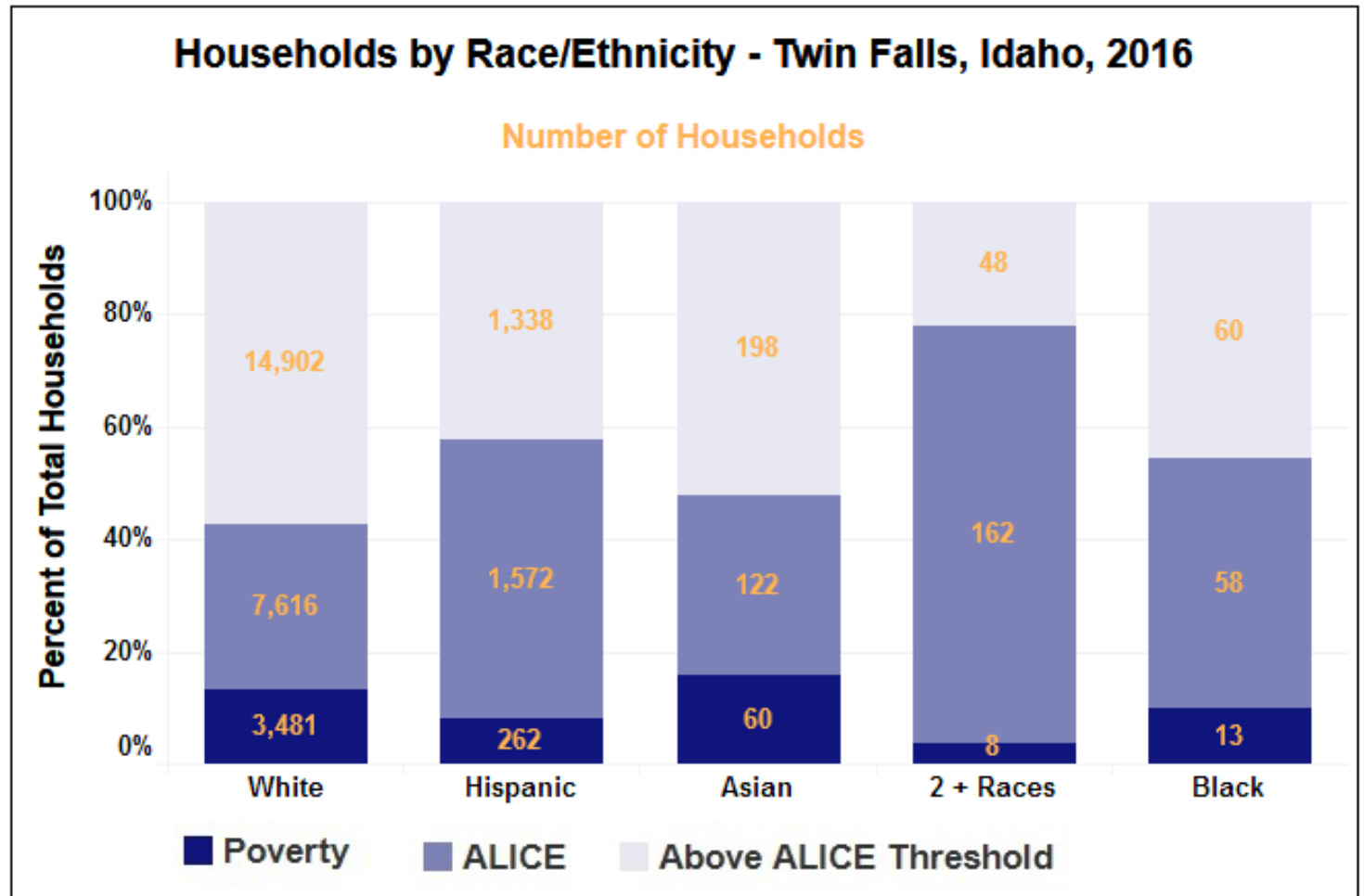
# Housing Data

**Household Survival Budget - Twin Falls, Idaho, 2016**

	Single Adult	2 Adults, 1 Infant, 1 Preschooler
<b>Housing</b>	\$592	\$764
<b>Child Care</b>	\$0	\$896
<b>Food</b>	\$177	\$586
<b>Transportation</b>	\$346	\$692
<b>Health Care</b>	\$196	\$728
<b>Technology</b>	\$55	\$75
<b>Miscellaneous</b>	\$163	\$413
<b>Taxes</b>	\$259	\$391
<b>Monthly Total</b>	\$1,788	\$4,545
<b>ANNUAL TOTAL</b>	\$21,456	\$54,540
<b>Hourly Wage</b>	\$10.73	\$27.27

*Source: U.S. Department of Housing and Urban Development; U.S. Department of Agriculture; Bureau of Labor Statistics; Internal Revenue Service; Tax Foundation; and Idaho Department of Health and Welfare, 2016.*

# Housing Data



Source: American Community Survey, 2016, and the ALICE Threshold, 2016.

Note: Data in all categories except Two or More Races is for one race alone.

# A Deteriorating Family Network

- Drug influenced
- Low wages = two jobs
- Grandparents raising kids
- Volunteers down
- Declining participation in school
- Lack of drive, motivation





# Deteriorating Family Network-Homelessness

Year	Student Enrollment	Total Identified	Total including siblings NOT enrolled
2014	8686	305	350
2015	8898	295	354
2016	9179	400	486
2017	9291	395	411
2018	9483	422	563

- 28% increase in last 5 years
- 54% of homeless students are at elementary school level
- 13% are living in shelters
- 6% are living in a trailer/car



# Laurel Park, North Carolina Comprehensive Plan





# Laurel Park, NC



- 2,300 population
- Borders Hendersonville
  - County seat, 20,000
- Retirement community interested in diversifying its population base & attractiveness
- Growth pressures from greater Asheville region and within County





# HEALTH & PLANNING PARADIGM

Most Effort



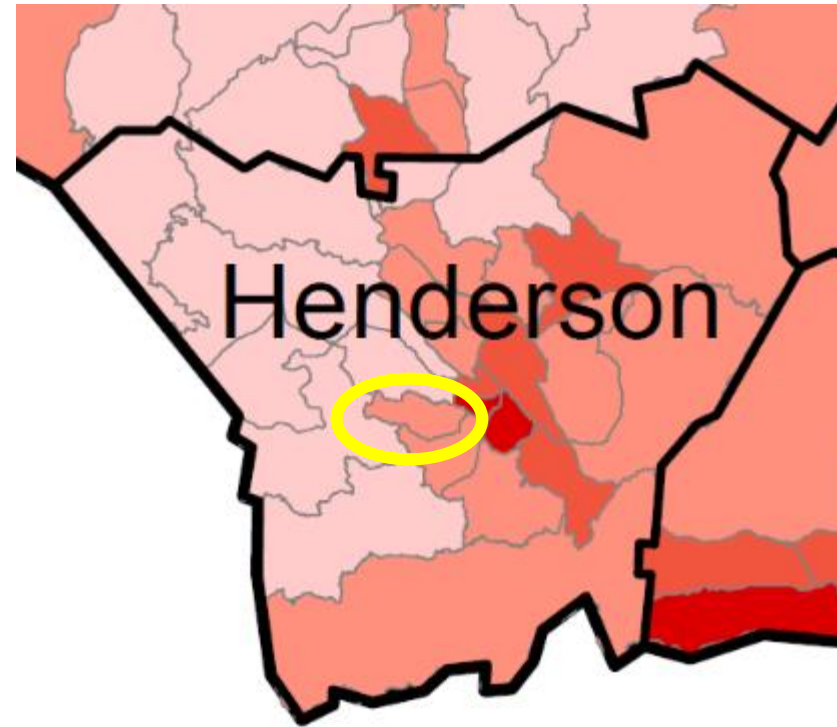
Least Effort

Health as a component of the plan



# State Center for Health Statistics Data

- High Heart Disease, Stroke Mortality, Lung/Brochus Cancer Incidence
- Social Determinants of Health: Moderate to high income
- Higher percentage of rental households
- High senior population



# County Community Health Assessment

## Activity Limitations Reported by Henderson County Residents

Limitation	% Reporting
Fracture/Bone/ Joint Injury	22.3%
Arthritis/ Rheumatism	18.1%
Back/Neck Problem	15.9%
Difficulty Walking	6.7%
Heart Problem	1.5%
Lung/Breathing Problem	1.2%
Mental/Depression	1.1%
Other	33.2%

Figure 53. Sustained a Fall-Related Injury in the Past Year (WNC Healthy Impact Survey)  
(Among Adults 65+ Who Have Fallen in the Past Year)  
(Western North Carolina, 2012)

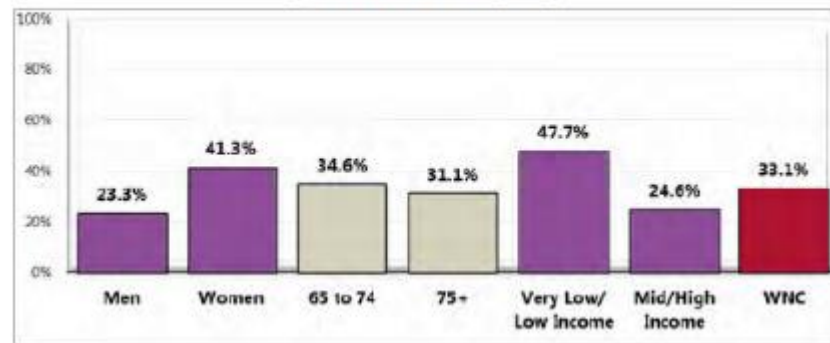
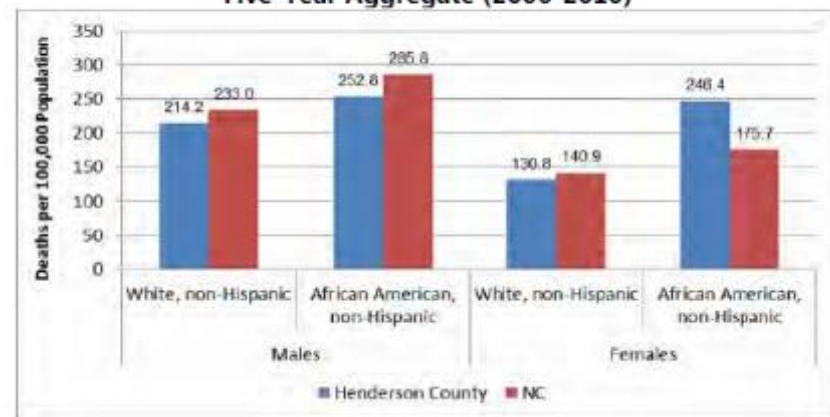


Figure 8. Gender and Racial Disparities in Heart Disease Mortality  
Henderson County and NC  
Five-Year Aggregate (2006-2010)

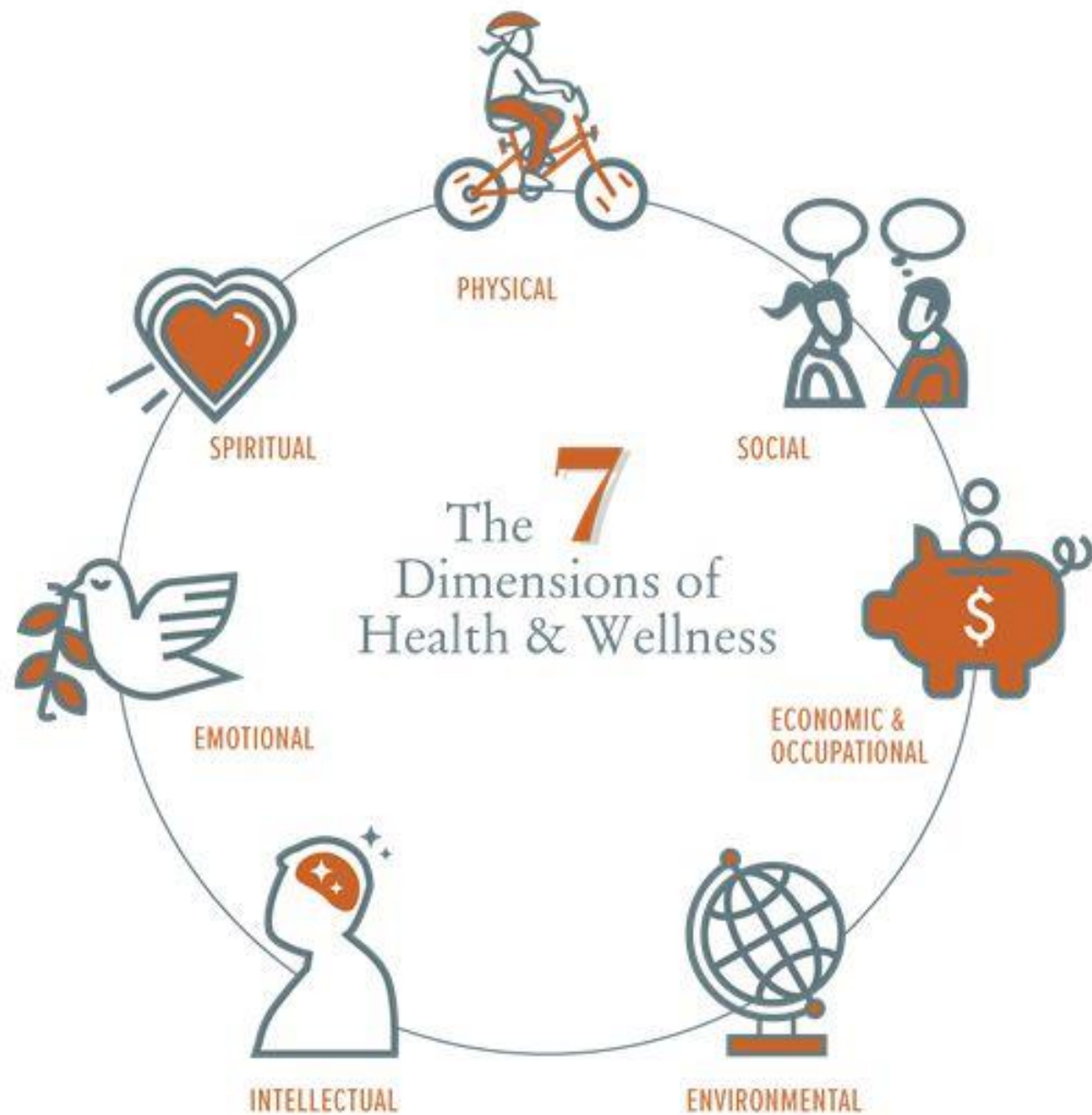






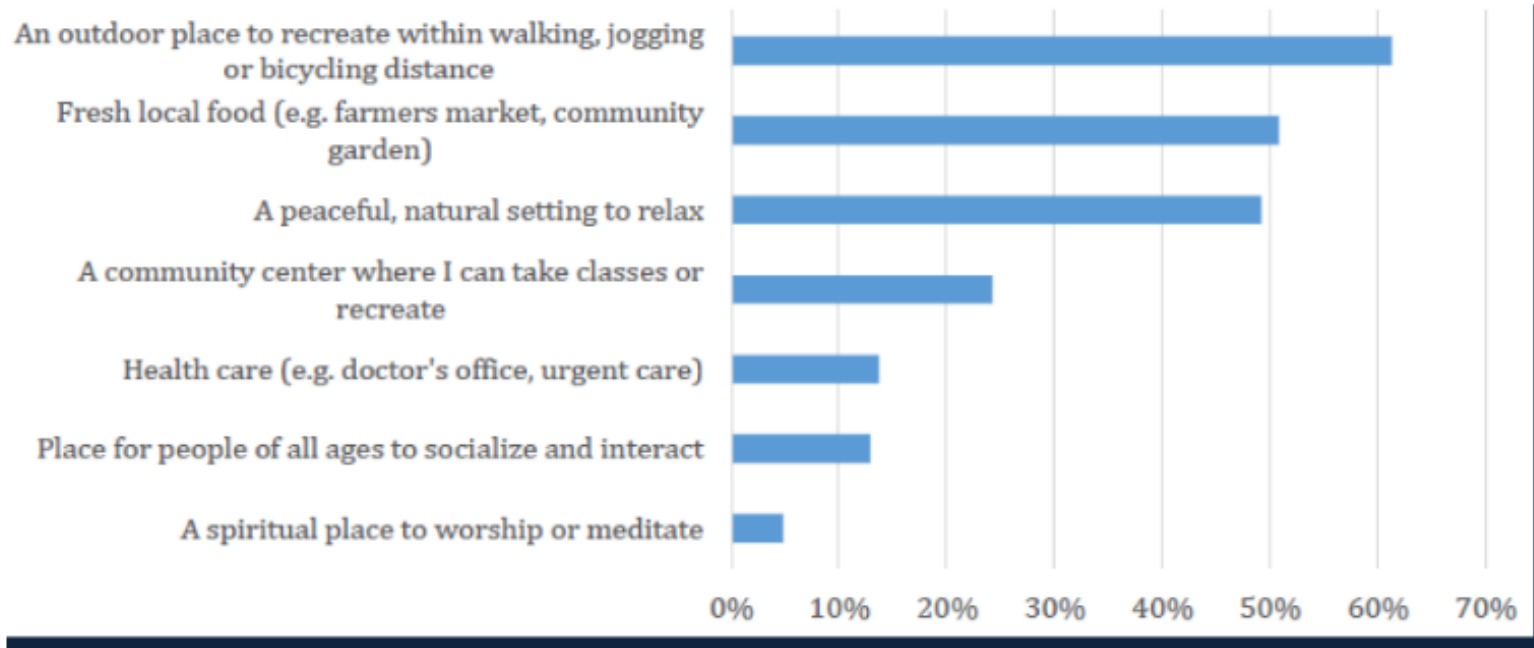
# Major Planning & Health Themes

- 52% older adults (65+) vs. 30% in County
  - That isn't changing quickly
- Youth accommodations & obesity
- Fall prevention for older adults
- Diabetes rates



# Health Questions in the Community Survey

Which resources would most benefit the health and well-being of your household if access were improved in Laurel Park?





# Laurel Park, North Carolina Comprehensive Plan



# HEALTH & PLANNING PARADIGM

Most Effort



Health as the driving factor in developing the plan

Health as an informant to the plan

Health as a component of the plan

Least Effort

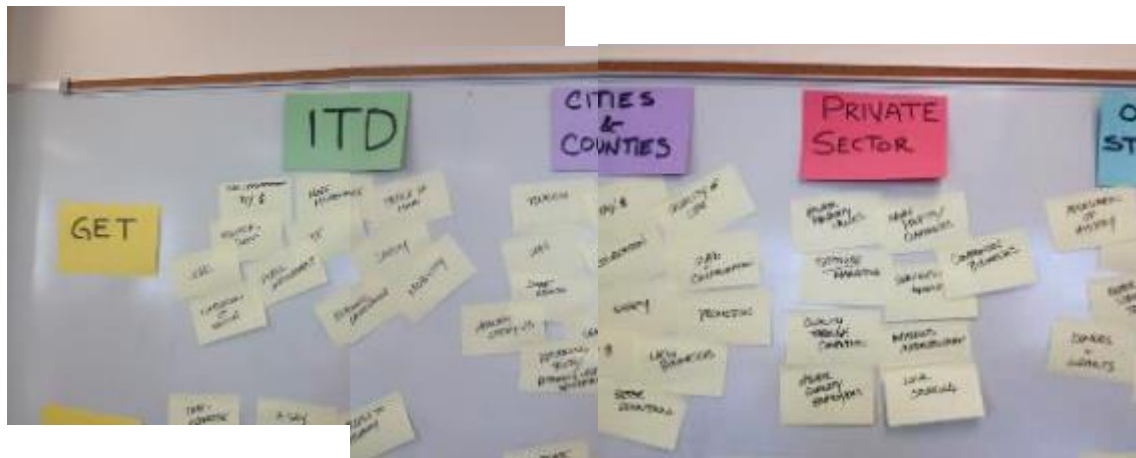
# Lightning Round

1. How can you better integrate health and planning in your community?
2. Name at least 3 steps it would take to implement that model
3. What partners would be involved?
4. How would it help the citizens of your community?



# The Give-Gain Grid

- Partnerships are based on the premise that each party has something to GIVE
- However, those partners also must GAIN something to feel the partnership is of value
- Varies among public, private and non-profit sectors
- Who are they for Alaska?





## Healthy Disparities & The Role of the Built Environment

Don Kostelec, AICP

Boise, ID

@kostelecplan