Central Lane Scenario Planning

Scenario Planning Update

September/October 2014

SPRINGFIELD OREGON | COBURG OREGON | Eugene | LANE COUNTY OREGON | LTD | LCOG | Oregon Department of Transportation

What is scenario planning?

- Scenario planning involves considering alternative, plausible futures
- In the Central Lane region, we are doing this to determine:
  - If current policies achieve regional goals
  - Alternative policies or strategies that could be considered to achieve goals
  - Likely outcomes of policy changes

Scenario planning goals

- Economic vitality
- Health
- Equity
- Greenhouse gas reduction
- Flexibility for jurisdictions in the region

Where are we in the process?

Fall 2013

Step 1: Understand
- Understand existing policies
- Develop evaluation measures
- Determine baseline for comparison

Winter-Summer 2014

Step 2: Test and learn
- Develop alternative scenarios
- Evaluate and compare

Fall 2014/Winter 2015

Step 3: Refine and select
- Refine scenarios
- Tailor individual choices for each jurisdiction
- Cooperatively select a preferred scenario

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Your job: Cooperative selection

- Consider at least one scenario that meets the state's GHG reduction goal
- Consider public input
- Cooperatively select a preferred scenario in 2015
- Report back to the state legislature during 2015 session
- LTD's role is not explicit in state legislation but the Board of Directors will be consulted during the selection process
- Jurisdictions are not required to implement the preferred scenario

Local government partners as defined by HB 2001

| Lane County Board of Commissioners | Eugene City Council | Springfield City Council | Coburg City Council |

Greenhouse gas reduction targets

- State identified targets for each metro area.

- These targets support state goal for greenhouse gas reductions from all sectors.

- Region is not required to meet target.

Per Capita GHG reduction over 2005 levels (light vehicles)

Metropolitan area	Adopted 2035 target
Portland Metro	20%
Salem-Keizer	17%
Corvallis	21%
Eugene-Springfield	20%
Bend	18%
Rogue Valley	19%

CRO and state target: Related, but different goals

Climate Recovery Ordinance:

- 50% reduction in community-wide fossil fuel use over 2010 levels by 2030.
- Includes fossil fuel use from all sources

State Target for Central Lane MPO:

- 20% reduction in per capita greenhouse gas emissions over 2005 levels by 2035.
- Only measures emissions from light vehicles
- Does not account for the reductions that accrue from changes to the vehicle fleet or fuels.

How do the CRO and the state target compare?

- Eugene's ordinance is more aggressive than the state target

- Meeting the state target would achieve 90% of the City's fossil fuel goal

- Eugene will need to do everything in the preferred scenario and then some to meet the CRO
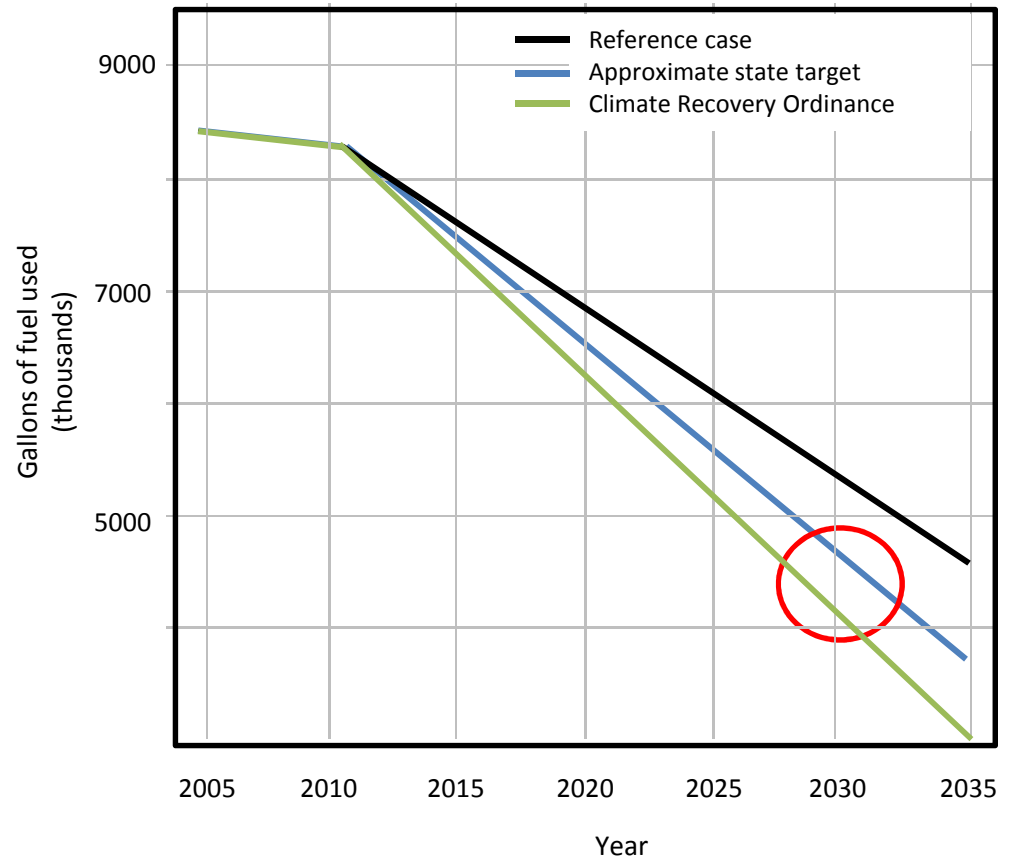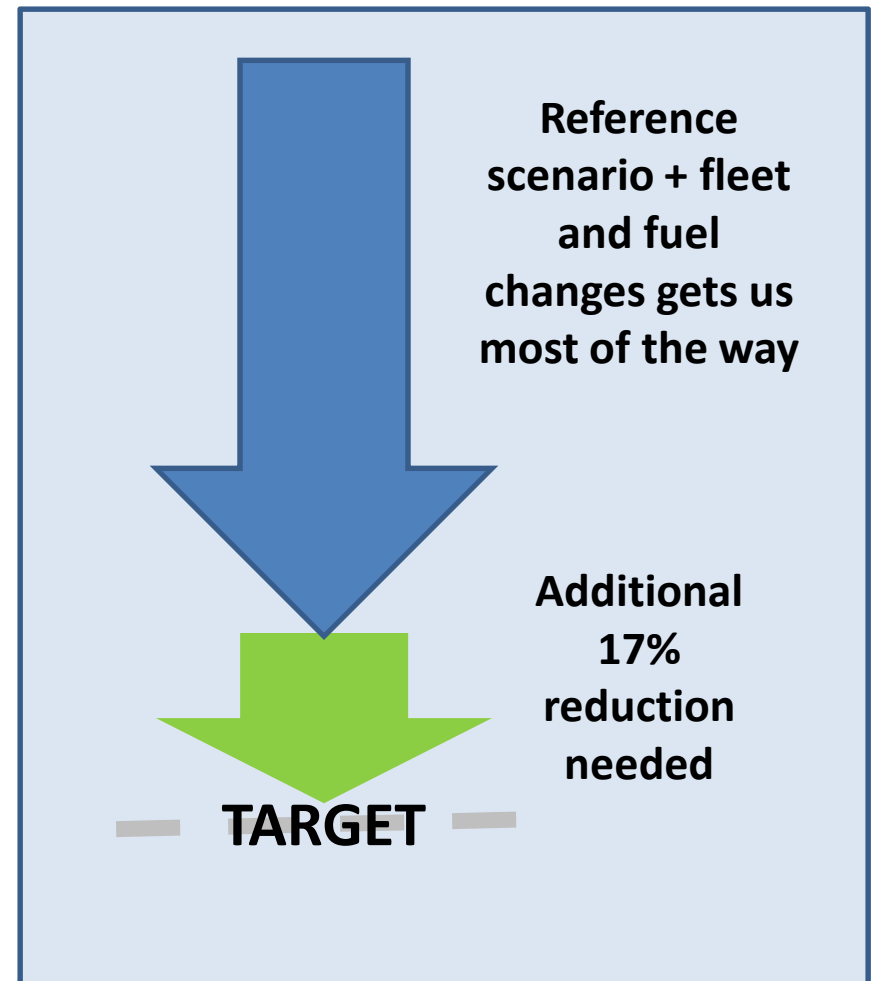
What does 2035 look like?

- Current/ emerging plans are implemented
  - Envision Eugene
  - Springfield 2030
  - Coburg's comprehensive plan
- More than 64,000 new people in the region
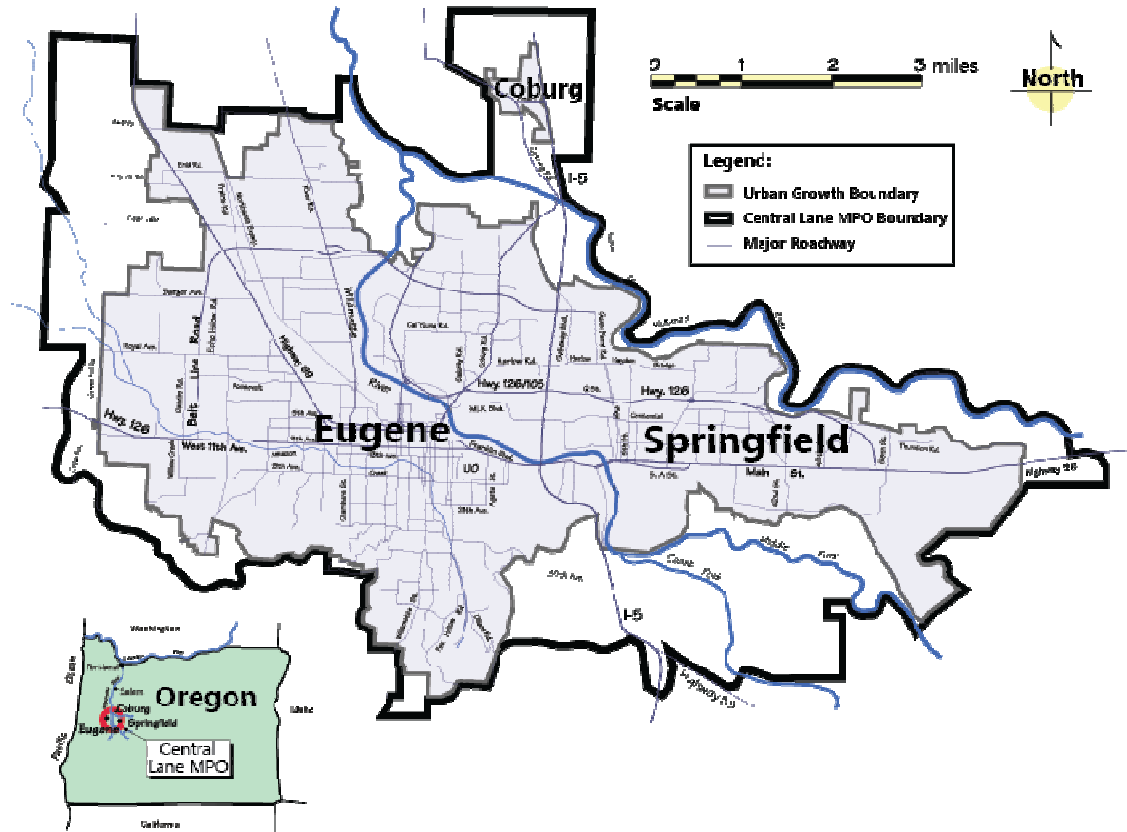
What happens if we implement existing policy with expected revenues?

- Likely changes in fleet and fuels would result in major emission reductions

- Current local and regional policies result in a 3% reduction (compared to 2005)

Reference scenario + fleet and fuel changes gets us most of the way

Additional 17% reduction needed

TARGET

What happens if we implement existing policy with expected revenues?

- Fuel consumption decreases by more than 45%
- Local gas tax revenues decrease
- People drive slightly less than today, drive more efficient vehicles; delay increases
- Vehicle operation costs decrease, but ownership and maintenance costs increase
- Biking increases significantly
- Air quality improves

What else can we do?

- Invest more resources consistent with existing policies or implement new policies

- Benefits include MORE:
  - ✓ Household transportation cost savings
  - ✓ Reduction in travel delay and associated costs
  - ✓ Funding for infrastructure preservation
  - ✓ Cleaner air and reduced water consumption
  - ✓ Positive changes in public health and reduced healthcare costs

Scenario development and evaluation

Two new scenarios

**Scenario A:
Reference
scenario**

Shows the results of
implementing
adopted plans or
recent policy
direction.

**Scenario B:
Enhance existing
policy**

Shows the results of
maximizing actions that
are consistent with
recent policy direction
but go beyond what we
can expect to achieve
without new revenues
or other action.
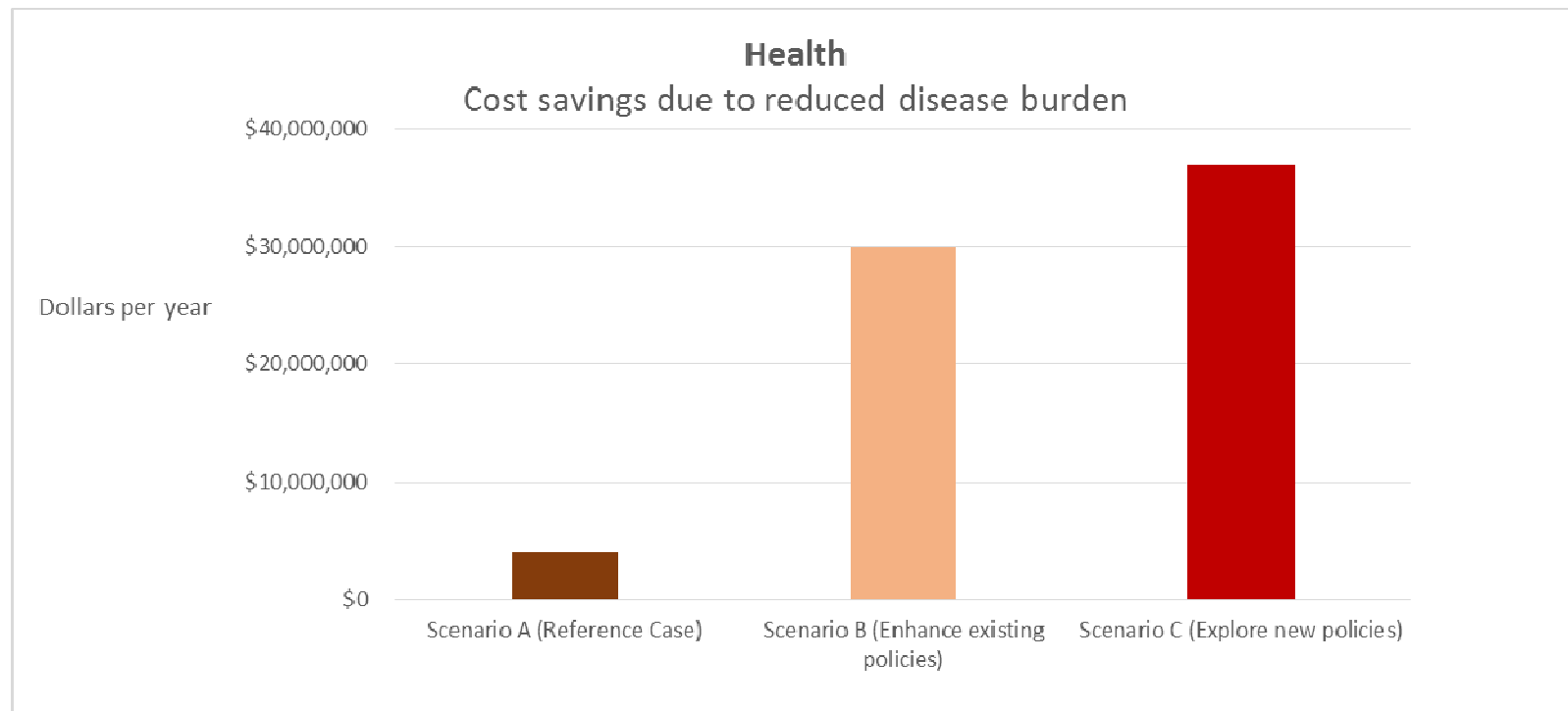
**Scenario C:
Explore new
policies**

Shows the result of
new policies or actions
that may build on
existing policy direction
or explore new actions.

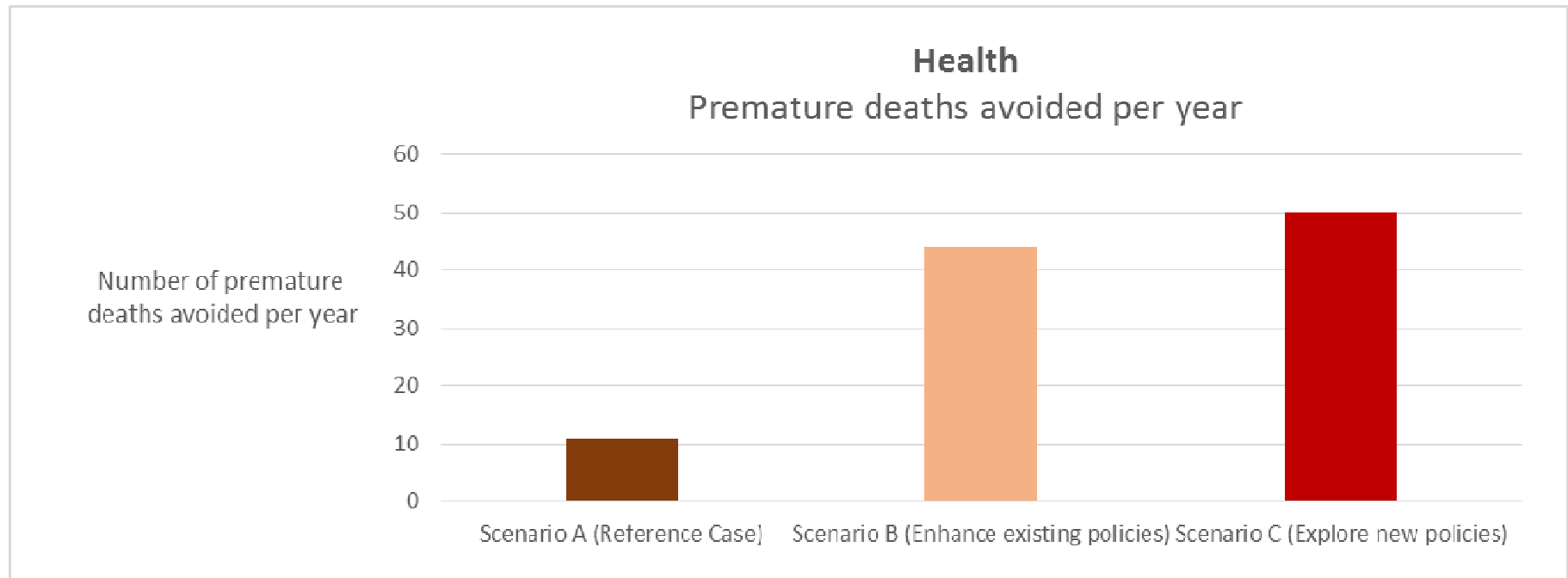# Scenarios B and C meet the state's GHG reduction target for our region

Scenario A (Reference Case)   Scenario B   Scenario C

2010 GHG level

Target
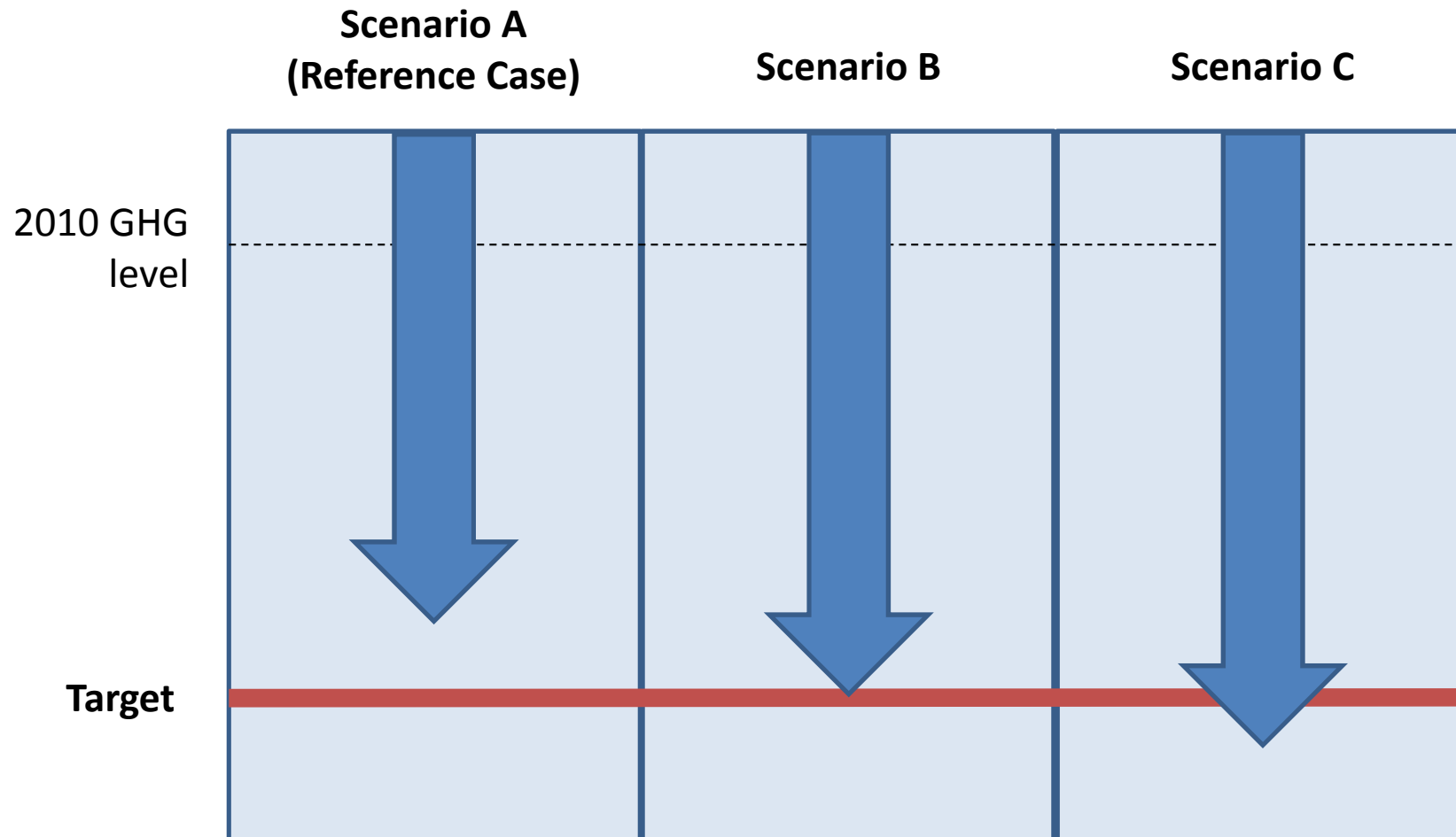
What we learned: public health

- Increases in active transportation result in cost savings
- Savings equate to about $250 per household each year

Health
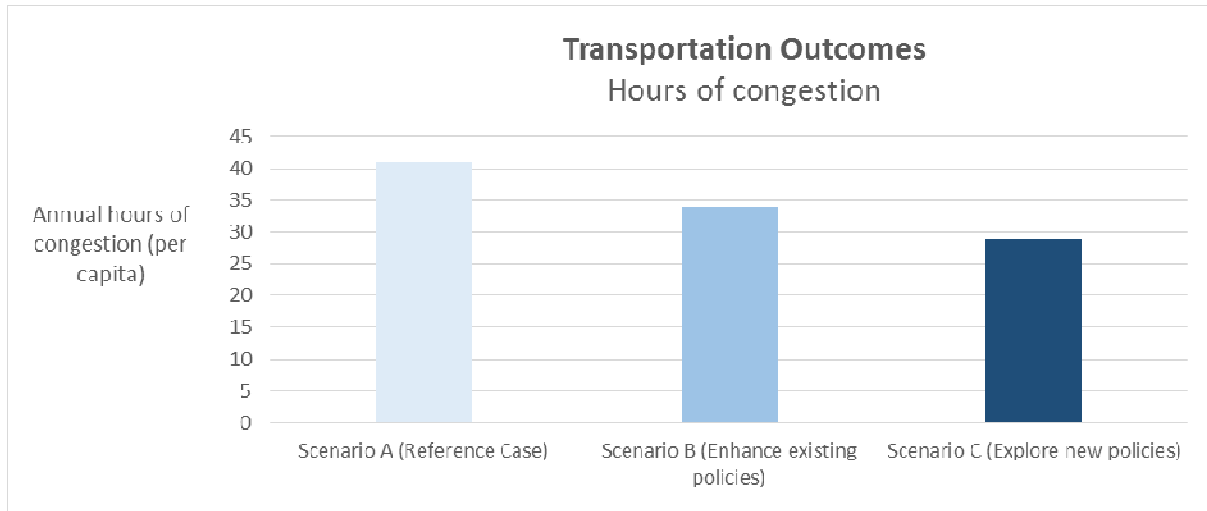Cost savings due to reduced disease burden

Dollars per year

$40,000,000	
$30,000,000	
$20,000,000	
$10,000,000	
$0	

Scenario A (Reference Case)   Scenario B (Enhance existing policies)   Scenario C (Explore new policies)

What we learned: public health

- Reduction in premature deaths due to increases in active transportation

Health
Premature deaths avoided per year

Number of premature deaths avoided per year

60	
50	
40	
30	
20	
10	
0	

Scenario A (Reference Case)   Scenario B (Enhance existing policies)   Scenario C (Explore new policies)

What we learned: transportation

Transportation Outcomes
Hours of congestion

Annual hours of congestion (per capita)

| | Scenario A (Reference Case) | Scenario B (Enhance existing policies) | Scenario C (Explore new policies) |

Per capita vehicle miles traveled and delay both decrease

Transportation Outcomes
Vehcile miles traveled (VMT)

Scenario A (Reference Case)

Scenario B (Enhance existing policies)

Scenario C (Explore new policies)

17   18   19   20   21   22   23
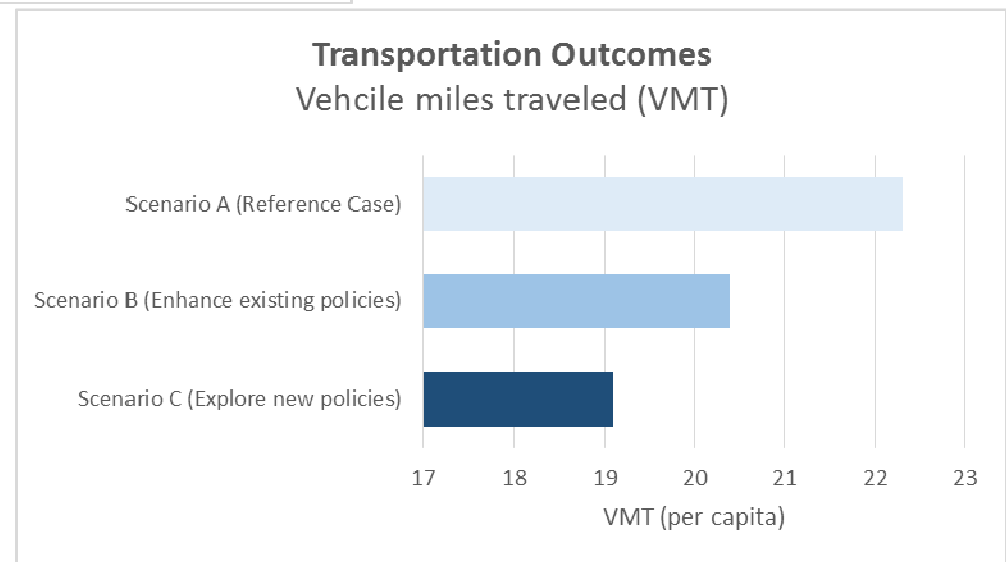
VMT (per capita)

What we learned: biking and fuel consumption

Biking increases

Transportation Outcomes
Bicycle travel

Scenario A (Reference Case)

Scenario B (Enhance existing policies)

Scenario C (Explore new policies)

0   0.2   0.4   0.6   0.8   1   1.2   1.4   1.6   1.8

Bicycle miles travelled (per capita)

Energy Consumption and GHG Emissions
Petroleum fuel consumption

Annual gallons (per capita)

160
140
120
100
80
60
40
20
0

Scenario A (Reference Case)   Scenario B (Enhance existing policies)   Scenario C (Explore new policies)

Per capita fuel consumption decreases

What we learned: household costs

Driving Costs as a Percentage of Household Income
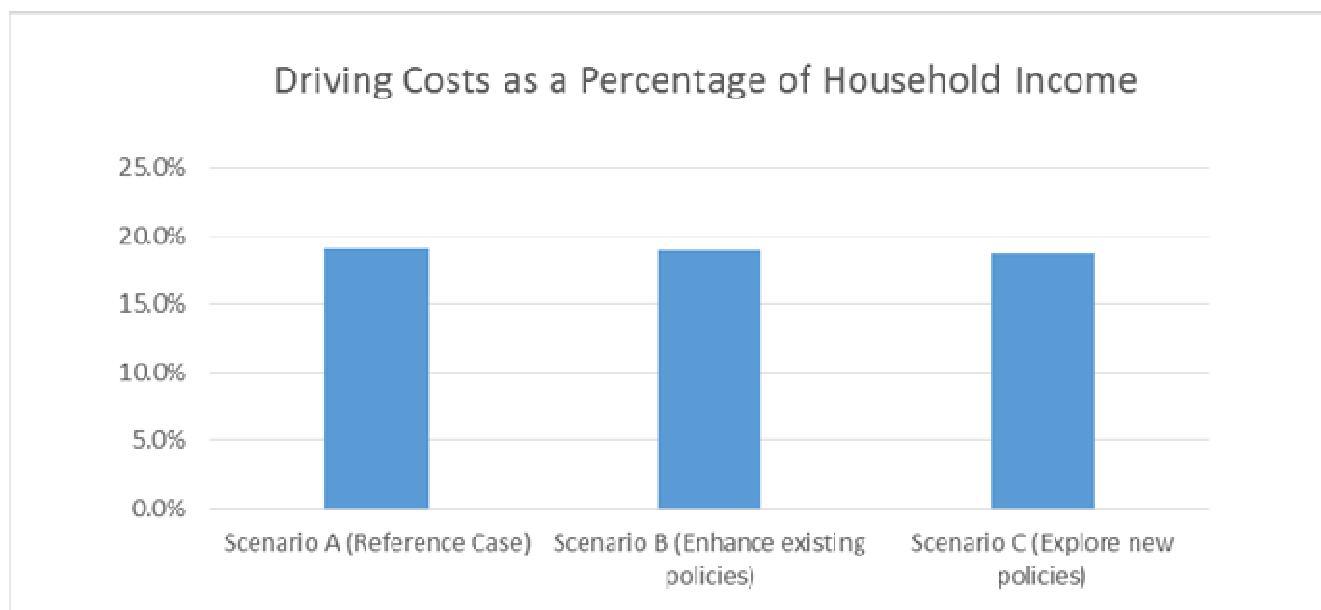
Households spend roughly the same proportion of income on driving across all scenarios.

What is working?

- Continue to benefit from existing policies and a relatively compact urban form

- Divert more trips to biking and transit and provide more choices
  - New biking and walking facilities
  - More education and marketing to drive behavior change

- Make improvements to make our road system work more efficiently

What is still unclear?

- Equity – how benefits and impacts are distributed across populations of concern is still unclear

- How much we should invest in different areas like biking, walking, transit and pricing?

Items to consider including in preferred scenario

Today's topic: Consider some items to include in the preferred scenario

Becomes part of preferred scenario

More policy discussion required to determine existing policy or bigger investment

- Roadway optimization
- Fleet and fuels

- Education and marketing programs
- Support statewide implementation of pay-as-you drive insurance

- Transit
- Biking
- Taxes and fees related to driving
- Parking (work and non-work trips)

Existing policy

Bigger investment

Future discussion

Consider: Continue existing policy

- Roads policies
  - Continue to pursue existing policies to make better use of our roadways
- Fleet and fuel assumptions
  - Use the state's assumptions

Consider: Increased regional support

- Pay as you drive insurance
  - Assume the state achieves nearly universal adoption
- Education and marketing programs
  - Look at implementation actions that represent a major focus on these voluntary programs

Consider: Future discussion

- Bicycle investment
  - How much investment can we make? What mode shift is realistic in each city?
- Transit investment
  - How much investment can we make? What mode shift is realistic in each city?
- How should we manage parking?
  - Is paid parking for **work trips** desirable and achievable in neighborhoods beyond UO, downtown Eugene and downtown Springfield?
  - Is paid parking for **non-work (short duration) trips** desirable above current levels (reference case)?
- How do we pay for our system?
  - Gas tax or fee based on miles driven?
  - Do we want to pursue other fees like a carbon tax?

Results of implementing recommendations

Scenario A
(Reference Case)

Recommendations

2010 GHG level
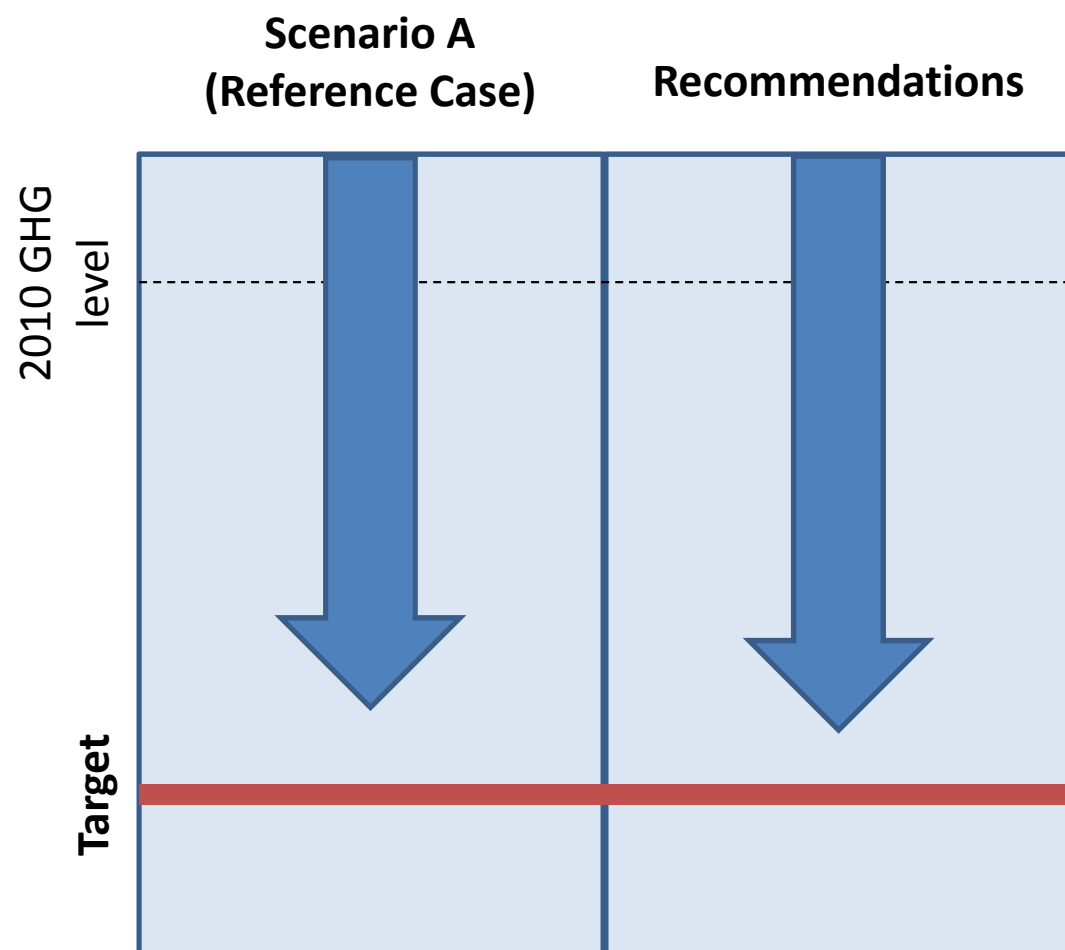
Target

- Recommendations combined with the reference case gets close to the target
- Adding a mix of enhanced policies and new polices can achieve the target

Next steps

Evaluate policy choices

- Develop refined scenarios that combine remaining strategies in different ways
- Test those and consider the implications of different "levels" of intervention
- Consider high-level costs and benefits of implementation actions

Select a preferred scenario in 2015

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