



# The Importance of Housing

How housing impacts individual and community health and well-being

Alaska Public Health Association's Annual Summit  
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Carol Gore, CEO

# Summary: What the Evidence Tells Us about Housing and Health

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- The physical condition of our homes greatly impacts our health and wellbeing
- Housing instability harms health
- Affordable, quality housing reduces health care costs





# What do we mean by “housing?”

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Physical condition  
Affordability  
Stability/Homelessness  
Neighborhood context



## What are the outcomes we can measure?



Physical health  
Mental health  
Behavioral health



Health care use  
and cost



Education, income,  
public service use,  
economic development

# Physical Condition of the Home

Children exposed to allergens in the home – particularly low-income children in sub-standard housing – are at higher risk for asthma and hospitalization.

## *Effects of Asthma in One Year*



### Doctor's Visits

**7.2 million** adults  
**6.7 million** children

6.7 million children visited the doctor in 2007 for asthma issues – more than twice the number of U.S. students that graduated from high school that year.



### Emergency Room Visits

**1.11 million** adults  
**640,000** children

1.11 million adults visited the emergency room due to asthma in 2007. That's almost three times the current population of Minneapolis.



### Hospitalizations

**299,000** adults  
**157,000** children

157,000 children were hospitalized in 2007 for asthma symptoms – almost enough to fill every seat in California's Rose Bowl stadium twice over.

Source: National Health Statistics Report. Centers for Disease Control and Prevention, 2011.

Source: Enterprise Community Partners, Inc.



# Physical Condition of the Home

- Respiratory diseases are responsible for two-thirds of child hospitalization in rural Alaska.
- Research: Home ventilation improvements in 68 homes and 211 children in eight villages in Southwest Alaska resulted in decreased hospitalization, clinic visits and school absences:

Indicator	Cases two weeks prior to home modification	Cases two weeks following home modification	Cases 1 year following home modification
Child hospitalization for respiratory illness	10	1	0
Child clinic Visits	36	17	12
Missed school	18	14	3

Source: ANTHC, Ongoing

# Physical Condition of the Home

Table 1: Overview of impacts of improved energy efficiency on health and well-being

Energy Efficiency Measure	Primary Housing Effect	Secondary Housing Effect	Expected Health Outcomes
Insulation	Heating/cooling retained within dwelling	<ul style="list-style-type: none"> <li>• Comfortable indoor temperatures</li> <li>• Lower indoor relative humidity</li> <li>• Reduced allergens</li> </ul>	<ul style="list-style-type: none"> <li>• Reduced deaths due to temperature extremes</li> <li>• Reduced symptoms of respiratory disease</li> </ul>
Air Sealing			
Improved Heating Systems	Heating provided to whole dwelling	<ul style="list-style-type: none"> <li>• Comfortable indoor temperatures</li> <li>• Reduced gases and particulates</li> <li>• Increased usable living space</li> </ul>	<ul style="list-style-type: none"> <li>• Reduced deaths due to cold</li> <li>• Reduced symptoms of respiratory disease</li> <li>• Reduced stress and infectious disease</li> </ul>
	Cleaner burning heating systems		
	Combustion by-products properly vented to outdoors		
Improved Cooking Systems	Cleaner-burning cooking systems	<ul style="list-style-type: none"> <li>• Reduced gases and particulates</li> </ul>	<ul style="list-style-type: none"> <li>• Reduced symptoms of respiratory disease</li> <li>• Reduced risk of cancer</li> </ul>
	Combustion by-products properly vented to outdoors		
Improved Ventilation	Increased air flow within dwelling	<ul style="list-style-type: none"> <li>• Reduced gases and particulates</li> <li>• Reduced dampness</li> <li>• Reduced mold</li> </ul>	<ul style="list-style-type: none"> <li>• Reduced symptoms of respiratory disease</li> <li>• Reduced risk of cancer</li> <li>• Reduced symptoms of cardiovascular disease</li> <li>• Reduced arthritis</li> <li>• Reduced depression</li> </ul>

*Adapted from Table 4.1 of the International Energy Agency report: Capturing the Multiple Benefits of Energy Efficiency.*

Source: HomeRx: Health Benefits of Home Performance

# Housing Instability

## Forms of Housing Instability



## Are Associated With...

### Health Risks for Children

- General Poor Health
- Asthma
- Low Weight
- Developmental Delays
- Increased Lifetime Risk of Depression

### Health Risks for Adults

- Reduced Access to Care
- Postponing Needed Health Care
- Postponing Needed Medications
- Mental Distress
- Difficulty Sleeping
- Incidents of Depression

Source: Enterprise Community Partners, Inc.



# Housing Instability

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- Housing instability is associated with negative educational and behavioral outcomes for young people. Examples:
  - Residential mobility = higher levels of behavioral and emotional problems; increased teenage pregnancy rates, drug use, depression; and increased likelihood to use emergency departments for routine care [1]
  - Children who have moved more than three times were 2.5 times more likely to commit a property crime. More than four moves accelerated time to marijuana-related problems by 49 percent. [2]





# Housing Instability

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Subsidized housing “protects” children from harmful health risks. Measured against comparable families, children in subsidized housing have:

**+35%**

**Greater chance of being classified as a ‘well’ child**

**-28%**

**Lower risk of being seriously underweight**

**-19%**

**Lower risk of being food insecure**

Source: Children's HealthWatch

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Source: Enterprise Community Partners, Inc.



# Housing Instability

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- Children who experience homelessness often suffer lasting health impacts.
- Study that examined pre-natal, infant, and toddler homelessness found:

Population	Likelihood of hospitalization as a child
Homeless before birth	+20 percent
Homeless after birth (infant/toddler)	+22 percent
Homeless before + after birth	+41 percent

Source: Sandel et al. 2015



# Housing Instability

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- Housing the homeless improves health care service delivery.
- Homeless persons are high utilizers of emergency departments and other public services. Eighty percent have three or more chronic health conditions and the majority have behavioral health needs. [1]
- Research shows adding housing to a package of homeless services drastically improves outcomes[2]:

Indicator	Services Alone	Services + Permanent Housing
Emergency room visits	-12%	-34%
Emergency room charges	-2%	-32%
In-patient hospital days	+26%	-27%
In-patient hospital charges	+49%	-27%

Source: [1] Arabo et al., n.d. [2] Summary Report of Evaluation Findings: A Dollars and Sense Strategy to Reducing Frequent Use of Hospital Services about the Frequent Users of Health Services Initiative



# Affordable, quality housing reduces health care costs

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- Alaska Medicaid spends \$10,000 per enrollee on health care, twice the national average
- ~50% of those costs covered by the State's general fund
- How to reduce/control Medicaid costs in Alaska?
- 2016 national study tracked Medicaid-covered residents' health for one year after they moved into one of 145 affordable housing properties across three housing types:
  - family housing
  - permanent supportive housing
  - senior housing

Source: *State of Alaska, Kaiser Family Foundation, Wright et al 2016*

# Affordable, quality housing reduces health care costs

**1** Costs to health care systems were lower after people moved into affordable housing.

- Total Medicaid expenditures declined by 12 percent.
- Declines in expenditures were seen for all housing types.
- IMPLICATION: *Access to affordable housing will likely drive down costs to the health care system.*

Overall	FAM	PSH	SPD
-12%	-8%	-14%	-16%

# Affordable, quality housing reduces health care costs

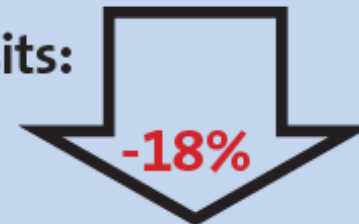
## 2 Primary care visits went up after move-in; emergency department visits went down.

- Outpatient primary care utilization increased 20 percent in the year after moving in, while ED use fell by 18 percent.
- Similar trends were observed for each housing type.
- IMPLICATION: *Affordable housing helps meet major health reform utilization metrics.*

Primary Care:



ED Visits:



# Affordable, quality housing reduces health care costs

## 3 Residents reported that access to care and quality of care improved after moving into housing.

- Many residents reported that health care access and quality were better after move-in than before; very few people reported it was worse.
- IMPLICATION: *Expenditure and utilization differences did not come at the expense of access or quality.*

	Better	Worse		Better	Worse
<b>ACCESS</b> to health care after moving to affordable housing	40%	4%	<b>QUALITY</b> of health care after moving to affordable housing	38%	7%

# Affordable, quality housing reduces health care costs

- Seniors

- Each year, one in three seniors experiences a fall [1]
- Experiencing a fall makes a long-term nursing home stay three times more likely [2]
- Average annual cost of nursing home care in Alaska: **\$297,000/person** [3]
- Housing with safety and accessibility features decreases the chance of a fall by 20-50% [4]





# Affordable, quality housing reduces health care costs

- Seniors

- Placement in quality, affordable housing that is infused with supportive services should be a primary platform for long-term senior care.
- Average nursing home cost in Alaska is \$297,000 annually, compared to \$60,000 per year for a full-time home health aide or in-home chore service. [1]



# Conclusions

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- The physical condition of our homes greatly impacts our health and wellbeing
- Housing instability harms health
- Affordable, quality housing reduces health care costs



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