## **Healthy Homes**

Community Health Advisory Committee September 3, 2014



# Overview

- The connection between housing and health
  - Terms
  - Data
  - National and State trends and programs
- Saint Paul Ramsey County Public Health
  - Where we've been
  - Where we are going
- Discussion

# "Healthy Home"

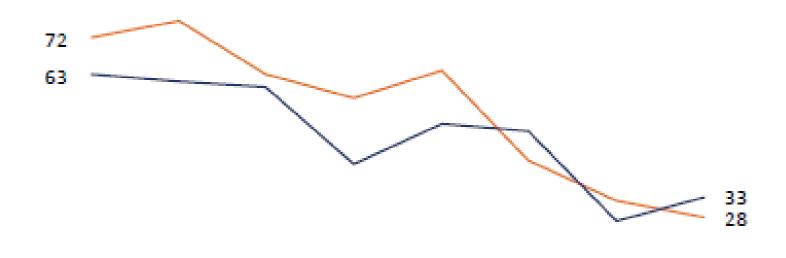
- A healthy home is a home designed, constructed and maintained in a manner that supports the health of residents
  - It is:
    - Dry
    - Clean
    - Well ventilated
    - Pest-fee
    - Contaminant free
    - Safe
    - Maintained

# The Healthy Homes Picture for Ramsey County

- Lead
- Asthma
- Radon
- Chemical poisonings
- Unintentional falls
- Carbon monoxide poisonings

### Number of children with elevated BLLs reported to Saint Paul-Ramsey County Public Health

— 10-14 μg/dL ——≥15 μg/dL



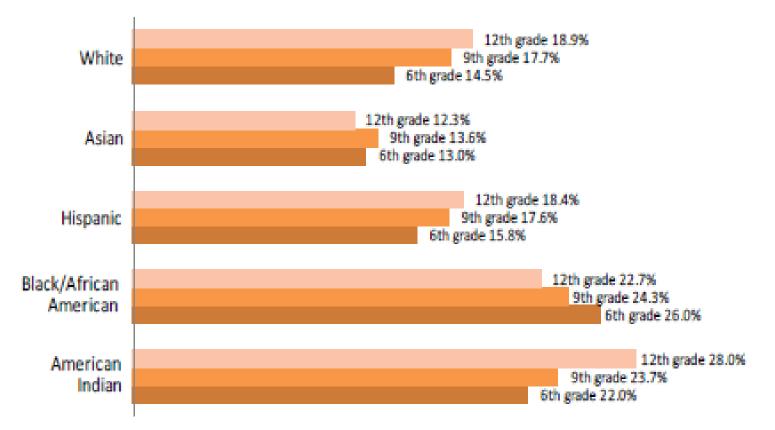
#### 2003 2004 2005 2006 2007 2008 2009 2010

Source: Saint Paul-Ramsey County Public Health, Environmental Health and Family Health Sections.

### Percentage of adults with asthma, Ramsey County

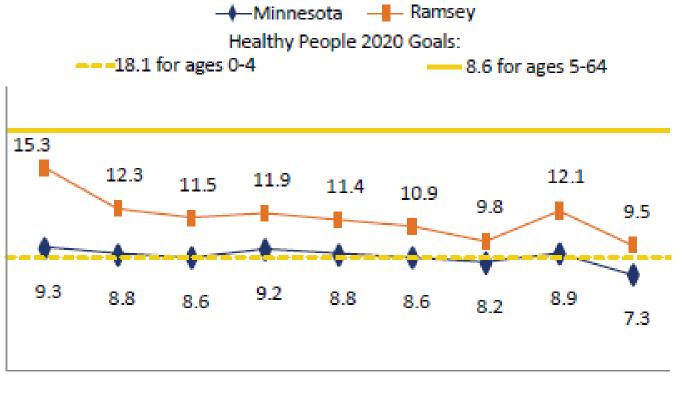


#### Percentage of youth with asthma, Ramsey County, 2010



Source: Minnesota Department of Health, Center for Health Statistics. (2010). Minnesota Student Survey. Ramsey County [Data set]

#### Asthma hospitalization rates (per 10,000 population)

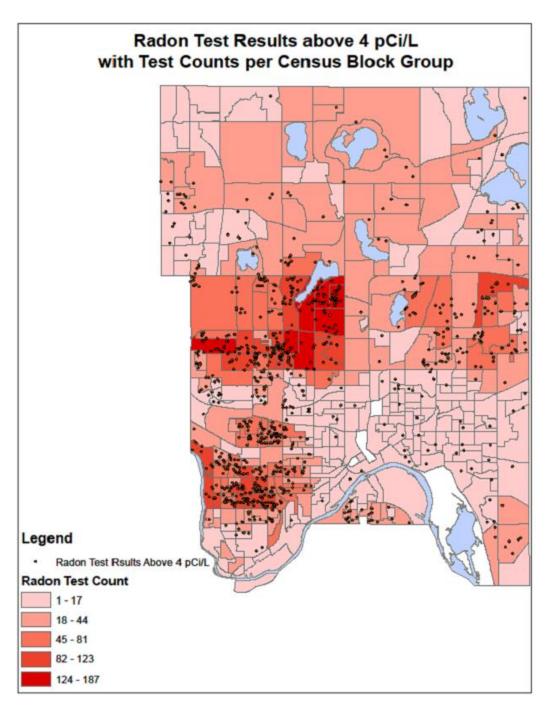


#### 2000 2001 2002 2003 2004 2005 2006 2007 2008-2010\*

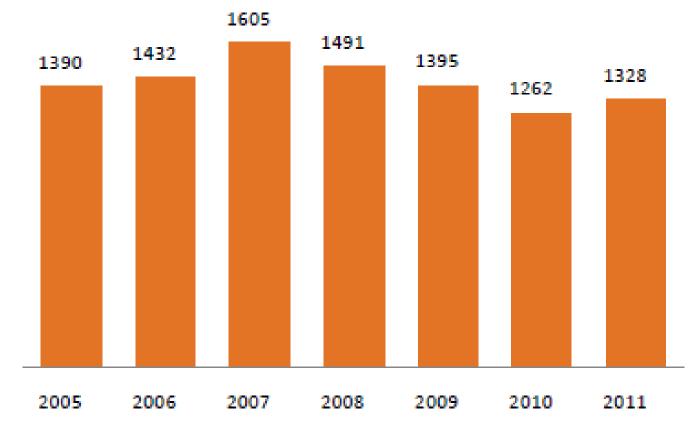
\*Data for 2008-2010 only available as aggregate 3 years.

Source: Minnesota Department of Health. (2008-2010). Minnesota Public Health Data Access.

Radon Testing by Census Block Group in Ramsey County

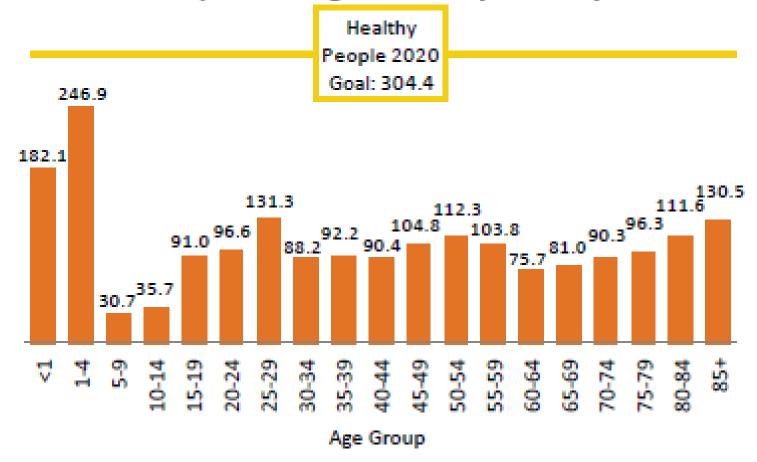


### Number of household chemical calls to Poison Control, Ramsey County

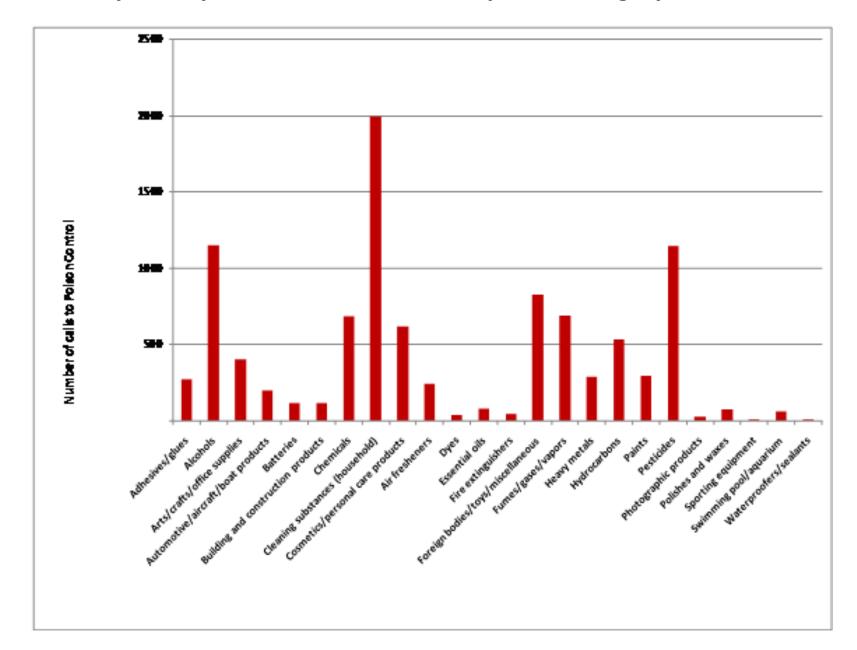


Source: Hennepin County Medical Center. (2012). Hennepin Regional Poison Center/Minnesota Poison Control System. Retrieved from: http://www.hcmc.org/a\_z/hpoisoncontrol.htm

## Rate (per 100,000 population) of non-fatal unintentional poisonings, Ramsey County, 2006-2011

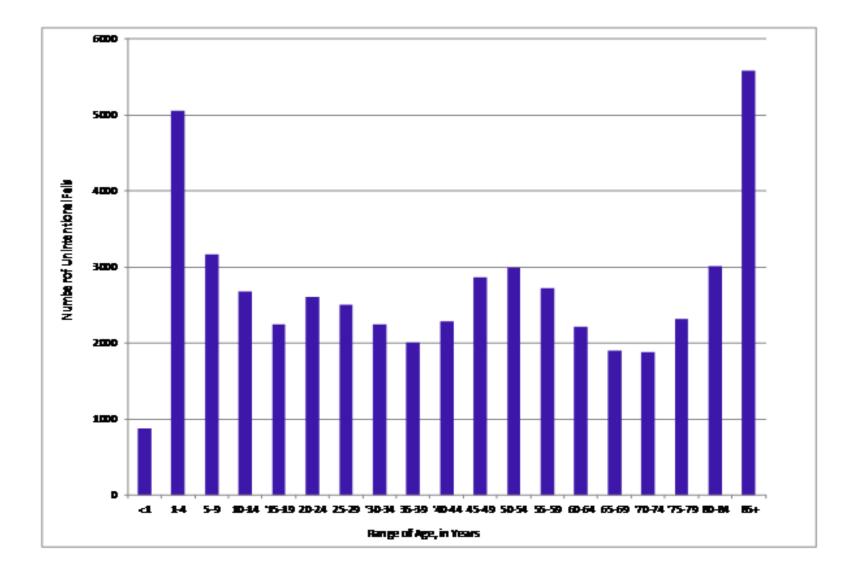


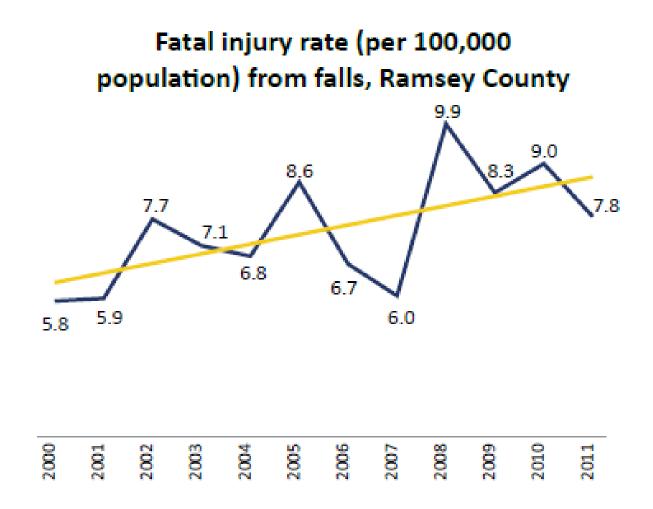
Source: Minnesota Department of Health, Minnesota Injury Data Access System. (2012). Analysis of Hospital Discharge Data. Retrieved from: http://www.health.state.mn.us/injury/midas



#### Ramsey County Calls to Poison Control by HHW Category, 2005–2011

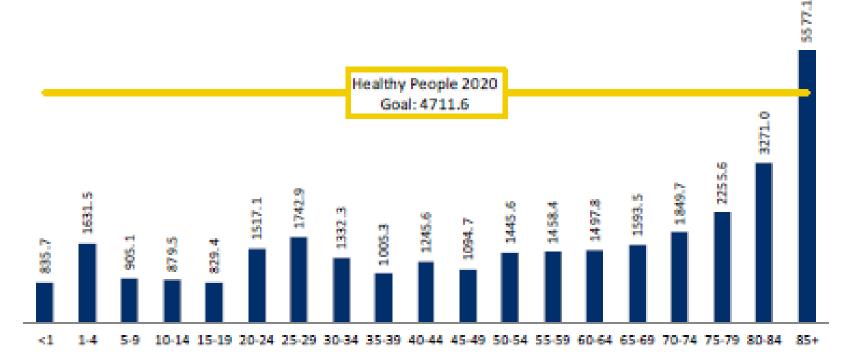
## Unintentional Falls, 2007—2011, by age





Source: Minnesota Department of Health, Minnesota Injury Data Access System. (2012). Analysis of Hospital Discharge Data. Retrieved from: http://www.health.state.mn.us/injury/midas

## Rate (age-adjusted per 100,000 population) of fall injuries treated in an emergency department, Ramsey County, 2011

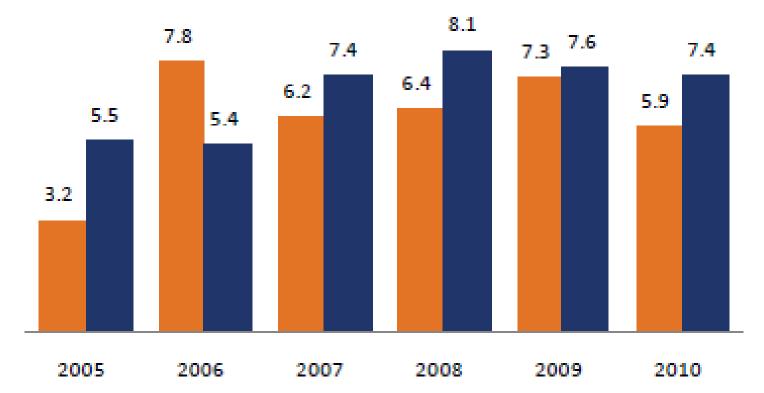


Source: Minnesota Department of Health, Minnesota Injury Data Access System. (2012). Analysis of Hospital Discharge Data. Retrieved from: http://www.health.state.mn.us/injury/midas

## Rate (per 100,000 population) of CO poisonings

Ramsey County

Minnesota



Source: Minnesota Department of Health. (2012). Minnesota Public Health Data Access: Carbon Monoxide Poisoning. Retrieved from: https://apps.health.state.mn.us/mndata/co

# National and State Trends

- From: Individual health related conditions
- To: Whole house approach
- Federal grants from CDC, EPA and HUD to support and develop a healthy homes approach





Centers for Disease Control and Prevention CDC 24/7: Saving Lives, Protecting People™



## Ramsey County

1992: 422 active lead poisoning cases 2013: 33 active lead poisoning cases

### – HUD grant #1

- Exhaustive research on only 62 homes
- Identified deteriorated painted window components as being the most dangerous lead risk to children.

### – HUD Grant #2

- Demonstrate our window replacement strategy on 231 projects
- Focusing on high risk neighborhoods

### – HUD Grant #3

- Implement a "Housing-based" primary prevention program.
- Completed lead hazard control on over 1000 homes occupied by young children at risk to lead poisoning



# Program Transformation (2009)

- Significant program modifications include:
  - Evaluation of program procedures and revision
  - Partnership with Child and Teen Check-up program
  - Strengthening partnership with Environmental Health Lead Hazard team
  - Implementing an Electronic Medical Record system
  - Model continues

## Asthma

- Previous funding primarily for treatment of symptoms and health care
- Nationally, agencies were seeing the success of lead hazard reduction using housing agencies
- Following the lead example, grant funds were redirected from health agencies to housing agencies

## Asthma Grant Funding (2 rounds)

 Define the environmental triggers of asthma which are found in the home

• Determine a strategy that can minimize these environmental triggers

## **Intervention Product List**

- Vacuum cleaner with HEPA filter
- Air cleaner for child's bedroom
- Bed and pillow encasements
- Integrated pest management kit
- Quality furnace filter
- Smoke detector, CO detector
- Household fire extinguisher



## Results

- Over 500 homes (700+ children) assessed and completed in Ramsey and Hennepin Counties
- Major statistical improvement in quality of life of affected children
  - Large drop in school and work days missed
  - Large drop in emergency room visits
  - Families, self report, health is much improved

### Elevated Blood Lead Levels and Home Values

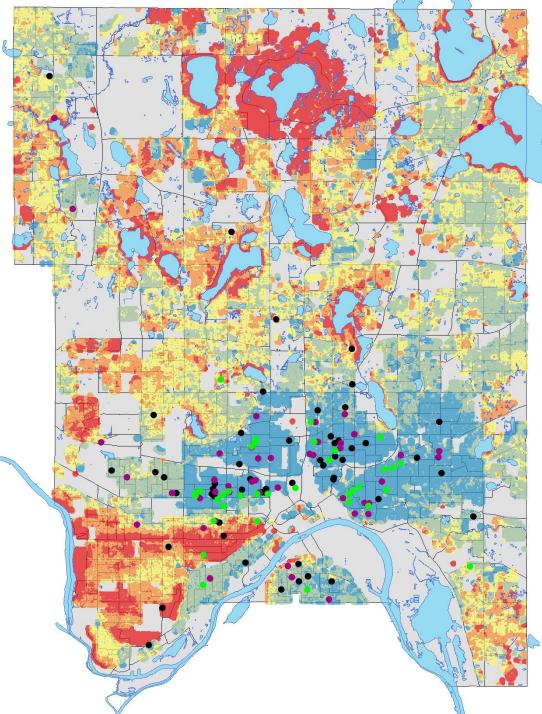
#### Legend

- 2014 Interventions
- 2013 Interventions
- 2012 Interventions

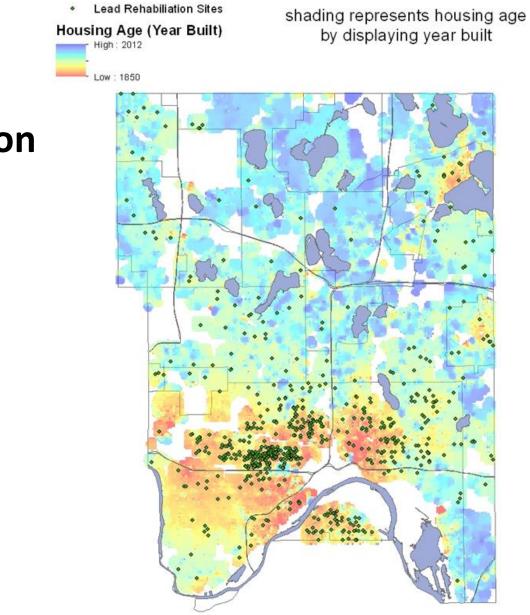
Lakes and Rivers

#### **Estimated Market Value**

\$100.00 - \$119,460.76
\$119,460.77 - \$167,205.07
\$167,205.08 - \$214,949.38
\$214,949.39 - \$310,437.99
\$310,438.00 - \$3,043,799.50



#### Legend



## Lead Rehabilitation Sites

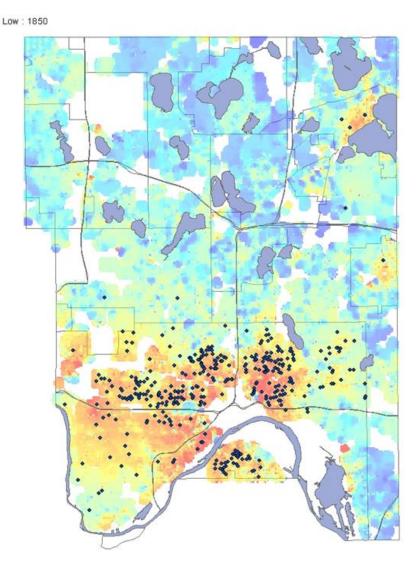
#### Legend

Window Projects

#### Housing Age (Year Built) High: 2012

shading represents housing age by displaying year built

# Window Replacement Projects



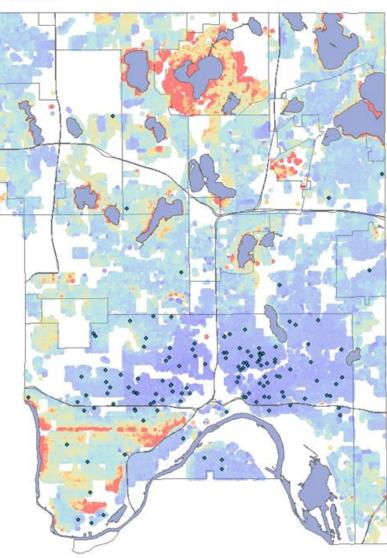
#### Legend

Healthy Homes Interventions

#### Estimated Market Value

Highest (above \$3,000,000) Average (\$190,684) Lowest (below \$1,000) shading represents residential property values by displaying the total estimated market value.

# Healthy Homes Interventions



# Minnesota

- Alliance for Healthy Homes and Communities
- Healthy Homes Strategic Plan, 2012
  - Mission: "Promote, support and provide healthy homes for all Minnesotans"
  - Goals and strategies
  - 2013 Legislature funded future grants

