HEALTHY HOUSING

Healthy Homes and Communities  June 28, 2012
“The connection between health and the dwelling of the population is one of the most important that exists.”

Our vision: Effective positive change at all levels
- Adopt rational investment system – Health First
- Reduce societal costs
- Break down silos
- Initiate effective intervention through partnerships
- Strengthen local policies
- Educate to increase awareness
- Create opportunity for increased relevance
HEALTHY HOMES + HEALTHY COMMUNITIES

- Our Initiatives
  - Integrative design incorporates Health First
  - Green/health impact research
  - Homebuyer/tenant curriculum with healthy housing
  - Home safety curriculum for immigrant healthy housing
  - Community public health forums with MDH
  - Public health partnership for in-home health assessments
  - Targeted resources through regional referral system
Green Communities Framework

- Integrated design process
- Location and Neighborhood Characteristics
- Site
- Water Conservation
- Energy Conservation
- Materials and Resources
- Healthy Living Environment
- Operations and Management
SWMHP Case Studies

- Viking Terrace, Worthington, MN
  - 60 units substantial rehabilitation
  - General Occupancy – large family tenant base

- Cherry Ridge Apartments, Mankato, MN
  - 83 units substantial rehabilitation
  - General Occupancy – large family tenant base

- Orness Plaza, Mankato, MN
  - 101 public housing substantial rehabilitation
  - Senior & handicapped tenant base
Viking Terrace
Apartments
Before & After
Viking Terrace
Apartments
Before & After
Project Research Components

- Green Communities Pilot Projects
- Planning Charrette – integrated design – energy/water conservation & health
- Post Energy & Water Use Comparative Analysis
- HVAC/Ventilation Commissioning
- Health Impact Study
- Tenant Education
Cherry Ridge Apartments
Before & After
Cherry Ridge Apartments
Before & After
Green Features

- Roof truss system with standing seam steel roof & enhanced attic insulation
- Geo-thermal heating and cooling system
- Energy star rated appliances
- Water conserving appliances and fittings
- Energy efficient lighting & windows, occupancy sensors, & enhanced wall insulation
- Recycled materials
- Recycled content flooring
Health First Elements

- Ventilation
- Low-VOC adhesives, paints & coatings
- Testing & mitigation of contaminants, e.g. Radon
- Pest management
- Smoke-free requirements
- Energy star continuous exhaust ventilation
- Surface water drainage control
- Outdoor spaces & pedestrian connections
- Education
Viking Terrace Health Impacts

General health reported as very good or excellent increased from:

- **Adults**: 33% to 62%
- **Children**: 53% to 65%

Specific medical conditions decreased:

(Adults & Children)

- Chronic bronchitis: 10% - 0%
- Hay fever: 12% - 4%
- Sinusitis: 12% - 2%
- Asthma: 12% - 4%
- Hypertension: 10% - 4%

- Respiratory allergies: 15% - 4%
- Ear infections: 15% - 4%
- Eczema or other skin allergy: 23% - 0%
- No change in asthma
Orness Plaza
Before & After
The Successes

- Preservation of key community resources.
- Integration of health and performance modifications through planning, implementation and post data collection.
- Integration of community space outdoors.
- National recognition for the green and healthy features.
Lessons Learned

- Take nothing for granted
- Involve existing tenants early and often
- Robust planning including GC & primary subs critical
- Hiring commissioning has been money well spent
- Providing and maintaining tenant education is challenging
- Do not forget property management education