



Best Practices in Healthy Homes and Rural Rehab

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Prepared for the NeighborWorks America Rural Task Force

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Thank you to our Task Force leaders



Recognizing the importance of rehab work for housing preservation, and the difficulty of running a sustainable rehab line of business, in 2015 the Rural Initiative prioritized an inquiry into the rural rehab line of business. A cross section of experts were gathered from the NeighborWorks network to form a year-long Rural Rehab Task Force to provide recommendations on how NeighborWorks can better support rehab in training, technical assistance, and resource allocation, and to share best practices by producing model business plans demonstrating different ways to structure sustainable rehab programs.

The guidebook that follows is one in a series of three, and reflects the invaluable knowledge and skills rehab experts and practitioners of the Task Force generously contributed over the year. The NeighborWorks Rural Initiative would like to acknowledge the Wells Fargo Housing Foundation for funding to support the Task Force, and the following participants for their leadership and commitment to strengthening the rural rehab line of business, and improving the affordability of housing preservation:

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Southwest Minnesota Housing Partnership (SWMHP)

Slayton, Minnesota

For an organization serving thirty counties in rural Minnesota, the challenges of providing healthy and green housing are influenced as much by economies of scale as by occupant need. At the Southwest Minnesota Housing Partnership (SWMHP) a NeighborWorks® Green Organization <http://www.neighborworks.org/Community/Green/Program-Overview> working to implement green and healthy principles over all lines of business, the big jobs are sometimes the easy ones. The occupant needs in multifamily developments and single-family homes warrant equal attention, and SWMHP has the technical skills and knowledge to carry out the work on both levels. But in the reality of resource distribution, the allocation becomes less equitable to the single-family occupant. A \$400,000 developer fee may pave way to a distant multifamily project, while a single-family Healthy Home assessment may bring in only \$325, making it more difficult to cover the cost of these individual assessments.

Here are some notes from a conversation with Lisa Graphenteen, Chief Operating Officer at the Southwest Minnesota Housing Partnership <http://www.swmhp.org>, a “change-agent: developing, financing or rehabilitating nearly 7200 housing units.”

What health and safety issues are common to your occupants?

Respiratory issues, especially asthma. Typical mold & moisture issues, bedbugs, radon (MN has high levels of radon, the second leading cause of lung cancer) which could be a major health issue on the horizon.

What did you implement? Describe any programs

SWMHP works in 30 counties, and is practicing two distinct types of Healthy Housing programs. There is a stark contrast between applying green and healthy housing principles to larger real estate development and small owner occupied rehab. On larger developments, it is easier to designate and follow a prescribed program. For instance, on a larger development or rehab, the agency can designate Green Communities Criteria <http://mngreencommunities.org/> <http://www.enterprisecommunity.com/solutions-and-innovation/enterprise-green-communities/criteria-and-certification> for the entire project. They have Viking Terrace-type project (see descriptions, below) down as a replicable model, and know what systems to implement to recreate the same impactful results.

In multifamily development, locations at a great distance can still be feasible, as developer fees will make the work easier and profitable, while the long-standing rural issues of distance and mobilization costs are magnified when applying large-scale interventions to scattered site single-family dwellings & occupants.

Multi-family development and rehab activity.

The acquisition & rehab of the 60-unit occupied Viking Terrace was the “ah-ha” moment that pushed us forward. These tenants had serious respiratory health issues. The project consisted of general renovation and introduction of measured, adequate ventilation. Occupant respiratory issues declined after rehab. This was the first time we really got to tell our story and assess the positive impact we could have on occupant health.

The National Center for Healthy Housing (NCHH) <http://www.nchh.org/>

and the University of Minnesota <http://www.mnshi.umn.edu/projects/viking.html>

handled the research component, including pre & post testing of tenants and the health impacts of interventions that were employed. Many other projects have been done since, which integrate healthy housing and green. We did a second project with NCHH called Orness Plaza, a senior public housing development

Healthy Homes & Healthy Communities (HHHC)—A program of Healthy Home assessments throughout seven counties that “aims to create healthier homes and neighborhoods that result in healthier people. In partnership with local health boards, social service providers and individual property owners, the initiative integrates healthy housing practices and activities with existing programs to create a platform for addressing social determinants of health in southern Minnesota.” For owner-occupied dwellings this program combines resident education, assessment and the services of a public health nurse when possible.

SWMHP focuses on a centralized (seven county) geographic coverage for this program. As a rural organization serving a large region, it was important to define a program delivery area that would be cost-effective in light of the limited fees that could be collected for each assessment. While individual organizations would need to establish their own parameters, SWMHP determined a sixty mile radius to be most feasible.

What is the size & population of the area your healthy housing programs serve? For the seven counties in HHHC, the largest community population is 12,000, while in some rural counties population tops out at 5000. There is a large diversity of cultures and languages. One employer reports 50 dialects spoken, thus impacting employment, school districts and public health. Consequently, translation of education & outreach materials is needed.

These populations may be the most vulnerable, in the toughest living conditions. Bed bugs are a big problem—SWMHP looks to educate residents about products and treatments that will work, and provide product vouchers on assessment.

Funding for HHHC Assessments:

Of the seven counties served, one is funded through Ucare (a local health insurance provider) while the other six are funded through the Minnesota Department of Health. LISC helps with expanded supply purchases, landlord/tenant education.

What is your typical housing stock? What are the typical housing issues?

For the HHHC assessments, it's mostly single-family detached and owner occupied. The average age of a home is 55 years, 1–2 stories, and 1000-2000 square feet, stick frame, clapboard siding, and some manufactured homes.

Moisture & Mold—dehumidifiers are provided to counteract the symptoms of excess moisture. Radon and LBP are common, attributable to location and age of housing stock, so testing is conducted. SWMHP also addresses inadequate ventilation when possible, and installs lots of smoke and CO detectors. Pest infestation is addressed with pest management education.

What have been the results?

Viking Terrace: NCHH was on board to measure the results of health impacts, and this was followed by a write-up by the Robert Wood Johnson Foundation http://www.swmhp.org/content/green/Viking_Terrace.pdf

NCHH has a full report documenting the success at this location.

<http://www.nchh.org/LinkClick.aspx?fileticket=fMvyBzNTHhc%3d&tabid=363>

Health Assessments: SWMHP has completed 24 of 200 health assessments under the Healthy Homes & Healthy Communities program.

What was the catalyst for your healthy homes program? They were working on Viking Terrace, where the tenants exhibited documented health issues. The timing was good—it was the right moment for the movement. The Enterprise Green Criteria (<http://www.enterprisecommunity.com/solutions-and-innovation/enterprise-green-communities/criteria-and-certification>) was becoming prominent, and there was interest on statewide level. “Minnesota is great.” SWMHP had previously completed the assessment of one single-family home with the University of Minnesota, and wanted to see what further impact they could have.

On the Health Assessment side, the relationships with local public health agencies began when a statewide lead hazard reduction project was implemented. SWMHP identified a disconnect between public health, who had interactions with the families of young children with elevated blood lead levels, and SWMHP, who had access to rehab resources. This began the relationship which evolved into discussions on healthy housing assessments.

SWMHP has a strong advocate/champion in Rick Goodemann, the founder and CEO since 1992. Lisa reports that Rick has always been innovative, trying new things—when presented with new ideas, he’ll often say, “we’d love to try it.” The combination of board support for programs and their trust in Rick has contributed to SWMHP’s success.

If you had it to do again, what would you do differently?

Viking Terrace has great outdoor space for their community, but its use is limited to summer months. We actively engage with residents on a regular basis (resident education, convening) and have a lack of indoor community space. So including community space would be helpful.

What’s next with current resources?

For the HHHC program, they must complete the remaining assessments, as the goal of 200 must be completed within a three-year period.

What else would you do if you had additional resources?

1. Sustainability of single-family home assessments:

SWMHP wants to find a way to make single-family health assessments and interventions sustainable by continuing to offer assessments beyond the current program, and integrating them into a line of business. Lisa wonders if households would pay a fee for assessments. Can they get Medicare and insurance providers to pay? SWMHP would like to reach out to medical facilities and landlords as potential partners.

2. Add the Rehab component:

The HHHC program is now 2 step process, where SWMHP can provide:

- a. Assessment of issues
- b. Supplies (voucher or supplies) based on assessment.

Lisa and SWMHP feel it is imperative that the program expand to include:

- c. Rehab resources: Currently assessments include a referral to rehab, but there are no regional sources of funding.

The rehab component will complete the cycle begun at assessment. “This (addressing through rehab the cause of housing-related health issues) complements our other work... A dehumidifier may help with moisture issues in a home but if the roof is leaking it (the dehumidifier) may not be enough and contribute to mold eventually. Also if you put smoke detectors in you may help save that family’s life in the case of a fire, but if they need major electrical improvements are you doing all you can? Or just hoping that smoke detector works 3 years down the road when a

fire starts due to faulty electrical?”

“Rehab funding applications have been submitted, so we hope to know by Oct/Nov regarding those.”

3. Develop a clearer menu of “fix” options

A healthy housing effort there can sometimes have a “disconnect” from the rehab programs if the initial focus is solely on the assessment and purchase of materials, which is minimal. We had to make a conscious effort for our (rehab) loan officer and assessment inspector to discuss and have a base knowledge of how to bridge that gap, how inspectors can help homeowners address larger scale rehab needs. I think for the inspector it also provides a sense of accomplishment knowing we are looking at the bigger picture and doing all we can, verses a small fix.

4. Measure the Success of Interventions

Measuring the success of larger projects is more straightforward than with individual interventions. Partnerships with groups (as the National Center for Healthy Housing) willing to study the results are more productive when quantifying the results at a multifamily project, as it is less burdensome to gather pre- & post-intervention data.

Lisa wonders how SWMHP can duplicate this level of interest in single family owner-occupied intervention, and how to measure the impact for single-family homes. As owner occupied rehab bears the added burdens of mobilization, distance and lack of funding for post-assessment rehabilitation, measuring the impact of single-family interventions is less precise.

They feel a need to show long-term proof that assessments and interventions work in order to attract future funding.

5. Develop an evaluation tool

SWMHP sees value in an evaluation tool to help quantify the results of owner-occupied single family homes, including both pre- and post-intervention testing. Health impacts of interventions are needed for insurance providers, to show impacts, document

savings and reduced health care costs. “We wonder if NeighborWorks could develop a Success Measures tool for this.”

6. Address Employee Health & Wellness

Tying the green organization criteria in at the Human Resources level seems a natural next step in operations for SWMHP. Supporting staff health and wellness, possibly through their health insurance is one more opportunity for synergy between organizational and employee health/wellness.

7. Expand Educational efforts

Especially among diverse households.

What specific resources would you need?

FINANCIAL: More rehab resources verses more staff.

Our goal is to address the full health and safety needs of a dwelling.

TECHNICAL ASSISTANCE: help from NeighborWorks in two forms:

1. Help with telling our story. We have not always been good at this part of selling what we do.
2. Evaluation piece of our work: Possible development of a Success Measures evaluation tool

TRAINING: Training for all Project Management staff in Healthy Housing

CERTIFICATIONS: Healthy Homes Specialist (HHS) certification <http://www.neha.org/credential/HHSexam.html> for all Project Management staff.

What Green and Healthy courses or training has the staff taken, including NW courses? What has been most useful?

Two staff completed the Essentials for Healthy Housing Practitioners course through the local Sustainable Resource Center (Author’s note: This course is also offered through NeighborWorks®

Training <http://www.neighborworks.org/Training-Services/Training-Professional-Development>) and completed the Healthy Homes Specialist credential <http://www.neha.org/credential/HHSexam.html>.

Other training includes HERS <http://www.resnet.us/professional/rater/what-is-a-hers> codes, asbestos, lead and radon. It is reported that the construction staff is least likely to use the agency's NTI training slots.

What connections do you have with local service agencies or partners?

- a. Health departments: SWMHP currently interfaces with two health departments covering a combined seven counties for assessments (Nobles County and Southwest Health & Human Services (6 counties), as well as the Minnesota Department of Health and HUD.
- b. Medical facilities: Ucare, an independent, nonprofit health plan providing health coverage and services in Minnesota and western Wisconsin, and BlueCross Blue Shield of Minnesota

- c. We want to continue building on the housing and health industry connections. Our groups may not intersect enough but we have some common interests.
- d. ESL classes are a great connection, especially when conducting home maintenance courses

What advice do you have for other rural organizations? Is it replicable?

The work we do has so many benefits. Don't go in and give a roof and windows while ignoring radon, LBP, or other major health concerns. Take a holistic approach. In the end, saving energy costs can also make a home more efficient and cost-saving. The health side has major health care cost savings, implications for the health and well-being of the family, and also public health. Make every home healthy for today's families and future occupants. Our housing is in short supply, so we work hard to preserve our housing. Our communities are great places.

North East Community Action Corporation (NECAC)

Bowling Green, Missouri

Education is a powerful tool. When it's combined with a patchwork of housing rehab resources, North East Community Action Corporation (NECAC) has made a world of difference to individuals touched by their healthy homes pilot program. Armed with the information and opportunity to help control their own health & well-being, occupants lives have changed for the better. And medical providers, noticing the results in reduced visits and better health, have been willing to contribute financial support to the educational component of healthy housing.

As occupant behavior is only one part of the equation, a bigger question remains - what should we do when the building is sick? Will the medical community treat both the building and the people who live in it? A holistic approach that combines occupant education with building interventions and rehabilitation can more completely address many serious health and safety issues. Carla Potts feels "everyone is watching" as NECAC sets the stage for persuading medical facilities to fund the full healthy homes intervention. She's hopeful this will lead to further funding and expansion of healthy homes work into all 12 of NECAC counties.

Notes from a conversation with Carla Potts, Deputy Director for Housing Development at North East Community Action Corporation (NECAC), Bowling Green, Missouri <http://www.necac.org/Pages/index.aspx>, with Ken Schneider, Weatherization/ Home Rehabilitation Director and Charles Sidwell, Assistant Weatherization/ Home Rehabilitation Director. With a mission of "Empowering People, Changing Lives, and Building Communities," NECAC housing products include new construction of multifamily and single-family, rental management, and weatherization & rehab of single family, multi-family and mobile homes.

What health and safety issues are common to your occupants?

Common health issues are COPD and asthma. There is a need for air conditioning, fresh air and improved ventilation. Safety is often compromised by the presence of housing trip hazards, the lack of smoke and CO detectors. They find many HVAC appliances and water heaters with poor venting and in need of service. The potential for future CO problems is mitigated by the routine installation of replacement furnaces with sealed combustion, virtually eliminating the possibility of CO leaks.

What Healthy Housing programs were implemented?

NECAC conducted a pilot health & safety education program funded through Rural LISC and Wells Fargo http://www.lisc.org/rural_lisc/partners/cdc_in_the_spotlight/necac_receives_wells_fargo_support_for_healthy_homes_program.php. The objective was, "to look at some main issues contributing to COPD along with trip and fall injuries."

The local campus of the Sisters of St. Mary (SSM) Healthcare is involved—allowing NECAC access to discuss the program with caregivers, thus obtaining referrals for patients the healthy homes pilot could best help. Clients age from 20's to 80's, and there are four counties in pilot. Ideally NECAC will expand the program to all twelve counties they serve.

Weatherization and rehab resources are combined where needed and possible. They often "pull money from rehab to fix a roof on a weatherization job where weatherization funds can't cover the costs." Rehab funding comes from a mix of sources, including DOE Missouri for the weatherization audits with limited health and safety repairs, as well as additional funds from the Federal Home Loan Bank

(FHLB), local Housing Trust Fund, preservation and Missouri Housing Development Commission (MHDC).

As NECAC's program sets the stage for housing programs to work with medical facilities, Carla feels more than 21 local agencies watching. She spreads the word through notable speaking engagements, nationally at the

Rural LISC Conference

http://www.lisc.org/rural_lisc/

Affordable Comfort Conference

<http://www.homeperformance.org/> and

NeighborWorks Rural Initiative

<http://www.neighborworks.org/Community/Rural>,

as well as frequent local and state conferences

Typical housing stock is 30–75 years old, with some of the more rural homes at 100–120 yrs. Mobile homes are common in the more urban areas.

Housing is predominately single story, 2–3 bedrooms, with full basement or crawlspace—perhaps only 5% slab.

What have been the results?

Carla cites several examples of improved health, employment, and spirits of the occupants NECAC's interventions have served.

Case 1: The occupant of this single family home was previously unable to walk from one room to the next without oxygen and assistance. She was awaiting a lung transplant. The home had experienced a previous sewer back-up in basement that had not been cleaned, leaving ruined belongings in its wake. The home also hosted multiple cats and basement litter boxes that were not cleaned, spilling cat urine & feces throughout. The program removed two- 20 yard dumpsters of debris from her basement. Removed and replaced moldy sheetrock and replaced leaky back door, all while working around the occupant's strong preference for pets. This was a learning experience for the staff. The occupant's health has improved, and she now has only one cat and one dog that she manages well.

Case 2: This resident of a multifamily apartment complex was so stricken by COPD that she had been unable to work for 18 months, incurring multiple emergency room visits. Cleaning and education were key components to her recovery, as she was unaware that second-hand smoke contributed to her condition. She learned to keep her home clean and direct visitors to smoke outdoors, while NECAC added ventilation and sealed air leaks. NECAC performed several follow-up visits, and the resident was ultimately able to return to full-time work.

Case 3: A client in her 80's, living in her double wide trailer after having a stroke, was on the verge of entering a nursing home. Her house had neither a useable shower nor a functional toilet. NECAC built a custom shower for her. After evaluating just how far she could lift her leg, NECAC settled on a 1" curb for walk in shower with seat & grab bars and an adjustable shower head. The program installed an accessible toilet which is taller, longer bowl & has rails. She was able to get rid of the portable toilet she'd been using.

The client's primary care physician remarked to Carla that the client's physical health has improved, and she has overall improved and is very appreciative. The hospitals' director of case management, meanwhile, said it was "outstanding." The client's spirits are vastly improved, and she can remain safely in her home longer.

What was the catalyst for your healthy homes program?

Carla states, "We have done energy efficiency for years. Health is important—homes are making us sick. We need to be attentive to all factors." Missouri is experiencing a statewide focus on health, exhibited by the Missouri Department of Economic Development sponsoring the Healthy Homes class locally.

What else would you do if you had additional resources?

1. Expand the program: We would have the resources to take the program to all 12 counties we serve, meeting with hospitals and accepting referrals. NECAC has more referrals than we can meet with current resources.
2. Perform a full healthy homes intervention on every home: If we had adequate/full funding, we would not need to “cost trade” (continually evaluate cost benefit of interventions), and could perform a full Healthy Homes intervention in every home we visit.

Their Scope of Work for a full Healthy Homes intervention might look like this:

- Through cleaning of the home
 - Upgrade all equipment that posed a hazard: Furnace, ventilation system, full cleaning of all ducts
 - Replacement of carpeting with hardwood flooring
 - Through inspection of all electrical and plumbing systems; repair/replacement/upgrade where needed
 - Review of foundation; repair of any cracks; make sure ground slopes away from foundation
 - Installation of sump pump or repair of sump pump where needed
 - Make sure no moisture is entering the home; repair/replacement of roof
 - Bathroom updates where needed to make accessible
 - Extermination of any pests in the home
3. Tell their story: NECAC now has powerful but anecdotal evidence that healthy homes programs are working. They need guidance to help them translate this success to statistical, scientific data for funders.

What resources would you need?

FINANCIAL: Ideally, there would be \$30–\$35,000 per unit to completely address all Healthy Homes issues in the typical NECAC-area home. NECAC would like to make every home they touch “a full-blown healthy home”. They currently leverage \$5000 to \$6000 per unit, which leaves quite a gap. Carla wonders if Medicaid and local hospitals could provide the needed funding.

TECHNICAL ASSISTANCE: In addition to Carla’s considerable efforts, NECAC still needs help with telling their story. They are trying to evaluate the effectiveness of their programs. NECAC now has powerful but anecdotal evidence that healthy homes programs are working, but they need to link these stories to statistics. They have reached out to universities to conduct a study (one wanted \$75,000). Carla feels if they could present a report to SSM hospital, they could “ask the hospital for the money we need. A report would help with funding,” and illustrate to funders the synergistic effects of funding the housing rehabilitation improvements.

TRAINING: Every year, we’d need new staff on board who would require initial training, as well as the continuing education required to maintain existing certifications.

CERTIFICATIONS: NECAC wants to cross train all housing staff with certifications related to Healthy Homes and weatherization training, so they would not need to “pick & choose” whom to send to a given job.

What Green or Healthy courses & training has the staff taken (include NW courses). What has been most useful?

Presently, NECAC staff certifications include 12 RRP- certified employees <http://www2.epa.gov/lead/renovation-repair-and-painting-program>

2 lead risk assessors, 1 lead abatement supervisor, 2 asbestos supervisors and 2 asbestos inspector/testers.

All weatherization auditors are BPI certified <http://www.bpi.org/professionals.aspx>

and “perform diagnostic testing, blower door, and fan calculations determine fresh air requirements”. They have all taken the Essentials for Healthy Homes Practitioners course through Mercy Hospital Center (Author’s note: This course is also offered through NeighborWorks® Training <http://www.neighborworks.org/Training-Services/Training-Professional-Development>), with six of those attending now certified as Healthy Homes Specialists through the National Environmental Health Association (NEHA) <http://www.neha.org/credential/HHSexam.html>.

“We’ve not taken the trainings through NeighborWorks®; we’ve used our training slots for other programs. Mercy Hospital offers training, and we usually can access what we need somewhere else.”

What connections do you have with local service agencies or partners?

Medical facilities: NECAC works in partnership with the Sisters of St Mary (SSM) Hospital. There are multiple hospitals under SSM. Carla notes that fewer admissions to their ER results in lower fines for hospitals.

They have more than enough referrals, but no long-term funding. “Without funding, we’re dead in the water.”

NECAC is checking in with Medicaid in MO. As they will already pay for assessment and education in some circumstances, will they pay for the hard construction/rehab portion of the work?

What advice do you have for other rural organizations? Is it replicable?

When we finish, we all celebrate what we do! The invitation list includes weatherization funders, case managers, Department of Economic Development (DOED) and the media. This also allows us to show-case our work to federal and state legislators

When looking at a project, look at every aspect. Each house & occupant is separate, individual entity. Be diligent.

Lay out a good game plan. Do your homework; have in place the doctors, certifications, staff, assessment tools. What can you do with the money you have? Can you carry it all the way through?

We are diligent about funding, using resources such as the Federal Home Loan Bank <http://www.fhlb.com/strong-communities-fund/housing-programs/competitive-affordable-housing-program/> and the state.

In everything, do the most you can, so you can know you’ve done everything you can do for that client.

Carla relates a story of hearing her Congressman lament that, “Medicare is draining resources.” Carla brought up the potential of Healthy Homes Interventions, and putting more money into preventative action. Her congressman found it “hard not to like.”

Carla is quick to add, “there may be a trickle-down effect to this investment: NECAC’s expansion would require more staff, and provide stimulus to help local businesses as well.”

It’s hard not to like.

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