

Cracking the Code

A Case Study on the Role of the Community Health Worker (CHW) in Managing Pests for Clients with Asthma

Megan Nieto, CHW



CHW Solutions
Community Health Worker services made easy



Background

- First point of contact: health fair after Spanish Mass
- Multigenerational family
- Homeowner occupied SFD
- 3 children and 1 adult with Asthma
- Multiple hospitalizations including ambulance transports
- Cockroaches

CHW Scope and Organization of Service Delivery

- Health education
- Self-management skills
- Resource connections
- Pathways
 - Education
 - Medication Assessment
 - Medication Assessment Chart
 - Medical Home
 - Social Service Referral

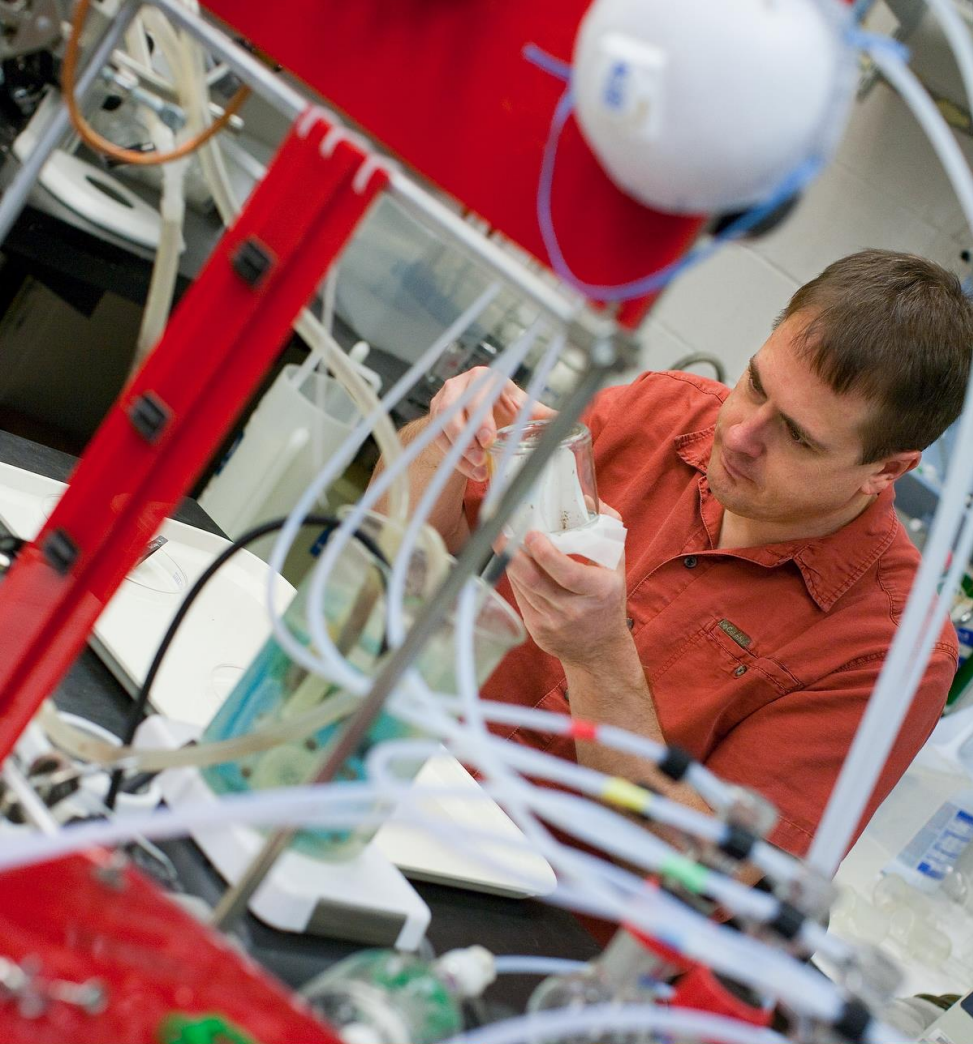


Client's Name _____	Date of Birth _____
Community Care Coordinator _____	Agency _____
Education Pathway	
<div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> <p style="text-align: center;">Initiation</p> <p>Education Pathway started by (check only one):</p> <p><input type="checkbox"/> Program-based curriculum</p> <p><input type="checkbox"/> Client requests assistance</p> <p><input type="checkbox"/> Referral from health care provider</p> <p><input type="checkbox"/> Referral from other provider</p> <p><input type="checkbox"/> Community care coordinator initiated</p> </div> <p style="text-align: center;">↓</p> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> <p>Document education provided (Example: educational content—module, section, etc.)</p> </div> <p style="text-align: center;">↓</p> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> <p>Document educational format used (check only one):</p> </div> <p style="text-align: center;">↓</p> <div style="border: 1px solid black; padding: 5px;"> <p style="text-align: center;">Completion</p> <p>Client reports that he/she understands educational information.</p> </div>	<p>_____</p> <p style="text-align: center;">Start date</p> <p>_____</p> <p>_____</p> <p style="text-align: center;">Education</p> <p>Format:</p> <p><input type="checkbox"/> Handout</p> <p><input type="checkbox"/> Talking points</p> <p><input type="checkbox"/> Video</p> <p><input type="checkbox"/> Other: _____</p>
<p>Record reason if Finished Incomplete: _____</p> <p>_____</p> <p>_____</p> <p>_____</p>	



First In-Home Visit Observations and Discoveries

- Cockroaches visible during the day
- Kitchen seemed to be “ground zero”
- Family had already paid for two pest control treatments
- Family was also using Raid and other products
- Minimal knowledge of environmental triggers
- Uninsured adults
- Food consumed and stored in multiple areas of the home
- Clutter on second floor
- Professional assistance needed for infestation
- Social determinants
 - Food insecurities
 - Minimal access to health care for some family members
 - Lack of transportation to clinic appointments
 - Low income



Without a doubt professional resources were needed but where do we begin?

Dr. Steven Kells
Department of Entomology
University of Minnesota

- Identification of true infestation
- Guidance on treatment
- Ongoing education



URBAN PEST MANAGEMENT

Entomologist Stephen Kells searches for behavioral stimuli in bedbugs and other urban pests to protect people

UNIVERSITY OF MINNESOTA
Driven to Discover™



Initial In-Home Visit with Entomology Team

- Gather background information from family
 - How long have they had the cockroaches
 - How do they think the infestation started
 - What have they done so far to manage cockroaches
- Inspection walk through
- Place sticky traps
 - 35 traps placed during the initial visit
- Set date for first treatment





CHW Role Leading Up to the First Treatment

- Reinforce messaging from Entomology Team
 - Remove all items from kitchen cabinets, cupboards, and storage area
 - Wash everything and place in bags or bins in dining room
 - Vacuum and wash all surfaces
 - Remove all food from upstairs bedrooms and fix leaky faucet
 - Remove all items from underneath upstairs sink
 - Move all furniture away from baseboards and electrical outlets
- Assist family in arranging “relocation” for first treatment day
- Assist family with conversation with PCP to talk about pest infestation and home treatments
- Ongoing conversations with family about diatomaceous earth and other products that the Entomology Team will be using
 - Potential risks
 - Warning signs
 - Action plan and communication with clinical providers

SAFE CLEANING FOR PEOPLE WITH ASTHMA

Cleaning with non-toxic cleaners is a great way to both clean your home and manage asthma. Here are some suggestions for cleaning and decreasing asthma triggers. These recipes are easy, inexpensive, and non-polluting.

MOLD & MILDEW CLEANER

Baking soda, borax, or white vinegar

Any of these can be used to scrub mold-infected areas. Dry areas when finished.

Lemon juice and salt or white vinegar and salt

Mix a paste of lemon juice and salt or white vinegar and salt to scrub mold-infected areas. Dry areas when finished.

TIPS

When showering or bathing, turn on the bathroom fan and allow it to run for 15 minutes or longer. If the bathroom does not have a fan, open a window for 15 minutes or longer. Replace or wash moldy shower curtains. Fix leaky plumbing and remove other unwanted sources of water.

TUB, TOILET & SINK CLEANER

Baking soda
Liquid castile soap

Sprinkle baking soda onto porcelain surfaces. Squeeze a couple of drops of soap onto the surfaces. Scrub the porcelain surfaces with a damp rag. Rinse well to avoid leaving a hazy film.

DRAIN CLEANER

Baking soda
Vinegar
Boiling water

Pour ½ cup of baking soda down the drain first, followed by ½ cup of vinegar. Let the drain bubble for 3 to 5 minutes. Finally, pour about a quart of boiling water down the drain. Repeat the process if the drain is still clogged.

A drain snake or a plunger can be used as a non-chemical method to unclog a drain.

WINDOW & MIRROR CLEANER

Vinegar
Water
Liquid laundry detergent

Pour ¼ cup vinegar into a 16-ounce spray bottle and fill to the top with water. To prevent streaking, add 3 to 4 drops of detergent into the spray bottle. Mix well, spray on the surface, and scrub with a cloth diaper, lint-free rag, or sheet of newspaper.

STAIN REMOVER

Borax
Water

Mix ¼ cup of borax with 2 cups of water. Use a sponge or cloth to dab the solution on the stain. Let it dry. Use another clean cloth moistened with water to scrub the stained area.

DUSTING & POLISHING

Olive oil or almond oil

Use a soft fabric with a few drops of oil for polishing surfaces.

TIPS

Organize clothes and toys in clear plastic trash bags or bins.

Wash stuffed animals in hot water and dry them on a high heat setting. Sealing toys in a plastic bag and placing them in the freezer overnight or for at least 5 hours also kills dust mites.

Wash all bedding in hot water and dry it on a high setting every few weeks.

Vacuum and dust with a damp cloth at least once a week, preferably with a HEPA vacuum.

Take off shoes before entering the house to cut down on contaminants that can be spread through the house.

PEST CONTROL

1 quart water
1 crushed garlic clove
1 minced onion
1 tablespoon ground cayenne pepper
1 tablespoon liquid laundry detergent

Mix the water and food ingredients. Let stand for 1 hour, strain, and add the liquid soap. Pour mixture into spray bottle and spray it around the house for pest control.

TIPS

Avoid saving boxes, paper bags, or newspapers in piles.

Do not leave open food or dirty dishes lying around the kitchen.

Keep counters free of crumbs and spills.

Keep garbage containers closed.

Rinse recyclables before putting them in a bin.

Avoid using pesticides. Use traps or baits instead.

OVEN CLEANER

Baking soda
Water
Scouring pad

Mix 1 cup of baking soda with enough water to make a paste. Apply to interior oven surfaces and let stand for at least 30–45 minutes. Use a scouring pad to scrub soiled areas of the oven and use a harder object, such as a bread knife, for larger food deposits.

Do not use this cleaner on self-cleaning ovens.

FRESH AIR

Throw out harsh chemical cleaners and scented household cleaners.

Use mild, unscented detergents for clothes and avoid scented fabric softeners.

Stop using air fresheners and deodorizers.

Do not smoke cigarettes in the home.



For additional information, call the HEALTH Information Line at 401-222-5960 / RI Relay 711 or visit www.health.ri.gov/asthma

RECIPES PROVIDED BY THE AMERICAN LUNG ASSOCIATION IN WASHINGTON AND THE BOSTON PUBLIC HEALTH COMMISSION

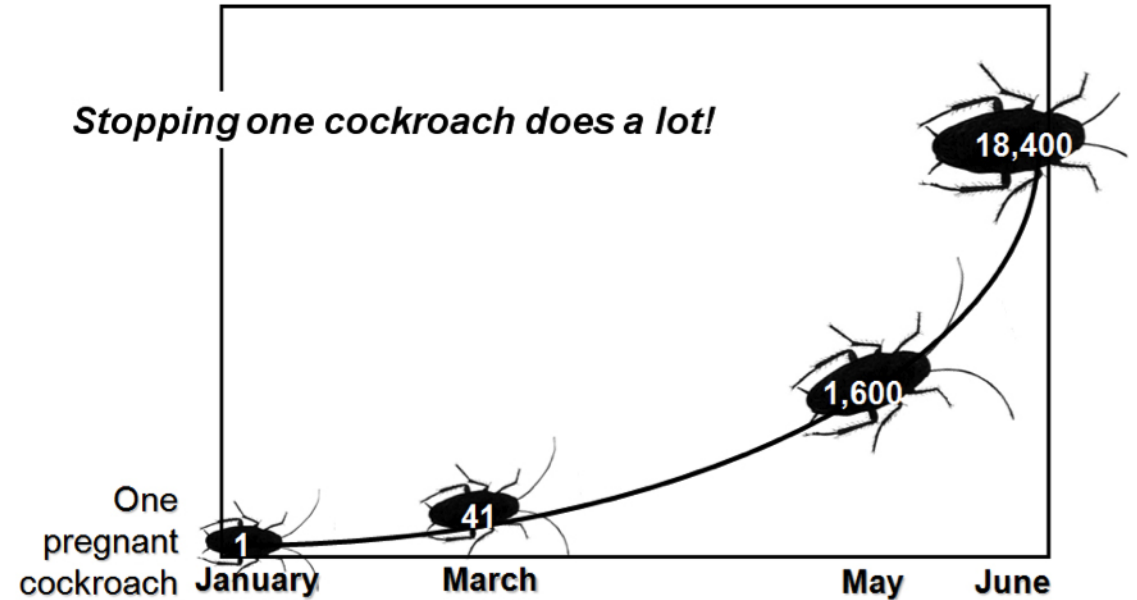




Use of sticky traps to identify how the cockroach population is responding to treatments

Key Messages

- The process takes time
- The importance of consistency
- The family as a team
- Frequent in-home visits and check-ins via phone
- Encourage ongoing communication with clinical team



Infographic from Healthy Homes Coalition of Western Michigan

Intervention Update – Verified 03/07/2018

- Home is still cockroach free!!
- No ER visits since 5/2016 for asthmatic mom (self-report)
- Family members report a better understanding of how to keep pests out of their home
- Parents of asthmatic children report a better understanding of the role environmental triggers play in their children's asthma

Client's Name _____ Date of Birth _____
 Community Care Coordinator _____ Agency _____

Medication Assessment Pathway

Initiation

Client is taking prescribed medication(s).

Start date _____

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Complete the **Medication Assessment Chart** with your client and/or client's caregiver:

1. Include all medications your client says he/she is taking right now (prescription, over the counter, herbal, alternative, etc.)
2. Record what your client says about the medication in his/her own words – even if it is different from the label.

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Send completed **Medication Assessment Chart** to client's primary care provider.

Date information sent _____

Fax
 HUB
 Mail
 Other _____

↓

Completion

Verify with primary care provider that chart was received.

If medication issues are identified by health care provider – initiate Medication Management Pathway.

Verification date _____

Medication concerns:
 Yes No

Record reason if Finished Incomplete: _____

Client's Name _____ Date of Birth _____
 Community Care Coordinator _____ Agency _____

Medical Home Pathway

Initiation

Client needs a medical home (an ongoing source of primary medical care).

Start date _____

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Determine payment source for health care.

Payment Source:

Medicaid
 Medicare
 Private insurance
 Self-pay
 Other: _____

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Find appropriate primary medical provider options for payment source.

Medical provider _____

↓

1. Obtain release of information from client.
2. Assist family in scheduling appointment.
3. Provide education about the importance of keeping the appointment.

Date of initial appointment _____

Education provided
 Yes No

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Completion

Confirm that appointment was kept.

Date of kept appointment _____

Record reason if Finished Incomplete: _____

Client's Name _____ Community Care Coordinator _____

Date of Birth _____ Today's Date _____ Agency _____

STEP 2 - Ask the following questions:

1. Are you having problems getting your medications? Yes No
If yes - why?

2. Do you have problems paying for your medications? Yes No
If yes - what can you afford?

3. Are you having any side effects from your medications? Yes No
If yes - describe:

4. Do you use more than one pharmacy to get your medications? Yes No
If yes - please list all pharmacies:

Notes:

Provider Signature _____ Date _____

34



Client's Name _____ Community Care Coordinator _____

Date of Birth _____ Today's Date _____ Agency _____

Name of Medicine & Dose	Can open? yes/no	What is this medicine for? (client's description)	How many doses each day? (client's response)	Can read the label and knows how to get refills? yes/no	Comments

Over the counter medicines (no prescription needed), herbal or alternative treatments

Name of Medicine or Treatment	Can open? yes / no	What is this medicine or treatment for? (client's description)	How many doses each day? (client's response)	Can read the label and knows how to get refills? yes/no	Comments

Contact Information

Megan Nieto

meganniето@chwsolutions.com



CHW Solutions

Community Health Worker services made easy