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Blueprint

for a Louisiana Demonstration Community Health Worker Program

IMPaCT™

Framework

Patient and CHW (printed with permission)

Preface.

Louisiana has some of the most sobering health outcomes in the United States. Hurricane Katrina, vast income inequality and a history of racial and economic segregation underlie the story of health in this state. It is easy to be cynical about change in the face of such challenges. Yet, a growing workforce of unique individuals may be able to improve health in Louisiana by addressing underlying socioeconomic issues.

Community health workers (CHWs) are individuals who share a common background (race, education, language) with the patients whom they serve. They are also 'natural helpers:' innately empathic and altruistic people. CHWs can perform several functions, providing social support, navigation, coaching, and advocacy to address the real-life issues that make it difficult for patients to stay healthy. While CHWs are increasingly common in healthcare organizations across the United States, many programs fail because of implementation factors: high turnover, inadequate infrastructure, lack of integration with provider teams, disease-specific fragmented models and lack of high-quality evidence.

There is a real opportunity to do better for low-income Louisianans. This Blueprint will guide the design and implementation of an effective, scalable CHW program run by a Louisiana managed care organization (MCO). The Penn Center for Community Health Workers (PCCHW) and the Center for Healthcare Value and Equity (CHVE) at the LSU Health Sciences Center will provide implementation and evaluation support in support of the Louisiana Department of Health's commitment to advancing evidence-based, community-engaged solutions.

What problems are we trying to solve?

Who is at greatest risk for these problems? Why?

What program could address these problems?

What infrastructure is needed?

How will we evaluate the program's success at solving our key problems?

Methodology.

This is a high-level working document that can evolve over time. It will be supplemented by detailed manuals, training, tools and additional scopes of work for aspects of program implementation and evaluation.

This version draws from working group meetings with key stakeholders from CHVE, LDH and a sample managed care organization, as well as LDH's geocoded population health data, and independent research and analysis by PCCHW. It also reflects feedback from two rounds of review.

This document is broken into two sections. First, we review strengths and challenges for existing population health initiatives. Next, we make recommendations about a model CHW program, 'IMPaCT Louisiana', that achieves a common vision. This section is structured in a deliberate, step-wise manner in which we:

1. Describe the vision and overarching institutional structure to support this vision.
2. Define key outcomes that matter to patients and also have financial value for Medicaid.
3. Understand who is at greatest risk based on these outcomes, and why.
4. Plan an evaluation strategy that tracks key outcomes and plugs into a cost savings model for tracking return on investment (ROI).

Current State

AT THE INTERSECTION OF HEALTH, HEALTH CARE, AND POLICY

Health Affairs

DISEASE MANAGEMENT Providers have long experimented with disease management programs that identify patients with chronic conditions and then monitor and educate those patients to better manage their conditions. Despite two decades of efforts, net program benefits—in terms of health or money—have remained elusive. The Congressional Budget Office found insufficient evidence that disease management programs for Medicare can even pay for themselves, concluding that any reduction in the cost of care is tempered by implementation costs.[17] Such programs sometimes improve patients' functional status but do not save money.[18]

Burns, Pauly. 'Accountable Care Organizations May Have Difficulty Avoiding the Failures of Integrated Delivery Networks of the 1990s,' *Health Affairs* 2012

Gap analysis.

LDH requires and pays for Medicaid MCOs to perform community-based case management. Therefore, it is already paying for CHW or CHW-like programs that may or may not be effective. Below are key gaps of typical MCO CHW programs:

1. Team vs. CHW model: Care teams are popular but have four disadvantages: (1) they are resource-intensive with high fixed costs; (2) they can promote fragmentation — i.e. patients need a navigator to navigate their care team!; (3) they create parallel universes of care that are disconnected from a patient's provider practices; (4) they tend to be MD/RN driven and less focused on patients' real-world social needs. We recommend a CHW-first model: the CHW meets the patient, establishes trust and then connects patients to providers or other care team members as needed, trying to find providers within existing practice infrastructure when possible.

2. Integration with providers: many payer CHW programs are only loosely integrated with provider practices. In this way, these programs resembles disease management programs in the 1990s which failed to show benefit, largely because they were not visible to and coordinated with the provider side (Figure). Our model program will embed CHWs in designated practice sites to allow for better communication and buy-in from the clinical teams (See 'Integration').

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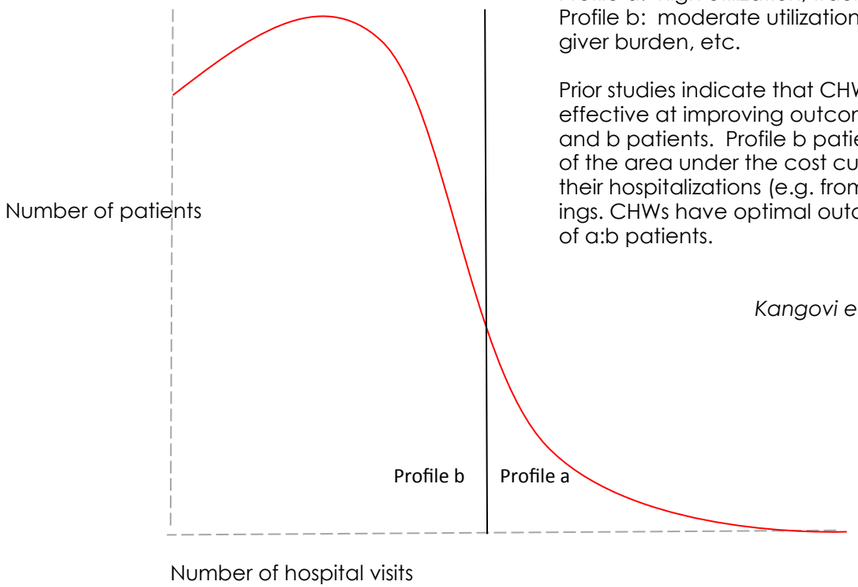

Profile a: high utilization, trauma, mental illness, etc.
Profile b: moderate utilization, working poor, care-giver burden, etc.

Prior studies indicate that CHW programs can be effective at improving outcomes for both profile a and b patients. Profile b patients form a large part of the area under the cost curve, and reducing their hospitalizations (e.g. from 1—>0) can drive savings. CHWs have optimal outcomes with a 1:2 ratio of a:b patients.

Kangovi et al, Health Affairs 2013

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3. Many CHW programs targets patients who frequently visit the hospital or emergency room (e.g. super-utilizers). Our experience suggests that CHWs can achieve cost-savings and less burnout with a broader patient population (Figure).

4. Frequently programs lack defined eligibility criteria which makes it hard to identify and enroll patients in a warm-touch manner (i.e. at the point of care), to track enrollment and uptake, and to evaluate in a rigorous way.

5. Most CHW programs do not use an evidence-based intervention. Workflows and roles are only loosely defined and programs do not have clearly delineate critical operational details such as duration, case-loads, supervision practices, safety protocols etc.

6. Far too many CHW programs rely on pre-post analysis without a control group. This is highly susceptible to regression to the mean and unlikely to be valid.

Model Program

Vision.

Currently, numerous small-scale and marginally effective population health programs are offered through fragmented payer-specific initiatives.

Leadership at LDH and CHVE have a vision of supporting evidence-based, scalable and financially sustainable CHW program that improves life and health for high-risk patients.

LDH is currently accepting proposals from MCOs who want to spearhead a model CHW program, 'IMPaCT Louisiana.' This program will receive support from both PCCHW and CHVE to apply best practices and ensure a robust evaluation. This evidence-based demonstration program will serve as a model for statewide replication.

Outcome	Financial Impact
Hospital admissions and emergency room visits	Medicaid MCOs save the cost of the admission/ER visit
Chronic disease control (HBA1c, BMI, SBP, smoking). Smoking and obesity are lead drivers of death in Louisiana	Some of these metrics are Incentivized measures for payers (about $250K per measure with potential for more in next contract)
Pre-term births and infant mortality. Infant mortality is a lead driver of death in Louisiana	Costs of pre-term birth (NICU stays) are high
Access to primary care	Providers may receive enhanced Transitional Care Management payments for post-hospital primary care visits
Quality as measured by HCAHPS/ CAHPS surveys	Providers may receive enhanced payments for high patient-reported quality
Social determinants of health addressed	N/A

Outcomes.

LDH is interested in supporting an MCO to build an effective, scalable and financially-sustainable CHW program. In order to ensure effectiveness, we must define measurable outcomes. These outcomes must be both important to community members *and* linked to financial savings for the parent MCO in order to create a path to financial sustainability.

Our initial working group listed several potential outcomes across the *Triple Aim* that fit these criteria (Figure).

Region 2

ZIP	% below FPL	% High school or greater	White	Black	Hispanic
70346	26%	75%	32%	67%	2%
70778	15%	84%	77%	18%	4%
70737	11%	90%	74%	26%	5%
70734	11%	95%	77%	20%	12%
70774	10%	84%	99%	0%	4%

Region 7

ZIP	% below FPL	% High school or greater	White	Black	Hispanic
71101	43%	76%	22%	78%	1%
71103	39%	75%	10%	89%	1%
71109	38%	78%	5%	94%	0%
71108	35%	79%	13%	86%	1%
71107	27%	82%	47%	50%	3%

Table below shows basic demographics of highest density ZIP codes. Source: https://factfinder.census.gov/faces/nav/jsf/pages/community_facts.xhtml?src=bkmk

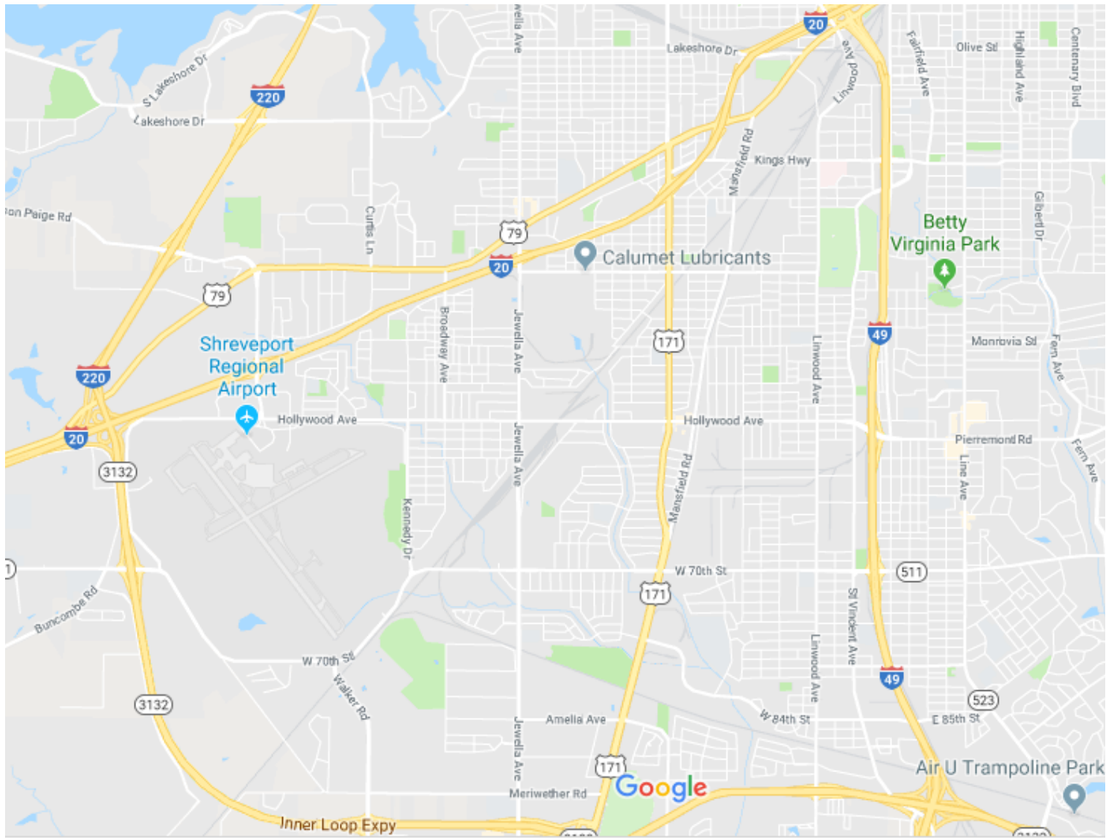
Geography.

The next step is to map a geography where individuals are at high risk for key outcomes. LDH's geocoded data for the years 2012-2016 reveal that Regions 2 and 7 (Ascension Parish and the Shreveport area) have the highest rates of infant mortality and pre-term birth respectively.

- Region 2 had a 12.4% rate of pre-term birth and 11.1 infant deaths per 1,000.
- Region 7 had a 16.2% rate of pre-term birth and 9.6 infant deaths per 1,000.

Just as a comparison: New York City's infant mortality rate is 4.6 per 1,000.

We pulled demographic data for these two regions, sorted them by poverty and truncated the list to the poorest 5 ZIPS in each region (Tables). Shreveport has more residents living below FPL, fewer with a high school education and a higher proportion of minorities. 71107 is the outlier because it is least poor and 50% white.



Shreveport, Louisiana

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Assuming admissions/chronic disease data supports the notion that this region is high-risk, we recommend focusing the CHW program on 4 ZIP codes: 71101, 71103, 71109 and 71108. The racial density would allow for hiring of a CHW workforce that is racially/culturally aligned with the patient population. The region has high poverty and would benefit from a place-based intervention. Finally, it's a tight geographic region (~10mi diameter) which allows for lots of home visits without extensive travel time.

Next steps:

- Confirm hotspot based on strategy, feasibility and admissions/chronic disease data

Shreveport News, 'VA Hospital cohosts homeless outreach event in Shreveport' Jan 31, 2018

Communities.

Once we map hotspot geographies, the next step is understanding those communities. Communities are more than geography. They are histories, stories of real life, assets and challenges.

The leadership of CHVE, LDH and our sample MCO shared some details about Shreveport. It is a conservative, traditional area with a strong Christian influence. It is racially segregated (as we saw from demographic data). Closures of both a large General Motors plant and regional oil companies have left many residents in decline. There is not much to do in the way of healthy fun. Common activities include gambling at one of five area casinos, visiting the racetrack, and eating and smoking pot. The area is home to an air force base. There are high rates of opioid use and syphilis. Culturally, many residents identify as much or more with Texas as with Louisiana (i.e. Dallas Cowboy fans). Most people rely on the bus (mediocre in terms of routes/timing) for transportation.

There are several medical facilities within our hotspot: the Overton Brooks VA Medical Center, Willis Knighton, University, Christus and Brentwood (behavioral health). Notable clinics include University (moving to Ochsner) and David Raines (FQHC).

Criteria	Notes
Medicaid/uninsured	
Resident of 71101, 71103, 71109 and 71108	-
At least 2 admissions in past year	
Admitted to a participating hospital or patient of a participating clinic	Participating clinical sites should be located within hotspot. Each CHW should have only 1-2 sites as their clinical 'home (see Integration)
• Multiple chronic health conditions (≥2 ICD10 of the following: DM, HTN, obesity, tobacco dependence) OR • High-risk pregnancy (prior preterm birth based on ICD10 OR current HTN or gestational HTN based on ICD10)	Data on patients with prior pre-term births could be pulled from an LDH registry that is updated biweekly. This can be used for referrals.

Criteria.

The previous steps inform the final eligibility criteria for the CHW program. Criteria for program inclusion should be simple, extractable in real-time from the electronic medical record (EMR), and identify eligible individuals at the point of care. This allows a warm-touch enrollment, rather than having CHWs chase down target patients through door to door visits or calls.

It is important to remember that eligibility criteria do not equal intervention targets: i.e. the intervention can address mental health, trauma, food access without having to list these needs as inclusion criteria.

Next steps:

- See how many unique people meet criteria and adjust if too many/few

Screenshot from IMPaCT online training illustrating best practices for integration with clinical care teams

Integration.

Integration of CHWs with clinical care teams is crucial for any program. Currently, most community-based programs are delivered by payers and not well-integrated with providers.

Here are some recommendations:

1. Engage high-level stakeholders at key hospitals/clinics serving our hotspot region. Discuss the idea for a model CHW program and elicit their perspectives.

2. Once you have buy-in from key clinical sites, you can secure EMR access for coordinators, managers and CHWs. This will allow our team to identify patients at the point of care and work hand-in-hand with clinical teams.

3. CHWs should each have 1-2 'clinical homes'. They should have physical touchdown space at each site and pick up patients from only these sites. This fosters better relationships with the clinical team over time.

4. Despite being integrated with clinical sites, the CHW program will be centrally run which provides efficiencies of Scale (See 'Org Chart'). Also busy clinicians are not great at hiring, training or supervising CHWs and a centrally-run program takes this burden out of their hands.

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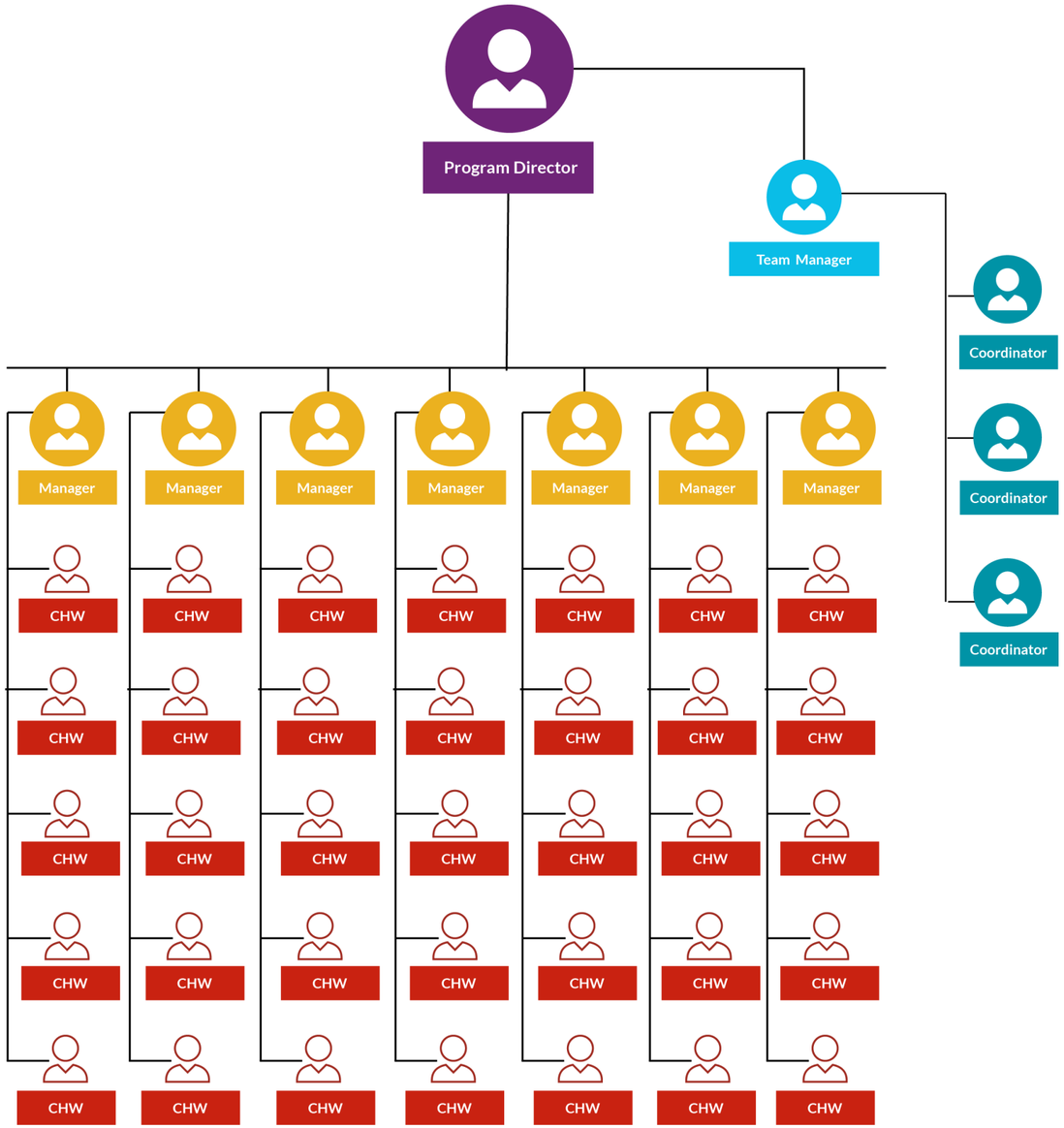
Outcomes	• Hospital admissions (patient/ neonate) • Chronic disease control (HBA1c, BMI, SBP, smoking) • Pre-term births • Infant mortality • Access to primary care
Comparison group	Randomly assigned
Data Collection	Coordinator
Reporting	Homebase for seamless real-time reporting

Evaluation/ROI.

It is tempting to believe that CHW programs are inherently effective. We all hear patient success stories and wonder what would happen to those patients without their CHW. Unfortunately, the literature shows that many CHW programs over the past 200 years have been ineffective.

Reducing hospitalizations, controlling chronic disease and preventing pre-term births are hard needles to move. It is important that the Louisiana model program is using an evidence-based intervention. Even with a proven intervention, it is important to continually track outcomes in a way that is both rigorous and easy enough to use on an ongoing basis. The results of this evaluation can easily be plugged into a cost savings model for tracking ROI over time.

The Penn Center for CHWs, CHVE and the selected MCO will collaborate in the design and conduct of a randomized controlled trial of this CHW demonstration project.



Organization Chart.

This is a sample organizational chart for a CHW program serving 2,100 patients annually. The program director is a high-level leader who is ultimately accountable for budget, hiring, program quality and evaluation. (S)he supervises 7 teams, each led by an MSW manager and comprised of 4-6 CHWs. CHWs on a given team can be embedded within or across practice sites. Teams are supported by Coordinators, who identify and enroll patients, and collect outcomes data for quality control. Coordinators are supervised by a Team Manager who conducts program evaluation and is supervised by the program director.

A program budget, along with job descriptions and detailed work manuals for all roles will be provided during the implementation phase.

Deliverable	Due Date
Review and update Blueprint with selected MCO, LDH, PCCHW and CHVE	Week 1
Post hiring for director, coordinator and managers	Week 2
Create plan for clinical trial	Week 2-10
Confirm hotspot based on strategy, feasibility and admissions/chronic disease data	Week 3-5
See how many unique people meet criteria and adjust	Week 5-7
Develop cost savings model and confirm final budget	Week 5-7
Conduct qualitative interviews with patients	Week 6-10
Engage clinical partners and select participating sites	Week 6-12
Create data infrastructure, including access to clinical EMR	Week 10-12
Adapt existing manuals for IMPaCT Louisiana	Week 10-24
Hire and train director, coordinator and managers	Week 12-16
Post hiring for CHWs	Week 13
Hire CHWs	Week 21
Train CHWs	Week 22-25
Launch CHW program	Week 26
Launch RCT	Week 34

Action Plan.

The leadership of Louisiana MCOs, LDH, and CHVE are among the most visionary for health-related organizations in the United States. LDH enjoys the advantage of overseeing both public health and Medicaid. There is an unprecedented opportunity to invest in effective, scalable and financially sustainable CHW programs that improve the health of Louisiana's most vulnerable communities while saving money for Medicaid. Although there is heavy lifting ahead, this is an achievable goal and will be facilitated by proposed action plan described on the opposite page.

This action plan is a timeline for building a CHW program that will serve 600 patients annually. The proposed dates are preliminary and will be modified after a participating MCO is selected.

We look forward to working with you on this exciting endeavor!

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