What Evidence Supports State Laws to Establish Community Health Worker Scope of Practice and Certification?
Acknowledgments

Disclaimer
The findings and conclusions of this document are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention (CDC).

Acknowledgments
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Suggested Citation
Introduction

Community health workers (CHW) bridge communities and health care systems. By definition, CHWs come from or have a uniquely close understanding of the community served. The U.S. Community Guide to Preventive Services recommends interventions that engage CHWs to prevent cardiovascular disease and diabetes.\(^a\)

States are considering policies to support the CHW workforce (Figure 1). By June 30, 2016, 24 states and the District of Columbia had laws pertaining to CHWs.\(^b\) Sixteen of these states had laws addressing CHW scope of practice (SoP) or CHW certification, or both.\(^b\) These types of interventions are expected to help define and establish standards for the CHW occupation and promote the integration of CHWs into health and social services (Figure 1). This report assessed the best available evidence aligning with state laws that address CHW SoP and CHW certification, which included studies of interventions engaging CHWs who were practicing in accordance with a state CHW SoP or certification law.

What is State CHW scope of practice (SoP)?

**State CHW SoP** can describe the roles that CHWs perform including cultural mediation, outreach, health education, social support, advocacy, capacity building, care coordination, provision of direct services, and research, evaluation, and assessment.\(^c\) A state CHW SoP can also address supervision requirements for CHWs who provide health care services and define the attributes of a CHW, including a requirement for community membership to ensure the hiring of CHWs who understand the communities served. In 2016, 15 states had laws addressing CHW SoP.\(^b\)

What is State CHW certification?

**State CHW Certification** can address training, assessment, and continuing education for the roles described in a state CHW SoP. A voluntary, well-designed, and well-implemented state certification process could help build a state CHW workforce with a common set of core skills, abilities, and knowledge base and training in specialty areas such as chronic disease prevention and control. The title of “Certified CHW” could signal competency to employers, payers, and credentialed members of health care teams. In 2016, eight states had laws addressing CHW certification.\(^b\)

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\(^b\) Centers for Disease Control and Prevention. Division for Heart Disease and Stroke Prevention. A Summary of State Community Health Worker Laws; 2017.

\(^c\) Rosenthal EL, Rush CH, Allen CG, Understanding Scope and Competencies: A Contemporary Look at the United States Community Health Worker Field; 2016. Note that CHWs can perform a broad array of services, as long as they do not conflict with a licensed professional’s SoP.
About This Report

Because there are no studies on the impact of state CHW laws, to support evidence-informed decisions, this report assessed early (i.e., best available) evidence. It updates a previous assessment completed by CDC’s Division for Heart Disease and Stroke Prevention in 2014, which identified 14 types of interventions addressed in evidence-informed state CHW laws; at the time, most of these types of interventions had “best” or “promising” evidence.3

This report updates the evidence assessments for two types of interventions addressed in the previous assessment. **State CHW SoP** and **State CHW Certification** were chosen for this update because these interventions are seen as important first steps towards building a better-prepared and more sustainable CHW workforce.4,5 As of March 2015, 16 states were addressing CHW training and certification through law, program, and partnership approaches.5 As of June 2016, more states had addressed CHW SoP in their laws than any other workforce issue for CHWs, including certification.5

**Best available evidence** for State CHW SoP and State CHW Certification is assessed in this report for strength and quality—the method for this assessment is described on p.9. This evidence included studies published between January 1, 2011, and June 30, 2016 that analyzed interventions engaging CHWs who were practicing in accordance with a state CHW SoP or certification law.

The assessment found that, as of June 2016, State CHW SoP and State CHW Certification had “best” evidence because:

- 10 published studies observed that CHWs performing a role(s) within their legally defined SoP (in Texas, Oregon, and Massachusetts) delivered interventions that had positive health and economic outcomes for populations experiencing health disparities.
- In five of these studies (all set in Texas), the CHWs were certified in accordance with state law.

Overall, results of this evidence assessment suggest that state CHW SoP and certification laws may provide the supportive context in which CHW interventions are successful in the health delivery system.

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How to Use This Report

Consider sharing this and the previous report to state and local health departments, health care providers and payers, and community and nonprofit organizations with a focus on health. When reviewing or disseminating these reports, make sure to consider their limitations:

- The evidence about CHW SoP, certification, and other types of interventions addressed in state CHW laws did not derive from experimental study, so causality cannot be inferred. For example, in this update, there were no studies comparing the effectiveness of CHWs with a SoP to CHWs without a SoP or certified CHWs to non-certified CHWs.
- CHW SoP, certification, and other state CHW laws were broadly defined. A state CHW law in effect at the time of a study was unique to that state, which may limit generalizability of study results.
- Even though this report focuses on laws, non-law approaches may also be effective ways for states to address CHW workforce needs. States consider other factors—legal, social, political, and fiscal—when deciding on a course of action. For example, some states have created CHW training or certification programs without first passing a law to establish program requirements; no studies found in this assessment analyzed the outcomes of such programs.

Evidence Summaries

The next section of this report provides Evidence Summaries for State CHW SoP and State CHW Certification.

Evidence summaries can help you better understand the evidence base as it relates to your individual state. Before reviewing the evidence summaries, it is helpful to research the health problems in your state. CDC offers many state health facts on its website, for example, statistics about chronic diseases such as heart disease, stroke, and diabetes.

Once you know what health problems exist in your state, think about what populations experience these problems. Say your state has a high prevalence of diabetes in the Hispanic population—then you would search the Evidence Summaries for State CHW SoP and State CHW Certification for studies of interventions that improved diabetes-related outcomes for Hispanic populations. For example, when you turn to the CHW SoP Evidence Summary and scan the fields of "Reported health-related outcomes" and "Groups studied," you find a study of an intervention in which CHWs provided health education on diabetes self-management; this is a role that aligns with Texas’s SoP law which defines CHW roles as including community health education. You note that this study found improved glycemic control for a Hispanic population. Then, in the field, "State SoP laws linked to CHW interventions with positive health-outcomes," you find a short descriptions of Texas’s law and two other state CHW SoP laws also linked to CHW interventions with positive health-related outcomes.

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j. TEX. ADMIN CODE 25 §§ 146.1 through 146.8 (146.9 to 146.12 repealed as of 6/24/15) (WestLaw 2015).
Evidence Summaries
A state can define a CHW scope of practice (SoP) by setting forth the potential settings, roles, functions, activities, and supervision requirements for CHWs.

### Evidence for Potential Public Health Impact: VERY STRONG

- **Effectiveness:** ••••
- **Equity and Reach:** ••••
- **Efficiency:** ••••
- **Transferability:** ••••

### Evidence Quality: HIGH

- **Evidence Types:** ••••
- **Evidence from Sources:** ••••
- **Evidence from Evidence from Research:** ••••
- **Evidence from Translation and Practice:** ••••

### Interventions delivered by CHWs performing a role within the state’s legally defined SOP

- Diabetes management education,2-3,5,7,20 cancer education,17 or occupational health and safety training.18
- Community needs assessment and research.4,9,11-15
- Care coordination and patient navigation.5,20,16
- Health screening.6,8,19

### Reported health-related outcomes

- CHW integration and value in care teams.6,8
- Community needs assessment.14
- Improved cancer knowledge,17,19 glycemic control,5,7,20 and blood pressure20 in patients; decreased odds of returning to the emergency room.16
- Increased community capacity to address health issues.18

### Groups studied

Hispanic,5,7,17,20 low-income,5,7, and Latino forest workers.18

### Economic highlights

Cost-effectiveness,7 and savings greater than costs.16

### State SOP laws linked to CHW interventions with positive health-related outcomes

- **Texas**5,6,7,8,14,16,17,20
  
  *Texas law describes the type of activities a CHW may perform as including outreach, patient navigation and follow-up, community health education and information, informal counseling, social support, advocacy, and participation in clinical research TEX. ADMIN CODE 25 §§ 146.1 through 146.8 (WestLaw 2015).*

- **Oregon**18

  *Oregon law states that a CHW is someone who, among other possible functions, may assist members of the community to improve their health and increases the capacity of the community to meet the health care needs of its residents and achieve wellness (OR. REV. STAT. ANN. §§ 414.018 & 414.025 (WestLaw 2014)).*

- **Massachusetts**19

  *Massachusetts law defines a CHW as someone who, among other possible roles, provides direct services, such as informal counseling, social support, care coordination and health screenings. (MASS. GEN. LAWS ANN. ch. 112 §§ 259 to 262 (WestLaw 2013)).*

For more on the scoring procedure, see the [Methods](#) and [QuIC Tool](#).
Evidence base


Research-based studies


Practice-based studies


k. This study found a mixed health-related outcome: at baseline, study participants met process measures and achieved outcome measure targets more frequently though none of these differences reach statistical significance.

l. This study found a mixed health-related outcome: mean changes of HbA1c over 12 months showed a significant intervention effect. No differences between groups for secondary outcomes were found.

m. This study found a mixed reach-related outcome: reports of making referrals to outside agencies were limited, although this may be explained by CHWs’ difficulty in accessing affordable resources.

n. This study found no reach-related outcome: the study found no significant differences in team climate between RNs who work in states with CHW certification programs/.scope of practice laws.
## State Community Health Worker Certification

**Evidence Level:** BEST

A state can establish a certification process for CHWs, by describing education, training, core competencies, reimbursement requirements, and inclusion of CHWs in certification development.

<table>
<thead>
<tr>
<th>Evidence for Potential Public Health Impact: STRONG</th>
<th>Evidence Quality: HIGH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effectiveness: ⬤⬤⬤⬤</td>
<td>Evidence Types: ⬤⬤⬤⬤</td>
</tr>
<tr>
<td>Equity and Reach: ⬤⬤⬤⬤</td>
<td>Sources: ⬤⬤⬤⬤</td>
</tr>
<tr>
<td>Efficiency: ⬤⬤⬤⬤</td>
<td>Evidence from Research: ⬤⬤⬤⬤</td>
</tr>
<tr>
<td>Transferability: ⬤⬤⬤⬤</td>
<td>Evidence from Translation and Practice: ⬤⬤⬤⬤</td>
</tr>
</tbody>
</table>

### Interventions delivered by state-certified CHWs

- Diabetes management education\(^2\),\(^4\),\(^6\) or cancer education.\(^8\)
- Needs assessment or research.\(^7\),\(^11\),\(^12\),\(^13\)
- Patient navigation.\(^9\)

### Reported health-related outcomes

- Community needs assessment.\(^12\)
- Improved cancer knowledge\(^8\) and glycemic control in patients\(^4\),\(^6\) and decreased odds of returning to the emergency room.\(^9\)

### Groups studied

- Hispanic,\(^4\),\(^6\),\(^8\) low-income,\(^4\),\(^6\)

### Economic highlights

- Cost-effectiveness\(^6\) and savings greater than costs.\(^9\)

### State SOP laws linked to CHW interventions with positive health-related outcomes

- Texas\(^4\),\(^6\),\(^8\),\(^9\),\(^12\)

  *In 1999, Texas enacted its first law to establish a voluntary certification program for CHWs. (TEX.HEALTH & SAFETY CODE ANN. §§ 48.001, 48.051 & 48.052 (WestLaw 2015)).*

For more on the scoring procedure, see the [Methods](#) and [QuIC Tool](#).
Evidence base


Research-based studies


Practice-based studies


o. Mixed health-related outcome—mean changes of HbA1c over 12 months showed a significant intervention effect. No differences between groups for secondary outcomes were found.

p. No reach-related outcome—the study found no significant differences in team climate between RNs who work in states with CHW certification programs/scope of practice laws.
Method

Public decision makers need to know which policies are feasible and most likely to achieve the desired effect. There are no studies of the impact of existing state CHW laws, so understanding their potential impact requires assessment of early (i.e., best available) evidence. This report uses a novel approach to complete early evidence assessment called the Quality and Impact of Component Evidence Assessment, or QuIC. For more on the QuIC method, contact CDC DHDSP.

In a QuIC assessment, “best available evidence” refers to the written evidence base that is available at the current time and relevant to assessing a policy’s potential public health impact. It documents empirical and non-empirical analyses of public health policies, programs, and activities. Using data or logic and theory, this evidence directly or indirectly links interventions of interest with actual or expected outcomes. In a QuIC assessment, evidence can include: journal articles, editorials, commentaries, and perspectives; policy briefs, statements, recommendations, and guidelines; evaluation and technical reports; conference papers and presentations; dissertations; and white papers.

This report updates a QuIC Evidence Assessment completed in 2014, which identified 14 types of interventions addressed by components of evidence-informed state CHW laws. This report updates the evidence assessment for the interventions 1) State CHW Scope of Practice (SoP) (now including supervision) and 2) State CHW Certification (core and specialty). The following search was completed to update the evidence bases from the 2014 assessment (Figure 2).

Figure 2. 2016 State CHW SoP and State CHW Certification evidence search

Evidence collection
Returned 316 items
1. Published and grey literature from 2014 assessment reduced from all years to years 2011-2014 (52 items included).
2. CDC library search for evidence in English for years 2013-2016 (218 items included).
3. Grey literature for years 2011-2016 collected from CHW and policy websites and subject matter experts (46 items included).

Evidence exclusion
Removed 296 items
1. Duplicate (8 items excluded).
2. Abstract only (3 items excluded).
5. Not an empirical study (e.g., narrative review of existing studies) (90 items excluded).
6. Intervention did not implement a relevant state CHW SOP or certification law in effect at the time (126 items excluded).

Evidence assessment
Coded total of 20 items
1. Studies linked to state CHW SOP laws (19 items).
2. Studies linked to state CHW certification laws (12 items).

As Figure 2 shows, the collected evidence base of 316 items was ultimately narrowed to the 20 studies in which CHWs were practicing in accordance with a relevant state CHW SoP or certification law. Existence of a state law during a study was determined using CDC DHDSP’s law assessment data up to June 30, 2016.

To assess the evidence level for a type of intervention addressed by a component of a public policy, a QuIC Evidence Assessment appraises 1) evidence for potential public health impact and 2) evidence quality. In this assessment, four trained CDC policy staff developed coding rules using the QuIC approach, and then coded the evidence bases for State CHW SoP and State CHW Certification. Next, a fifth policy staff coded a sample of 9 items of evidence for reliability. Agreement across the evidence for potential impact codes was 68%; across the quality codes, it was 75%. After disagreements were discussed, the fifth policy staff coded all 20 items of evidence, after which, agreement reached 80% for impact and 83% for quality.

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Reconciliation of the remaining discrepancies was reached through discussion. Two QuIC Tools—one for State CHW SoP and one for State CHW certification—were completed using reconciled coding data (see p.11 for the QuIC Tool). To calculate the evidence for potential public health impact level and the evidence quality level for State CHW SoP and State CHW Certification, their eight criteria from the QuIC Tool were each assigned a numeric score (0–4 points; if none of its requirements were met, a criterion was assigned a score of 0 points) for the highest level reached. The four criteria scores for evidence for potential impact were summed as were the four criteria scores for evidence quality, and these numeric scores were converted into ordinal evidence levels.

This procedure gave each of the evidence bases for State CHW SoP and State CHW Certification an evidence for potential public health impact level and an evidence quality level, which were used to categorize them (see Table below). Both State CHW SoP and State CHW Certification had evidence bases that scored “best.” Lastly, the coders developed evidence summaries for each of these types of interventions. See p.12 for more on how an evidence summary was written.

**Table. Method for categorizing overall evidence level, using evidence for potential public health impact and evidence quality levels**

<table>
<thead>
<tr>
<th>Evidence for Potential Public Health Impact Level</th>
<th>Evidence Quality Level</th>
<th>Evidence Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strong or Very Strong</td>
<td>High or Very High</td>
<td>Best</td>
</tr>
<tr>
<td>Weak or Moderate</td>
<td>High or Very High</td>
<td>Promising Evidence Quality</td>
</tr>
<tr>
<td>Strong or Very Strong</td>
<td>Low or Moderate</td>
<td>Promising Evidence for Potential Public Health Impact</td>
</tr>
<tr>
<td>Weak or Moderate</td>
<td>Low or Moderate</td>
<td>Emerging</td>
</tr>
</tbody>
</table>

s. The evidence for potential impact level was determined using the following conversion: 1–4 points= weak evidence; 5–8 points= moderate evidence; 9–12 points = strong evidence; and 13–16 points= very strong evidence. The evidence quality level was determined using the following conversion: 1–4 points= low quality evidence; 5–8 points= moderate quality evidence; 9–12 points = high quality evidence; and 13–16 points= very high quality evidence. For example, if the Effectiveness criterion scored “very strong” and the Equity and Reach criterion scored “very strong” and the Efficiency criterion scored “strong” and the Transferability criterion scored “strong,” then 4+4+3+3=14=“very strong” evidence for potential impact.
# QuIC Evidence Assessment Tool

## Section 1. Evidence for Potential Public Health Impact

<table>
<thead>
<tr>
<th>Criterion and what it measures</th>
<th>Weak Evidence</th>
<th>Moderate Evidence</th>
<th>Strong Evidence</th>
<th>Very Strong Evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Effectiveness</strong> Does it work, i.e., improve outcomes relevant to health?</td>
<td>Indirect evidence for a positive expected outcome relevant to health</td>
<td>Direct evidence for a positive expected outcome relevant to health</td>
<td>Indirect evidence of mostly positive actual outcomes relevant to health</td>
<td>Direct evidence of mostly positive actual outcomes relevant to health</td>
</tr>
<tr>
<td><strong>Equity and Reach</strong> Does it work for target population(s)?</td>
<td>Indirect evidence for a positive expected outcome relevant to equity and reach</td>
<td>Direct evidence for a positive expected outcome relevant to equity and reach</td>
<td>Indirect evidence of mostly positive actual outcomes relevant to equity and reach</td>
<td>Direct evidence of mostly positive actual outcomes relevant to equity and reach</td>
</tr>
<tr>
<td><strong>Efficiency</strong> Is it a good use of resources?</td>
<td>Indirect evidence for a positive expected outcome relevant to efficiency</td>
<td>Direct evidence for a positive expected outcome relevant to efficiency</td>
<td>Indirect evidence of mostly positive actual outcomes relevant to efficiency</td>
<td>Direct evidence of mostly positive actual outcomes relevant to efficiency</td>
</tr>
<tr>
<td><strong>Transferability</strong> Does it work across diverse settings?</td>
<td>Indirect evidence for a positive expected outcome relevant to health in two or more regions of the United States</td>
<td>Direct evidence for a positive expected outcome relevant to health in two or more regions of the United States</td>
<td>Indirect evidence of mostly positive actual outcomes relevant to health in two or more regions of the United States</td>
<td>Direct evidence of mostly positive actual outcomes relevant to health in two or more regions of the United States</td>
</tr>
</tbody>
</table>

Note: if none of its requirements are met, a criterion is assigned a score of 0 points.

## Section 2. Evidence Quality

<table>
<thead>
<tr>
<th>Criterion and what it measures</th>
<th>Low Quality</th>
<th>Moderate Quality</th>
<th>High Quality</th>
<th>Very High Quality</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Evidence Types</strong> What is the most rigorous design?</td>
<td>A narrative review or commentary suggests a positive outcome</td>
<td>A non-experimental study suggests a positive outcome</td>
<td>An experimental or quasi-experiment suggests a positive outcome</td>
<td>A systematic review suggests a positive outcome</td>
</tr>
<tr>
<td><strong>Sources</strong> What is the most credible source?</td>
<td>A peer-reviewed journal or conference publication without conflict of interest disclosure suggests a positive outcome</td>
<td>A publication by a nonprofit or government organization suggests a positive outcome</td>
<td>A peer-reviewed journal or conference publication with conflict of interest disclosure suggests a positive outcome</td>
<td>A publication by a public health authority suggests a positive outcome</td>
</tr>
<tr>
<td><strong>Evidence from Research</strong> Relevance to controlled settings?</td>
<td>A small amount of evidence from research suggests positive outcomes</td>
<td>A moderate amount of evidence from research suggests positive outcomes</td>
<td>A large amount of evidence from research suggests positive outcomes</td>
<td>A very large amount of evidence from research suggests positive outcomes</td>
</tr>
<tr>
<td><strong>Evidence from Translation and Practice</strong> Relevance to real world?</td>
<td>A small amount of evidence from translation and practice suggests positive outcomes</td>
<td>A moderate amount of evidence from translation and practice suggests positive outcomes</td>
<td>A large amount of evidence from translation and practice suggests positive outcomes</td>
<td>A very large amount of evidence from translation and practice suggests positive outcomes</td>
</tr>
</tbody>
</table>

Note: if none of its requirements are met, a criterion is assigned a score of 0 points.
Evidence Level: **LEVEL** This field provides this type of intervention’s evidence level which can be used to inform its priority in policymaking. Evidence level can be “best”, “promising (quality)”, “promising (impact)”, or “emerging”.

This field describes the specific interventions that have been grouped under this type of intervention.

<table>
<thead>
<tr>
<th>Evidence for Potential Public Health Impact: <strong>LEVEL</strong></th>
<th>Effectiveness: ★★★★</th>
<th>Evidence Quality: <strong>LEVEL</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Evidence for impact level can be Weak, Moderate, Strong, or Very Strong</td>
<td>Equity and Reach: ★★★★</td>
<td>Evidence Types: ★★★★</td>
</tr>
<tr>
<td>Efficiency: ★★★★</td>
<td>Evidence quality level can be Weak, Moderate, High, or Very High</td>
<td>Sources: ★★★★</td>
</tr>
<tr>
<td>Transferability: ★★★★</td>
<td>Evidence from Research: ★★★★</td>
<td>Evidence from Translation and Practice: ★★★★</td>
</tr>
</tbody>
</table>

Interventions delivered by CHWs

This field describes interventions delivered by certified CHWs practicing and/or CHWs practicing in accordance with a relevant state SOP law. For example, because there was a study which evaluated the outcomes of diabetes management education delivered by state-certified CHWs, “Diabetes management education” is listed in this field in the Evidence Summary for State CHW Certification.

Reported health-related outcomes

This field reports positive health-related outcomes from the intervention studies. Note that non-intervention study outcomes contributed to the evidence level, but are not described in this field and that non-positive outcomes are footnoted in the “Evidence base” list (below). Note that evidence for SoP and certification was indirect, i.e., studies did not focus specifically on SoP or certification as independent factors that explained health outcomes.

Groups studied

This field reports the groups for which intervention studies found positive health-related outcomes.

Economic highlights

This field reports any positive economic outcomes of the interventions studied such as cost-effectiveness, savings, and quality of care.

State laws linked to CHW interventions with positive health-related outcomes

This field provides the specific state law(s) that provide the authority for or facilitate the programs studied in the evidence base. For example, while Texas’s SoP law (TEX. ADMIN CODE 25 §§ 146.1 through 146.8), which describes CHW SoP as including community health education, was in effect, a program that engaged CHWs to provide diabetes management education had positive outcomes. Therefore, in the State CHW SoP Evidence Summary, this field provides a short summary of Texas’s law along with a citation to the study of this program.

Evidence base

**Research-based studies**

Here you will find references for intervention studies that took place in a research context. In these studies, researchers were able to allocate subjects into the intervention and the control groups.

**Practice-based studies**

Here you will find references for intervention studies that took place under real-world circumstances. In these studies, evaluators were not able to allocate subjects into the intervention and the control groups.