Chronic Disease Management

Performance & Promising Practices

Based on Uniform Data Systems (UDS) Reports

3rd Edition

Authors
Rajesh Parikh, M.D., MPH – Vice President of Clinical Services & Workforce Development, IPHCA
Naila Quraishi, MPH – Program Manager, IPHCA

IPHCA Organizational Member Edition

Table of Contents

Table of Contents
Acknowledgement i
Introduction ii

Performance & Promising Practices for Chronic Disease Management Indicators

Asthma Treatment .... A
Performance .... A-i
2013 Promising Practices .... A-ii
2015 Promising Practices .... A-iii
References .... A-R

Cholesterol Treatment & Heart Attack/Stroke Treatment .... B
Performance – Cholesterol Treatment .... B-i
Performance – Heart Attack/Stroke Treatment .... B-ii
2015 Promising Practices .... B-iii
References .... B-R

Hypertension Control C
Performance .... C-i
2013 Promising Practices .... C-ii
2014 Promising Practices .... C-iii
References .... C-R

Uncontrolled Diabetes .... D
Performance .... D-i
2013 Promising Practices .... D-ii
2014 Promising Practices .... D-iii
2015 Promising Practices .... D-iv
References .... D-R

HIV Linkage to Care .... E
Performance .... E-i
2015 Promising Practices .... E-ii
References .... E-R

QI and System-Level Strategies iii

Appendices
Appendix A – Promising Practices Health Center Information .... App A
Appendix B – Health Center Stratification by Number of Patients Served .... App B
Appendix C – Asthma Forms 2013 .... App C
Appendix D – Hypertension Treatment Protocol .... App D
Appendix E – 2015 M.A.P. Checklists for BP Control .... App E
Appendix F – Diabetes Self-Management Education & Support Algorithm: Action Steps .... App F
Appendix G – Initial Conversation about Prediabetes .... App G
Appendix H– HIV Linkage to Care .... App H
Appendix I – HITEQ Resources .... App I
Appendix J – Guide to Patient and Family Engagement .... App K
Appendix K – The Joint Commission Health Literacy & Self-Management Tools .... App L

Acknowledgement

Acknowledgement
As we continue to build on the Promising Practices and Performances document to foster peer to peer learning and develop a comprehensive resource of evidence-based recommendations, we are thankful for all the support and positive feedback we have received.

We are extremely thankful to Sachin Vispute for the initial draft of the document on performance section and to Samantha McCurties for the section on promising practices. In addition, we express our gratitude to Illinois Primary Health Care Association (IPHCA)'s Clinical Support Committee and IPHCA's Chief Operating Officer, Kelly Carter* for their valuable feedback since the beginning. IPHCA's Communications team provided tremendous support in editing and designing this resource.

Last, but not the least, without whom, this report would be incomplete, a special thank you to all the health centers for their valuable time in discussing their successful strategies with us. Finally, we want to express our profound admiration to all the health centers for their tremendous efforts in addressing health disparities.

Naila Quraishi
Rajesh Parikh

Authors:
- Naila Quraishi, MPH – Grants Program Coordinator
- Rajesh Parikh, MD, MPH – Vice President of Clinical Services
- Manasi Jayaprakash, MD, MPH – Manager of Quality Improvement*

Health centers interviewed:
- Promising Practices for 2013 data:
  - PCC Community Wellness Center
  - Asian Human Services Family Health Center
  - Rural Health, Inc.
  - Shawnee Health Service
  - Community Health Improvement Center
  - Esperanza Health Centers
  - VNA Health Care
- Promising Practices for 2014 data:
  - Cass County Health Department
  - Heartland Health Centers
  - Lawndale Christian Health Center
  - Heartland Community Health Clinic
- Promising Practices for 2015 data:
  - Community Health Care, Inc.
  - Esperanza Health Centers
  - PrimeCare Community Health, Inc.
  - VNA Health Care

** Staff no longer with Association.*

Introduction

Illinois Primary Health Care Association (IPHCA) member performances are based on Uniform Data System (UDS) quality of chronic disease management indicators and its comparison with Healthy People 2020 (HP 2020) goals that were available. Community health centers (CHCs) reach populations that face the most burdens of accessing and maintaining health care. They have made admirable strides in bridging the gap between unaffordability and health care in this population group. However, with an influx of more patients through the Affordable Care Act and the existing burden of chronic diseases, health centers face multiple challenges, some of which are establishing continuity of care, need for culturally tailoring the services, transition to electronic health record (EHR) systems, shortage of a primary care workforce, resource constraints and the challenge of navigating the Medicaid environment within the state. In the face of these challenges, there is a need for tracking performances against benchmarks and compilation of evidence-based guidelines and promising practices that are adaptable to primary care settings.

Methods
IPHCA member health center performances for six indicators on chronic disease management have been graphed using percentiles from 2010 to 2015 with data from the Health Resources and Services Administration (HRSA); the six indicators are: asthma treatment, blood pressure control, diabetes control, cholesterol treatment, heart attack/stroke treatment, and HIV linkage to care. The HP 2020 targets are used as benchmarks to measure performance where available. For select chronic disease management indicators (heart attack/stroke treatment, cholesterol treatment, diabetes control, asthma treatment, and HIV linkage to care), member health centers that have consistently exceeded the HP 2020 targets during 2010-2015 UDS data reporting period or have demonstrated improvement according to the latest UDS data were identified and interviewed to recognize their successful strategies that have helped them overcome barriers and achieve success. The following health centers were either interviewed or sent their strategies on select Chronic Disease Management indicators: Community Health Care, Inc., Esperanza Health Centers, PrimeCare Community Health, Inc. and VNA Health Care.

In addition, evidence-based recommendations from experts such as Community Preventive Services Task Force and/or U.S. Preventive Services Task Force (Task Force) and promising strategies identified through literature review are highlighted. Promising practices and recommendations around care coordination have also been highlighted.

Purpose
The essential purpose of this document is to provide a resource for health centers that consists of not only evidence-based recommendations, but also includes promising practices from some of the best performing health centers. Therefore, this document provides a platform to generate discussions on how to overcome challenges and how to best adapt successful practices to primary care settings. It is important to remember health center characteristics, such as the population group, location, revenue source, prevalence of diseases and availability of resources, are varied, which might contribute to significant challenges for some. In Appendix B, health centers are stratified by patient population size.

Current Limitations of Using UDS Data
Performance is not 100% reliable and generalizable as the reporting varies between health centers; some report a sample while others report universal data. However, it is the only publicly available data, which can be used to track performance and generate discussion.

IPHCA Member Characteristics
In 2015-16 there were 44 member health centers from Illinois, two from Iowa, and one from Missouri, generating a total of 47 IPHCA member health centers for which UDS data was available. As of June 2017, the total number of patients served by Illinois grantees was 1,229,655; 78% of Illinois grantees are accredited as Patient Centered Medical Home (PCMH) and 93% of Illinois grantees have transitioned into Electronic Health Record (EHR) systems. Both centers in Iowa are PCMH recognized and have EHR systems. The health center in Missouri also has an EHR system.

Using this Resource
Strategies for improving preventive health screening and services are categorized into the following sections: Illinois Health Center Spotlights, The Task Force Recommendations and Strategies Identified through Literature Search. Recommendations from the U.S. Preventive Services Task Force and Community Preventive Services Task Force are included under The Task Force recommendations. Both task force recommendations are based on a scientific systematic review process that identifies recommendations from numerous existing studies with strong or sufficient evidence. The U.S. Preventive Services Task Force develops recommendations for clinical preventive services, while Community Preventive Services Task Force develops recommendations about community preventive services, programs and policies to improve health.

Performance on Asthma Treatment

Rationale: If patients identified with persistent asthma are provided with appropriate pharmacological intervention, then they will be less likely to have asthma attacks, require fewer emergency room visits, and be less likely to develop complications related to asthma including death.

UDS Performance Measure:	**HP 2020 Objective:**
"Percentage of patients aged 5 through 40 with a diagnosis of mild, moderate, or severe persistent asthma who received or were prescribed accepted pharmacologic therapy."	There is no HP 2020 objective for comparison at the moment.

National & State Comparison:
Overall, performance of asthma treatment is approaching closer to the average with an overall improvement. Assistance to the lower performing health centers is required to ensure correct documentation in EHR.

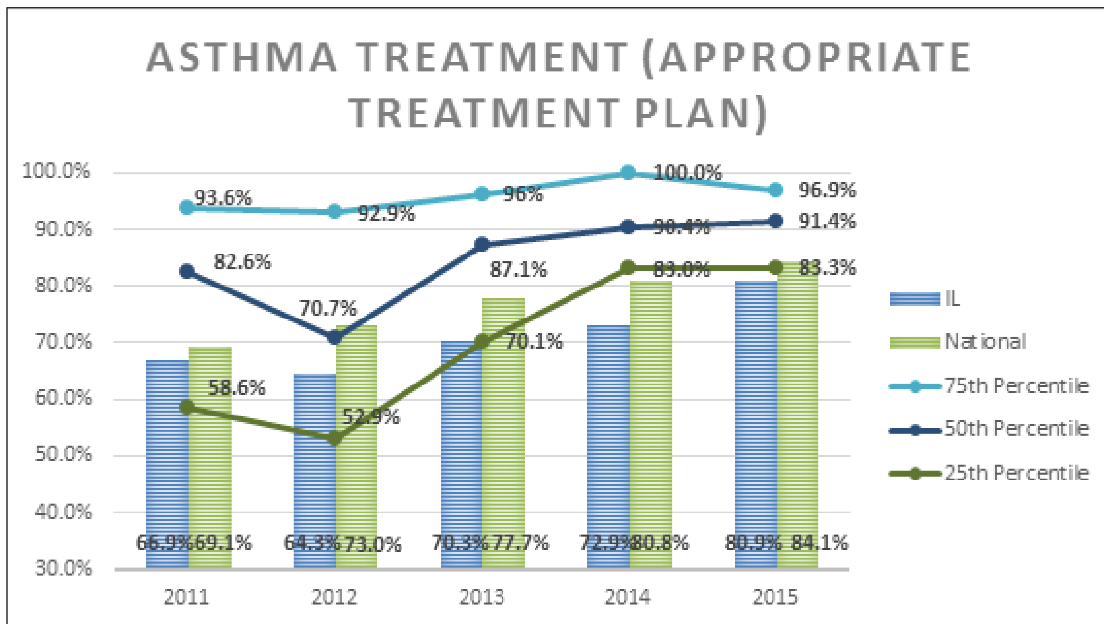


Figure A: Comparison of UDS averages (Illinois and National) and IPHCA member health center percentiles based on UDS data for Asthma Treatment

Performance on Asthma Treatment

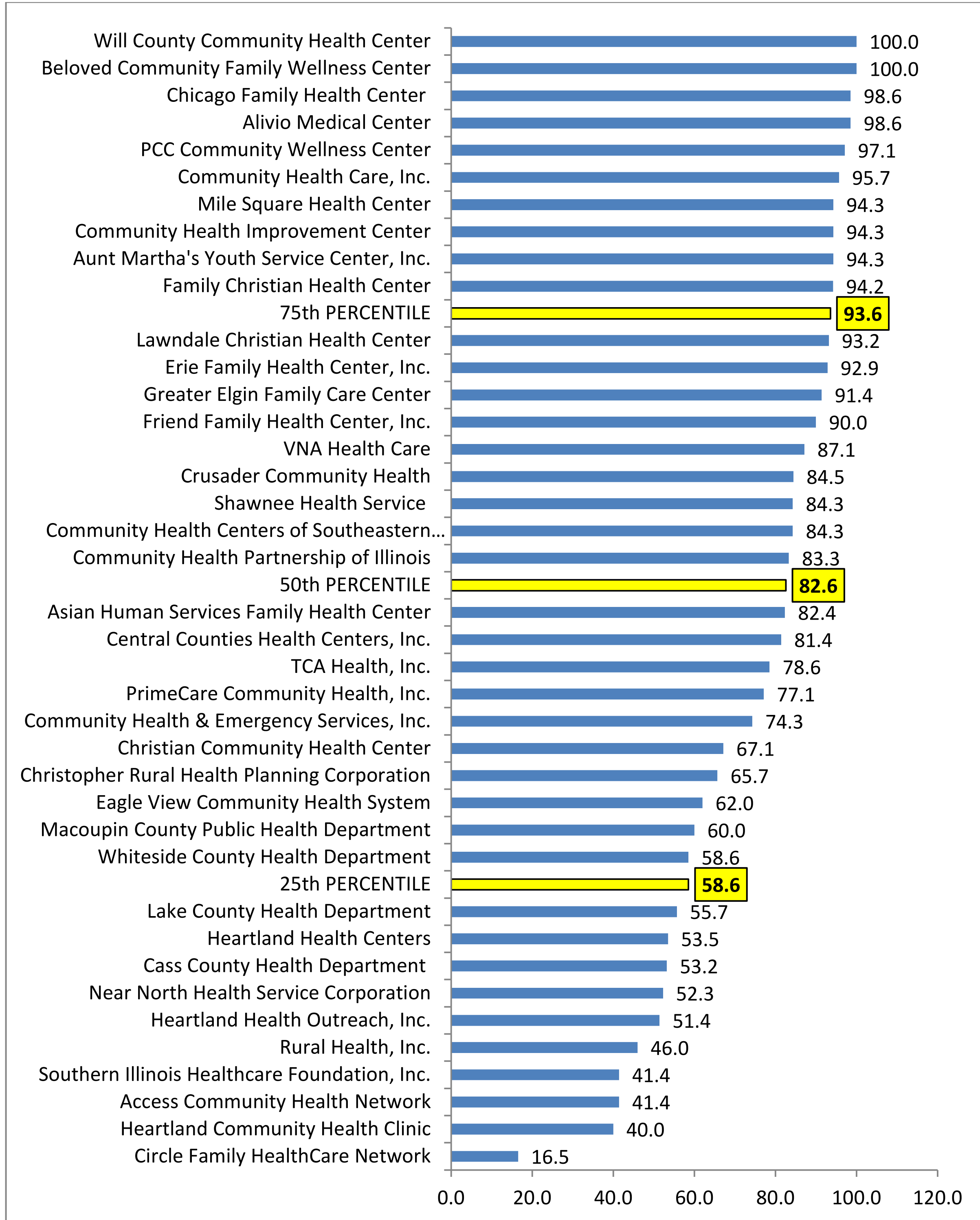


Figure A-1: 2011 Asthma Treatment Plan data (%) of IPHCA member health centers and their percentiles

Performance on Asthma Treatment

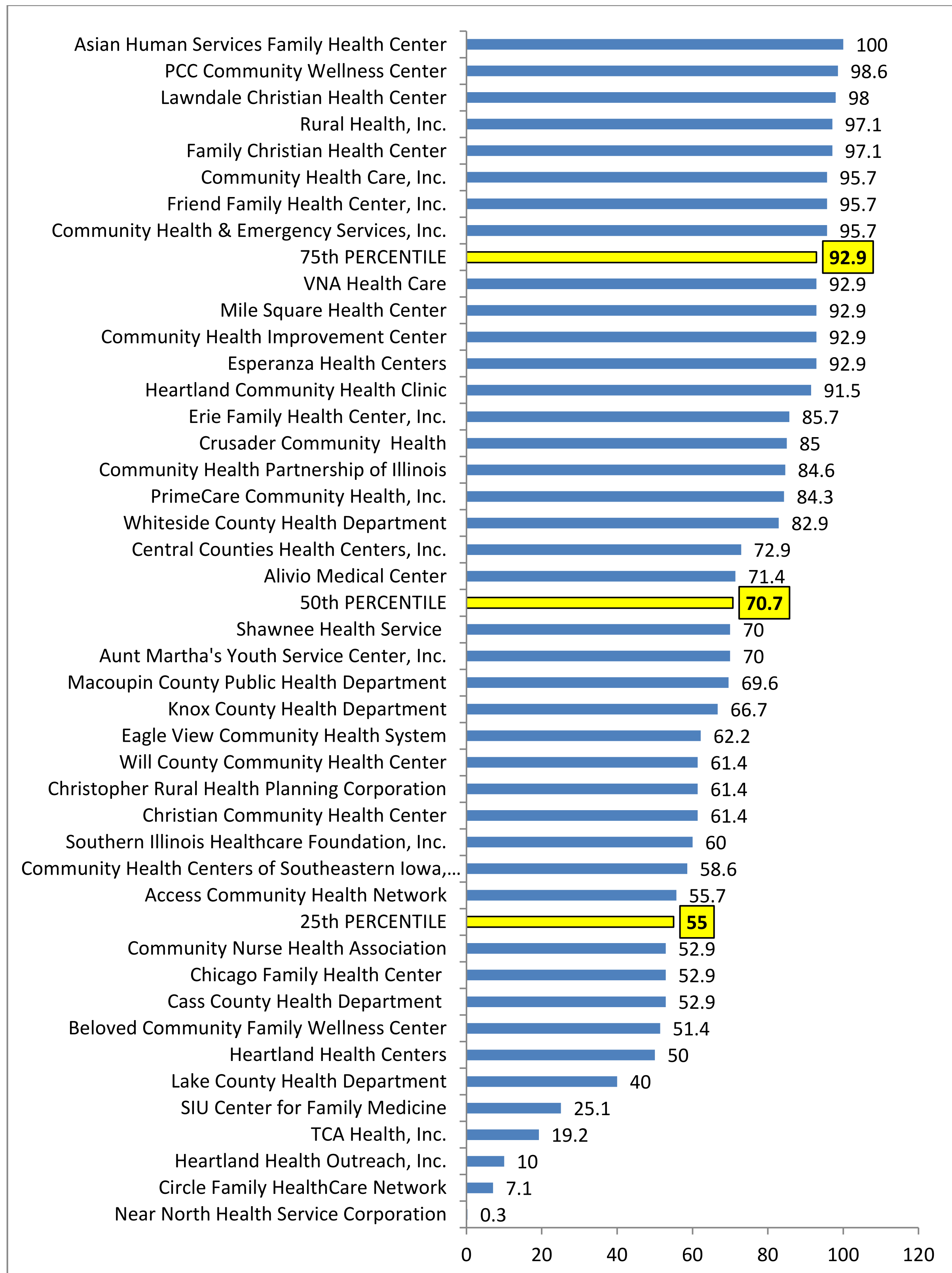


Figure A-2: 2012 Asthma Treatment Plan data (%) of IPHCA member health centers and their percentiles

Performance on Asthma Treatment

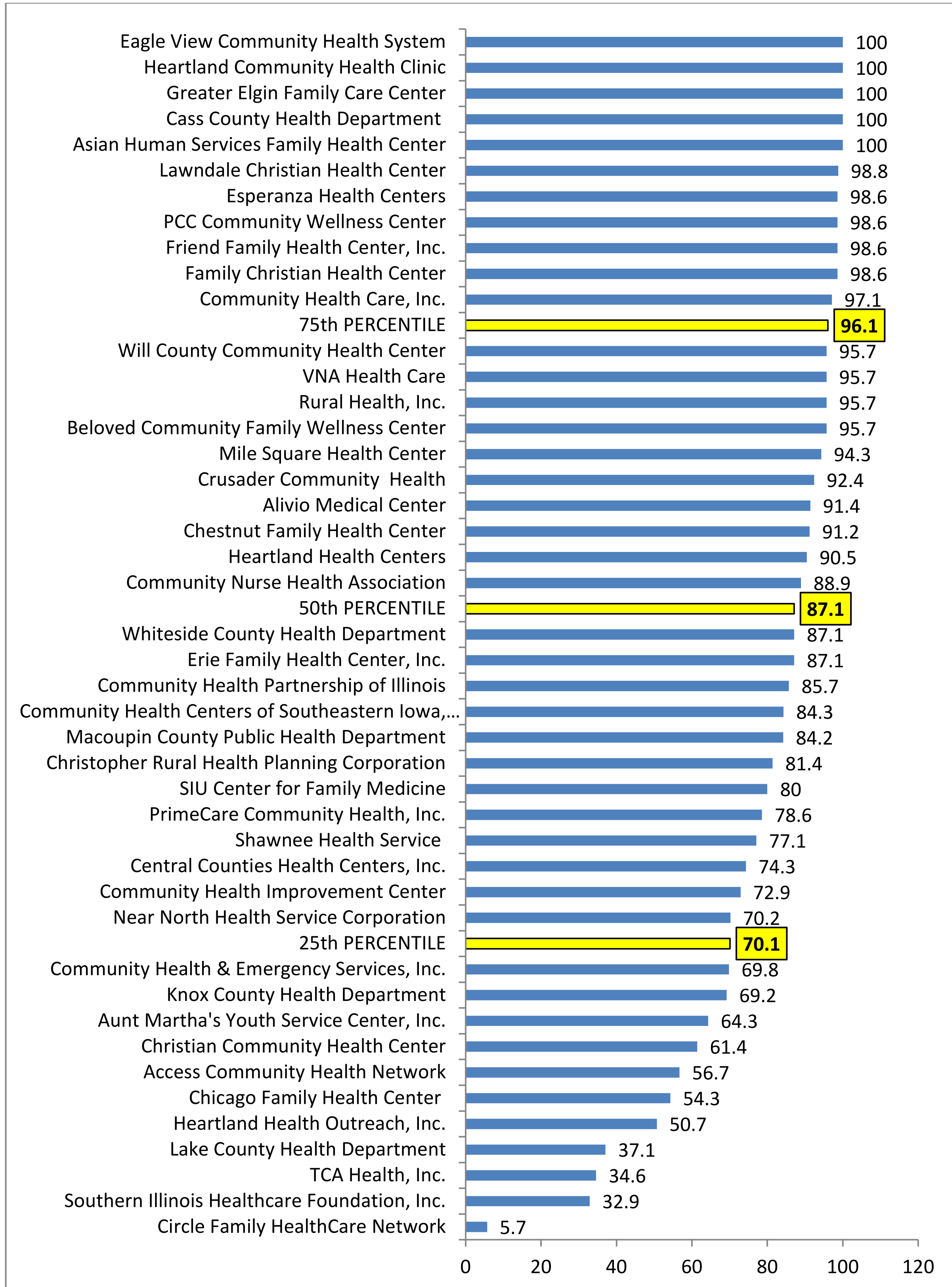


Figure A-3: 2013 Asthma Treatment Plan data (%) of IPHCA member health centers and their percentiles

Performance on Asthma Treatment

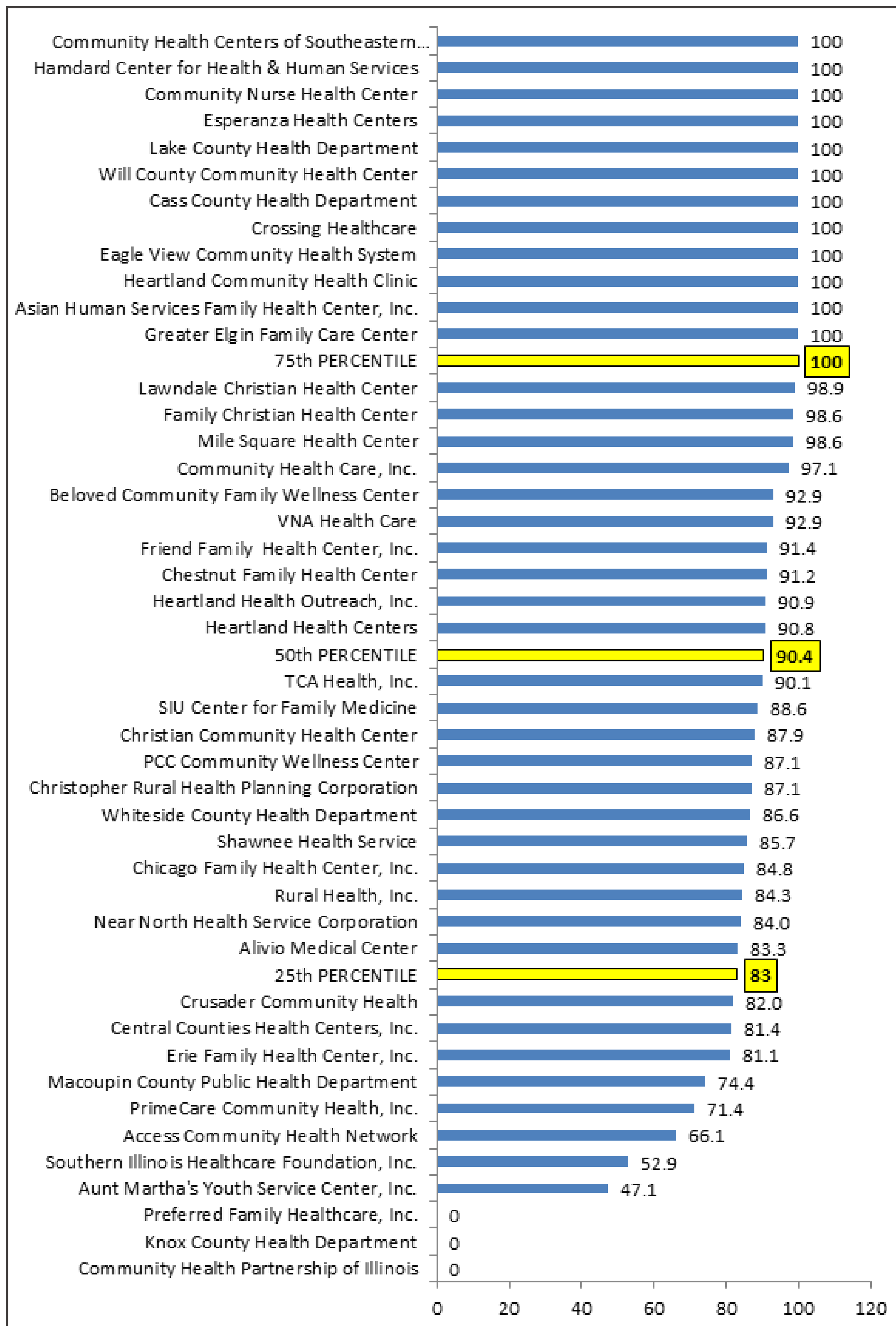


Figure A-4: 2014 Asthma Treatment data (%) of IPHCA member health centers and their percentiles

Performance on Asthma Treatment

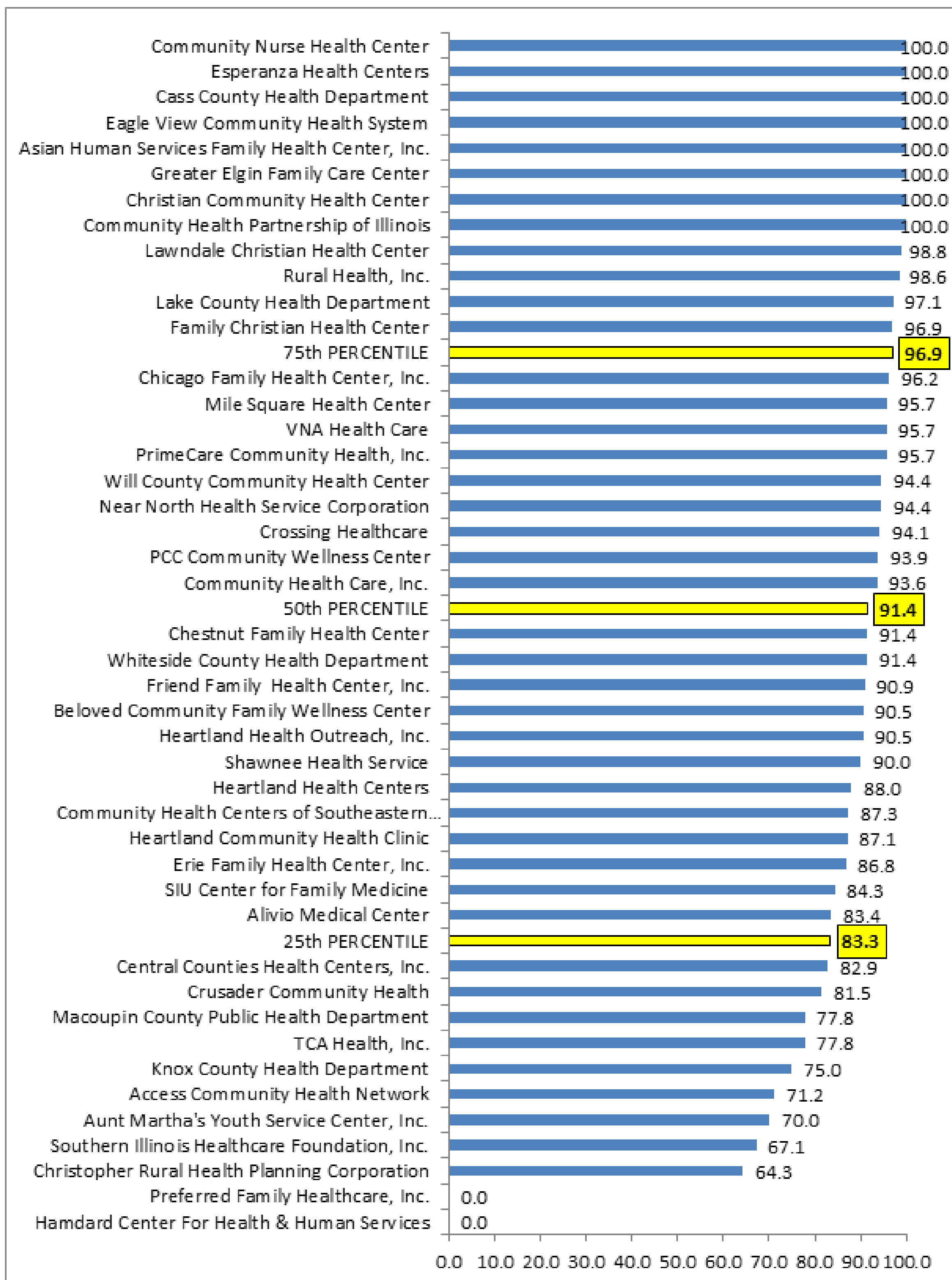


Figure A-5: 2015 Asthma Treatment data (%) of IPHCA member health centers and their percentiles

Promising Practices – Asthma Treatment – 2013

Although UDS asthma measure considers only appropriate pharmacologic therapy, the below strategies are focused on all the components of asthma management that aim to improve overall patient outcomes and reduce acute asthma attacks and emergency visits.

Illinois Health Center Spotlight

1 Esperanza Health Centers – Chicago, IL

Esperanza Health Center's performance on asthma measure improved from 92.9% in 2012 to 98.6% in 2013, making it one of the top 10 performers in 2013. Some of their strategies surrounding this measure are:

- Without any specific diagnostic code for intermittent asthma in EHR (NextGen), this measure is manually reviewed for UDS submission, which provides an accurate entry.
- A program is being developed at Esperanza to address allergies.
- Esperanza has an allergist on site once a week and initiated a program to perform incentive spirometer and Asthma Control Test (ACT) during asthma visits at one of their sites.

2 PCC Community Wellness Center – Oak Park, IL

PCC Community Wellness Center's (PCC) performance on the asthma indicator has been consistently above the 75th percentile from 2011-2013 with the percentage of asthma patients on appropriate pharmacologic treatment being 97.1% in 2011, and 98.6% in 2012 and 2013. This is also much higher than state and national averages. In addition to the quality improvement strategies highlighted at the end of the document, PCC employs Electronic Medical Record (EMR) forms that aid in adhering to the protocol for asthma control. This is similar to the recommendations for quality improvement that were identified through literature review.

The Community Guide

The Task Force recommends the use of home-based, multi-trigger, multicomponent interventions with an environmental focus for children and adolescents with asthma based on strong evidence of effectiveness in improving overall quality of life and productivity, specifically improving asthma symptoms and reducing the number of school days missed due to asthma.[1]

Interventions involve home visits by trained personnel to conduct two or more activities. Environmental activities include:

- Assessment of the home environment.
- Changing the indoor home environment to reduce exposure to asthma triggers.
- Education about the home environment.

One or more of additional non-environmental activities were also included in some programs:

- Training and education to improve asthma self-management.
- General asthma education.
- Social services and support.
- Coordinated care for the asthma client.

Other Strategies From Literature Search

1 Quality Improvement for Childhood Asthma in Community Health Centers:

This study[2] evaluates a streamlined Continuous Quality Improvement (CQI) intervention along with the active participation of asthma coordinators in 17 community health centers in relation to compliance with National Asthma Education and Prevention Program (NAEPP) guidelines and asthma-related outcomes for children and caregivers. For the patients and families, results indicated that significantly fewer families reported emergency department visits, reduced hospitalizations, decrease in frequent daytime symptoms and lesser missed school days in addition to improved quality of life. The health centers saw significant clinic-wide improvements in symptom documentation, health care use, and review of action plans. Based on the results and the representativeness of the study population (60% Medicaid and 9% uninsured), the intervention components can be translated into the Illinois health center settings.

They are listed below:

- Multidisciplinary CQI teams were formed at each site where each clinic used a team-based, systematic, data-driven CQI process.
- Changes were implemented in patient education and at least 2 of 3 additional core components (asthma visit flow sheet, asthma action plan, and home trigger assessment).
- Asthma coordinator (health educators, community health workers, medical assistants, or respiratory therapists) played a crucial role in the intervention.
- Role of asthma coordinator:
  - providing patient education;
  - ensuring incorporation of information collected through patient interactions into CQI planning; and,
  - coordination of CQI interventions and program activities, care management, and linkages among providers, home, school, and community.

2 Tools and Strategies for Improving Asthma Management:

The site was a large residency training site staffed by many part-time physicians using paper charts in Massachusetts. Rapid chart audits (100 charts) helped in identifying the deviation of asthma practices from recommended guidelines, which led to designing interventions with the aim of improving quality of care provided to asthma patients over six months. The focus was shifted to team effort with substantial reliance on nursing staff and chart tools designed to stimulate the capture of essential information[3]. The tools and strategies recommended can be translated to organizations using EHRs.The following are the interventions that were initiated:

- **Nursing Staff** – Training for nurses on asthma guidelines and positive team-building experience was sponsored by the facility.
- **Asthma Registry** – Patient files with asthma were flagged to help keep track of asthma patients even when they were coming in for unrelated symptoms.
- **Patient Self-Assessment** – Nursing staff were charged with identifying patients with asthma and ensuring that patients complete a self-assessment form (attached in Appendix G). The form served to help patients be more active in their care and help practice deliver appropriate care to asthma patients even when they were presenting for other conditions.
- **Chart Reminders** – An asthma-management flow sheet (Appendix G) was developed to keep staff on-track with guideline-driven care. Nursing staff were responsible for initiating the flow sheet that was designed to be used for up to four visits thus helping physicians identify trends. The form also contained reminders about peak flow measurement, flu vaccination and pneumococcal polysaccharide vaccine.
- **Internal Audits** – Nurse manager audited daily on documentation of the asthma severity rating, personal best peak flow, visit peak flow results and use of controller medications. This aided in rapid achievement of 100% performance on these measures.

Application To Health Centers

Although not all health centers can implement all strategies at once, health centers can choose strategies that are well suited to their need, based on the availability of resources. Some key strategies are:

- Transferring more responsibility to nursing staff and providing appropriate training might reduce physician burden.
- Establishing asthma coordinators where there is a higher burden of asthma and expanding the scope of their services might aid in targeting asthma control measures other than pharmacologic therapy.
- Utilizing resources such as the patient self-assessment form might aid patients to take more control over their asthma self-management.
- Following up on asthma even when patients present for other conditions will help in monitoring of asthma cases.
- Easily accessible protocols for treatment will help in adhering to guidelines.

Member Health Center Spotlight

1 Esperanza Health Centers – Chicago, IL

Esperanza Health Centers served 18,517 patients in 2015 at their three locations. Esperanza has been a top performing health center with 100% performance measure in 2014 and 2015 for the asthma treatment indicator. System-level strategies and the following focused strategies have helped Esperanza reach these rates:

- Care coordinators conduct outreach to patients who have asthma medication prescribed to ensure adherence to treatment.
- Quarterly reports enable care coordinators to follow-up with patients prescribed with asthma treatment.
- Outreach is also conducted for those patients who are eligible to receive treatment and are not meeting the requirement.

Task Force Recommendations

Based on strong evidence, the Community Guide recommends using home-based multi-trigger, multicomponent interventions with an environmental focus for children and adolescents with asthma in improving asthma symptoms and reducing the number of days missed of school due to asthma. These interventions involve home visits by trained personnel to assess, change and educate about the home environment. In addition, most programs include one or more of the following:

- Training and education to improve asthma self-management
- General asthma education
- Social services and support
- Coordinated care for asthma patient

Other Strategies from Literature Search

1 Tools and Guidelines for Asthma Control

a. Asthma Care Quick Reference

The National Heart, Lung, and Blood Institute (NHLBI) developed an Asthma Care Quick Reference Guide to provide health care providers with tools to diagnose, treat, and provide follow-up care to asthma patients. The guide also provides recommendations from the National Asthma Education and Prevention Program's "Expert Panel Report 3: Guidelines for the Diagnosis and Management of Asthma". This guide specifically includes the following sections:

- Key Clinical Activities for Quality Asthma Care
- Asthma Car for Special Circumstances
- Managing Exacerbations
- Initial Visit: Classifying Asthma Severity and Initiating Therapy
- Follow-Up Visits: Assessing Asthma Control and Adjusting Therapy
- Stepwise Approach for Managing Asthma Long Term
- Estimated Comparative Daily Dosages
- Usual Dosages for Other Long-term Control Medications
- Responding to Patient Questions about Inhaled Corticosteroids
- Responding to Patient Questions about Long-Acting Beta2-Agonists

The complete guide can be accessed from: https://www.nhlbi.nih.gov/files/docs/guidelines/asthma_qrg.pdf

2 Providing Self-Management Support

a. Asthma Education and Self-Management Strategies

The American Lung Association developed a resource called the Asthma 101 booklet which provides basic asthma education including impacts, signs and symptoms, medication and environmental treatment, and self-management strategies. The resource provides strategies on medication management as well as detailed infographics on using inhalers. The booklet is available in both English and Spanish.

- Asthma 101 (English): http://www.lung.org/local-content/wisconsin/documents/asthma-101-english.pdf
- Asthma 101 (Spanish): http://www.lung.org/local-content/wisconsin/documents/asthma-101-spanish.pdf

b. Asthma Action Plans

The Centers for Disease Control and Prevention (CDC) recommends that all people with asthma should have an asthma action plan (or management plan) that is written and developed with the provider to help control asthma. The plan includes daily medications to take and when to take them, how to control asthma long term, how to handle worsening asthma or attacks, and when to seek emergency

treatment. All people who care for a child should also know about their asthma action plan. The American Lung Association provides templates for adults and children in English and Spanish for Asthma Action Plans that can be easily accessed and filled out for the asthma patient:

- Asthma Action Plan (English): http://www.lung.org/assets/documents/asthma/asthma-action-plan.pdf
- Asthma Action Plan (Spanish): http://www.lung.org/assets/documents/asthma/asthma-action-plan-spanish.pdf
- Asthma Action Plan for Home/School (English): http://www.lung.org/assets/documents/asthma/asthma-action-plan-for-home.pdf
- Asthma Action Plan for Home/School (Spanish): http://www.lung.org/assets/documents/asthma/asthma-action-plan-home-school-spanish.pdf

c. Utilizing Community Health Workers
The King County Asthma Program in Seattle, Washington studied the effects of a Community Health Worker (CHW) home visit program called – Healthy Homes to utilize CHWs in providing home-based self-management asthma support. The study recruited children between the ages of 3 and 17 with poorly controlled asthma. The intervention group (n=154) received home visits by CHWs while the control group (n=179) received usual care. The CHWs provided education, support and service coordination including assessing participant knowledge of asthma, asthma control level and its challenges, self-management practices, and exposure to asthma triggers. The home visits occurred 0.5, 1.5, and 5.3 months after the initial visit. The CHWs also provided support through telephone calls, e-mails, or additional home visits if needed. The study found significant improvements in the intervention with regards to asthma symptom-free days (2.10 days more over 2 weeks) and larger reduction in urgent health care utilization events (1.31 events fewer over 12 months). Utilizing CHWs for asthma home visits can help improve health outcomes in children with uncontrolled asthma.

Application to Health Centers

- A multicomponent approach to asthma management through education and environmental assessments/changes can help children/adolescents control asthma symptoms and reduce school absences due to asthma.
- The delivery of continuous asthma education to patients can help patients understand their treatment and better adhere to therapy/medications.
- Developing an asthma action plan with patients can help them manage asthma conditions and adhere to medication schedule.
- Integrating self-management education into all aspects of asthma care is essential to bettering health outcomes for asthma patients.
    - o Asthma self-management should be repeated and reinforced at all visits.
    - o Utilizing Community Health Workers to deliver self-management education can help improve outcomes.

Asthma Treatment – References

1. Lob SH, Boer JH, Porter PG, et al. Promoting best-care practices in childhood asthma: quality improvement in community health centers. Pediatrics. 2011 Jul;128(1):20-8, from: http://pediatrics.aappublications.org/content/128/1/20.full.pdf+html.
2. Community Preventive Services Task Force website. (2008, June). Asthma control: home-based multi-trigger, multicomponent interventions. Retrieved February 27, 2014, from Community Guide: www.thecommunityguide.org/asthma/multicomponent.html.
3. Adler R, McBride J. Tools and strategies for improving asthma management. American Academy of Family Physicians. Family Practice Management. 2010 Jan-Feb;17(1):16-21, from: www.aafp.org/fpm/2010/0100/p16.html.
4. Guide to Community Preventive Services. Asthma: Home-Based Multi-Trigger, Multicomponent Environmental Interventions – Children and Adolescents with Asthma. Retrieved June 8, 2017 from https://www.thecommunityguide.org/findings/asthma-home-based-multi-trigger-multicomponent-environmental-interventions-children-and. Last Updated June 2008.
5. National Heart, Lung, and Blood Institute. (June 2012). Asthma Care Quick Reference: Diagnosing and Managing Asthma. Retrieved from https://www.nhlbi.nih.gov/health-pro/guidelines/current/asthma-guidelines/quick-reference. Accessed June 9, 2017.
6. Centers for Disease Control and Prevention. (2012, February 14). Asthma Action Plan. Retrieved from https://www.cdc.gov/asthma/actionplan.html. Accessed June 8, 2017.
7. Jonathan D. Campbell, Marissa Brooks, Patrick Hosokawa, JuneRobinson, Lin Song, James Krieger, "Community Health Worker Home Visits for Medicaid-Enrolled Children With Asthma: Effects on Asthma Outcomes and Costs", American Journal of Public Health 105, no. 11 (November 1, 2015): pp. 2366-2372.

PERFORMANCE ON HYPERTENSION CONTROL

Rationale: If there is less uncontrolled hypertension, then there will be less cardiovascular damage, fewer heart attacks, and less organ damage later in life.

UDS Performance Measure:	**HP 2020 Objective:**
"Proportion of patients born between January 1, 1931, and December 31, 1997, with diagnosed hypertension (HTN) whose blood pressure (BP) was less than 140/90 (adequate control) at the time of the last reading."	The objective for comparison is under Heart Disease and Stroke section. HDS-12 Increase the proportion of adults with hypertension whose blood pressure is under control (<140/90) to equal to or more than 61.2%.

National & State Comparison:
Since 2010, the Illinois average has fluctuated between 65% to 60%. The 50th and 25th percentiles improved in 2014; however, in 2015 all the percentiles have decreased slightly. While the majority of health centers have attained the HP 2020 target, additional efforts need to be focused on 25% of health centers who are below the target of 61.2%.

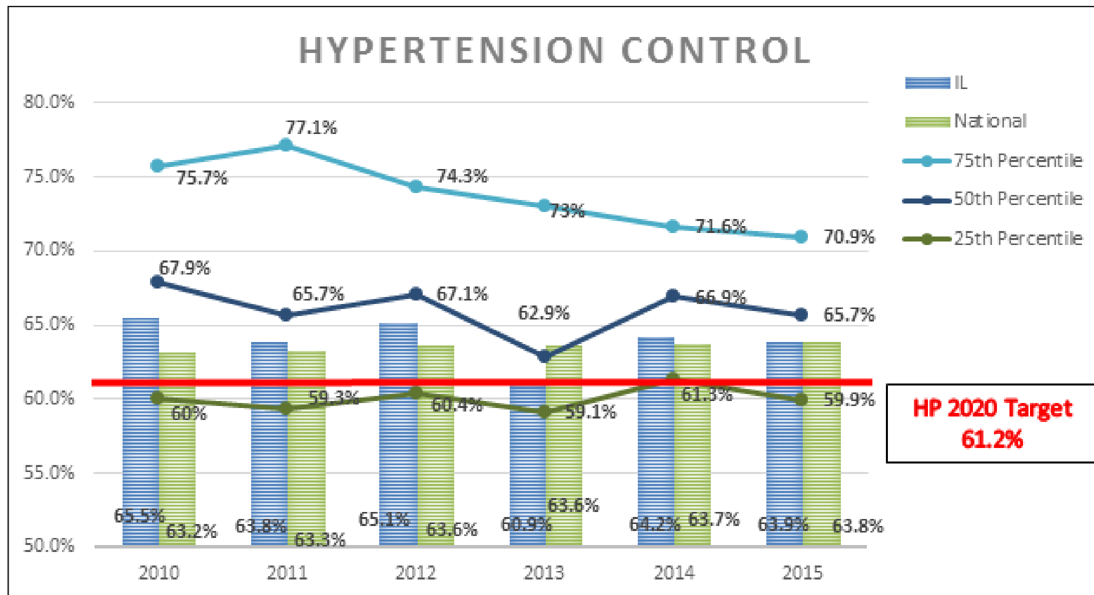


Figure B: Comparison of UDS averages (Illinois & National), HP 2020 target, and IPHCA member health center percentiles based on UDS data for Blood Pressure Control

Performance on Hypertension Control

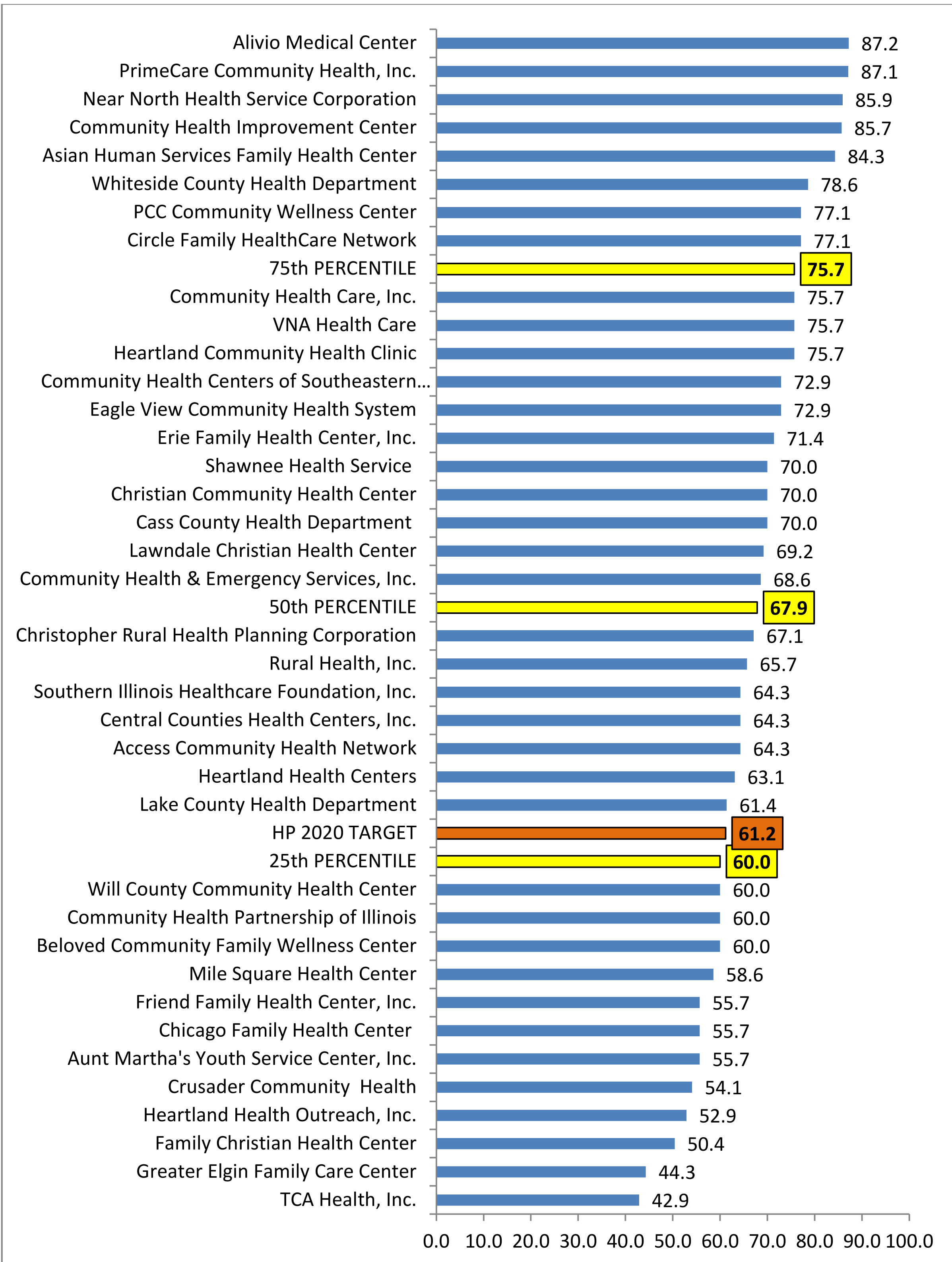


Figure B-1: 2010 Blood Pressure Control data (%) of IPHCA member health centers and their percentiles

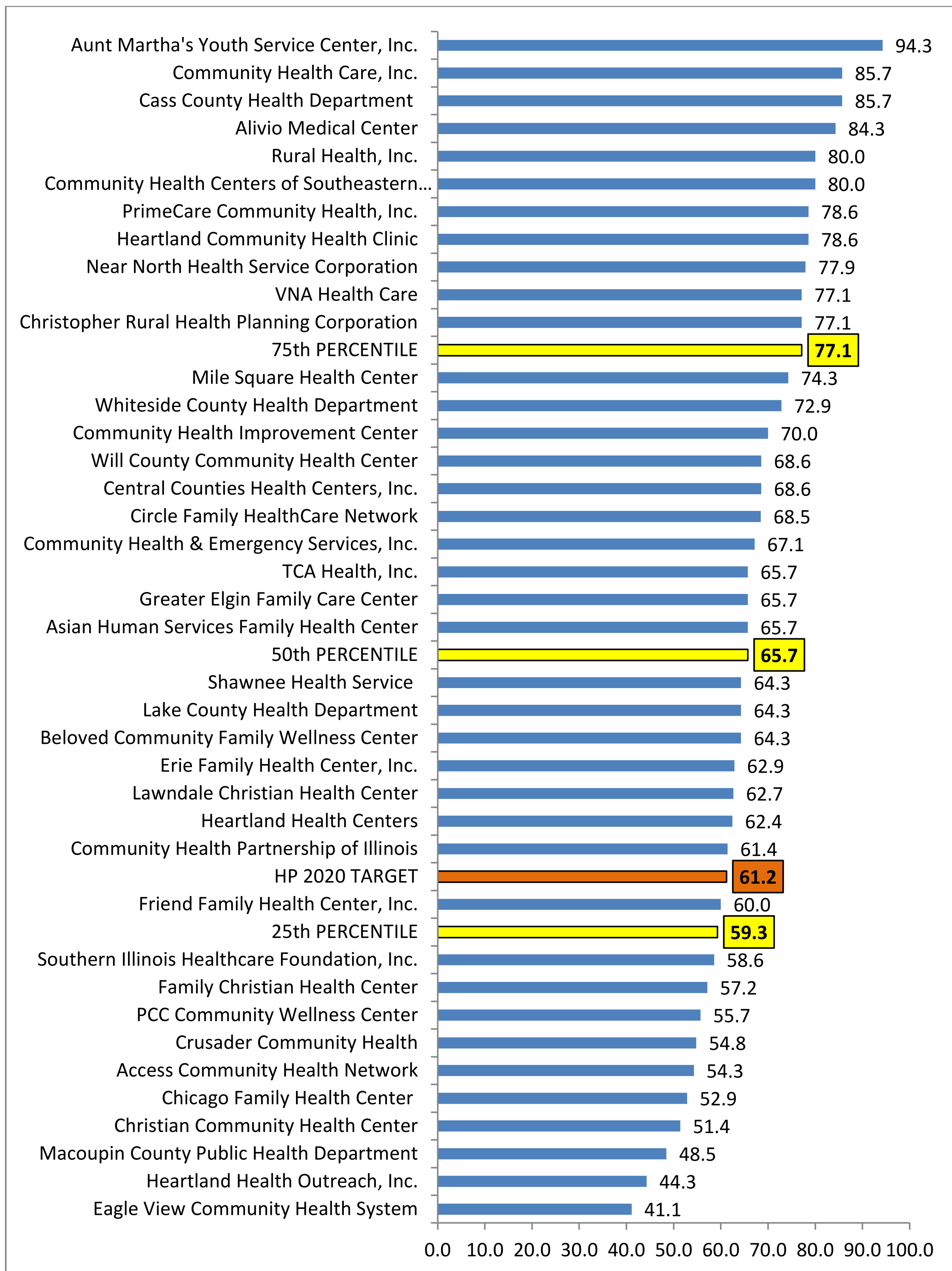


Figure B-2: 2011 Blood Pressure Control data (%) of IPHCA member health centers and their percentiles

Performance on Hypertension Control

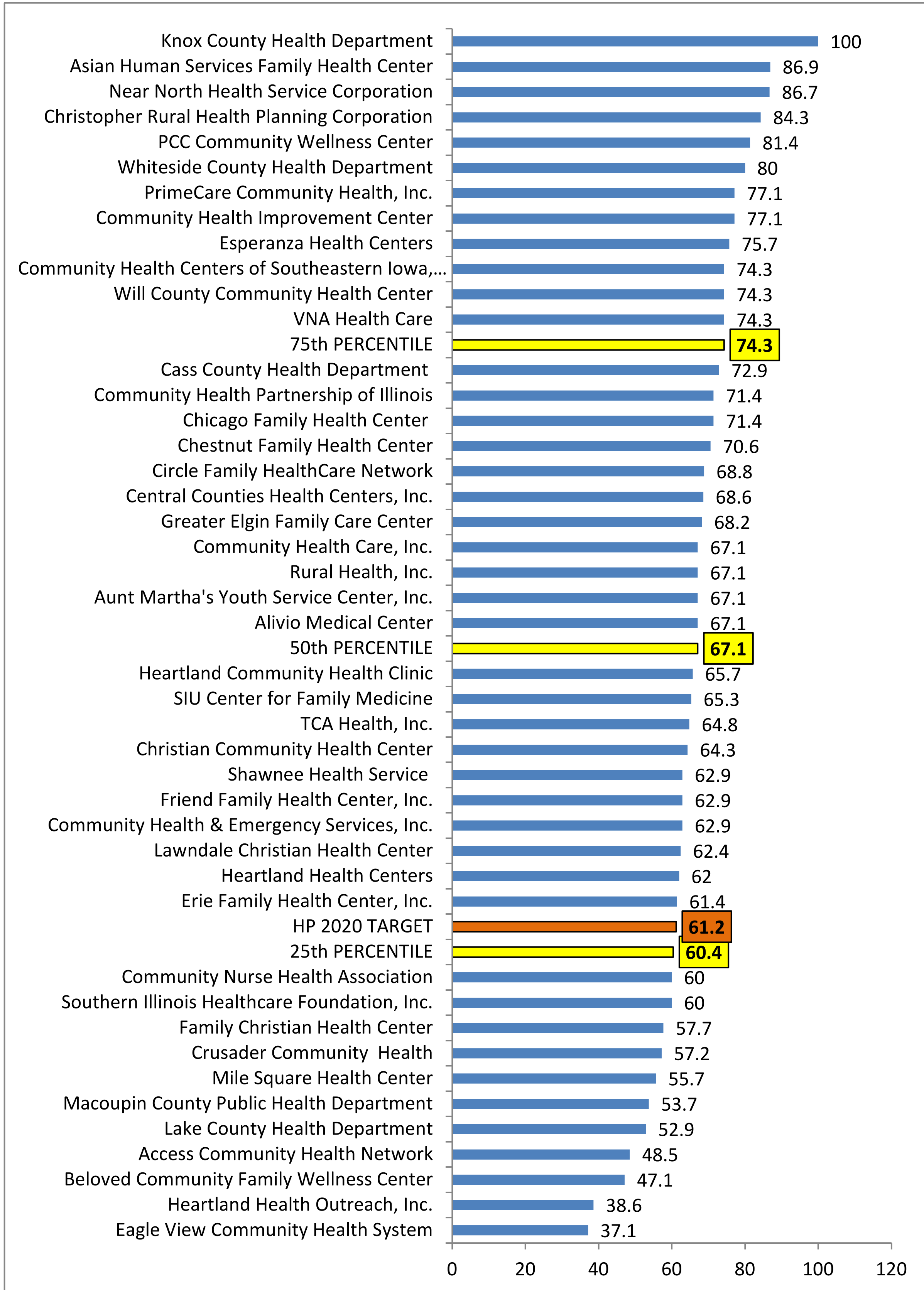


Figure B-3: 2012 Blood Pressure Control data (%) of IPHCA member health centers and their percentiles

Performance on Hypertension Control

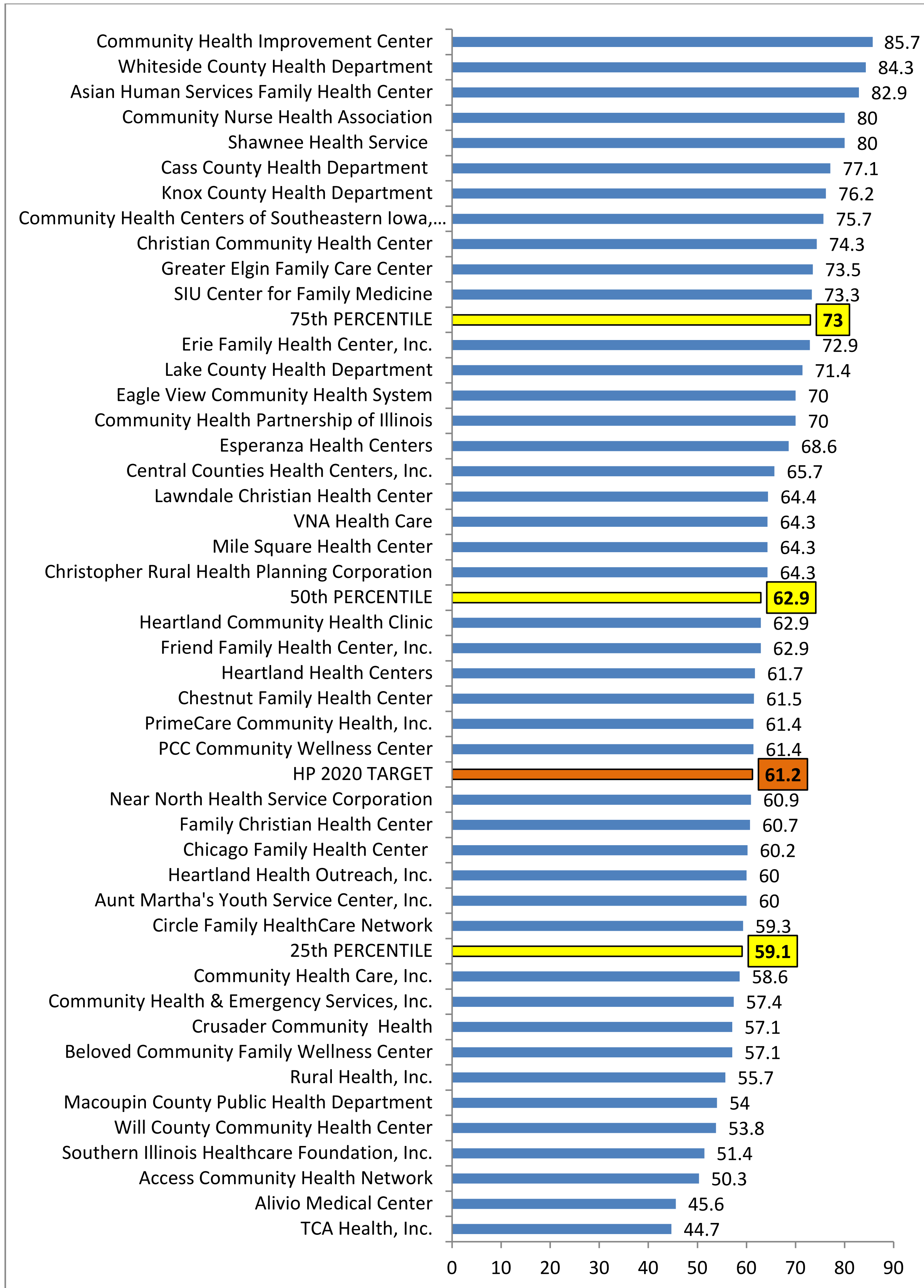


Figure B-4: 2013 Blood Pressure Control data (%) of IPHCA member health centers and their percentiles

Performance on Hypertension Control

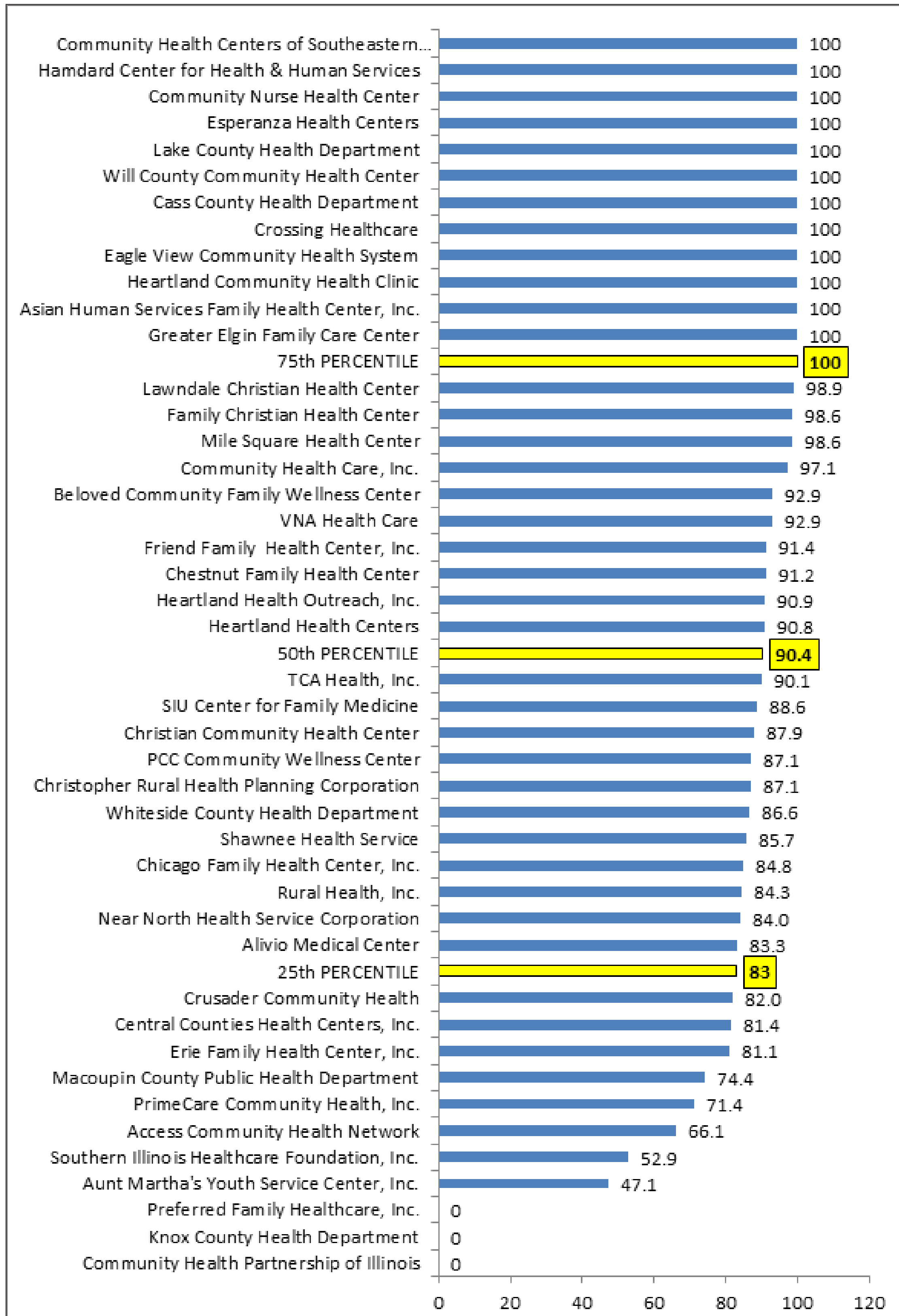


Figure B-5: 2014 Blood Pressure Control data (%) of IPHCA member health centers and their percentiles

Performance on Hypertension Control

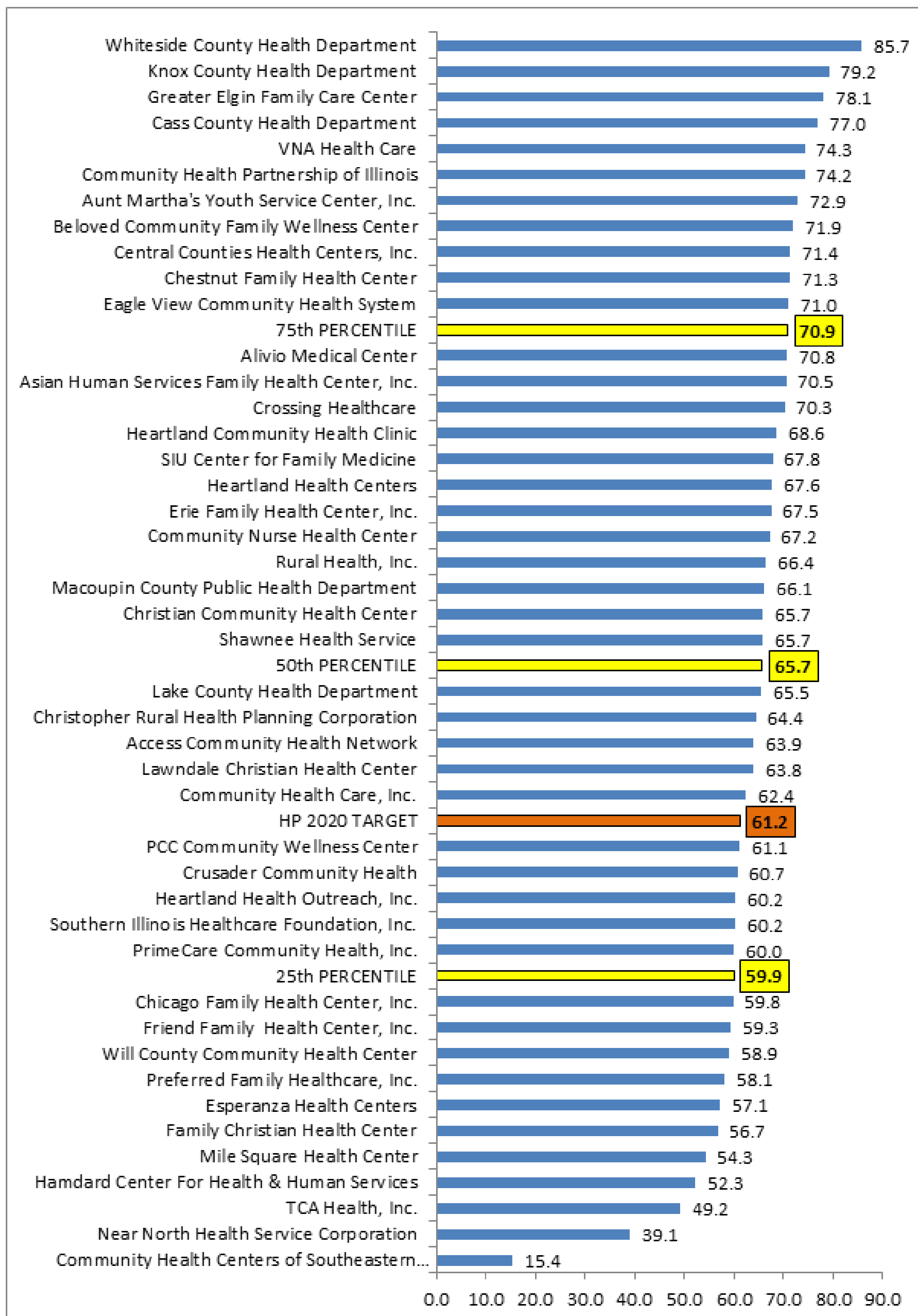


Figure B-6: 2015 Blood Pressure Control data (%) of IPHCA member health centers and their percentiles

Illinois Health Center Spotlight

1 Community Health Improvement Center – Decatur, IL (now Crossing Healthcare)

Community Health Improvement Center's (CHIC) performance on hypertension has been above the 75th percentile for three years (2010, 2012 and 2013); and, in the past four years, it has surpassed the HP 2020 target of 61.2%. In 2013, CHIC was the top performer in Illinois at 85.7%. Successful strategies identified are:

- Blood Pressure (BP) measurement and management specific strategies:
  - Training on proper techniques of blood pressure measurement was provided to staff through the Illinois Department of Public Health (IDPH). In addition, PCMH accreditation reinforces the right techniques of BP measurement.
  - If a patient has elevated blood pressure, a provider is notified, then measures are utilized to confirm if a patient has elevated BP or not. For example, if BP is elevated, patient is made to relax before re-checking with appropriate BP cuff.
  - If BP is consistently elevated for a patient, nurse visits are arranged, irrespective of them being reimbursed or not.
  - Providers document dietary recommendations for patients and provide patient education on BP levels and diet.
- Care Coordination is provided through My Healthcare Coordination. Care coordinators (social workers) check with high risk patients, monitor their BP and dietary intake.
- Grant-based strategies:
  - Association of State and Territorial Health Officials (ASTHO)-funded project was started in October 2013 and Healthy Hearts was initiated in 2012.
  - Million Hearts Initiative, part of ASTHO funding, aided in obtaining BP cuffs and referral of patients to chronic care classes through the health department.
  - With additional grant funding, care coordination efforts have been increased, care coordinators have access to patient info and thereby reinforce provider recommendations with patients.
- Regular conferences are held where the latest guidelines for hypertension control are discussed.
- Urgent Care site was started at a local hospital where patients with elevated BP are referred and given an appointment with CHIC. The appointments are met within a few days to two weeks.

2 PCC Community Wellness Center (PCC) – Oak Park, IL

PCC's performance on hypertension control has been above the HP 2020 target and the 75th percentile during 2010 and 2012 with proportion of adults with controlled blood pressure being 77.1% and 81.4% respectively. However, in 2011, the performance was low at 55.7%. In 2013, the performance was lower at 61.4%. But the consistent performance for two years validates the identification of strategies. Strategies specific to hypertension control are:

- Reminder calls to patients to take their medication and to bring them in during visits.
- Mailing letters to those patients with uncontrolled blood pressure.
- In 2011, hypertension was identified as high risk for PCC that helped hypertension indicator gain additional focus.
- EMR – multiple vital signs sheets were created to ensure a second place to document BP readings because an elevated first reading might not be clinically significant.

3 Healthy Hearts Project and Illinois Health Centers[1]

Healthy Hearts is an ongoing IPHCA project. This project aims to utilize data and integrate primary care within the community to develop a population health approach to cardiovascular care. Project features:

- Integrate the use of EHR and population health data utilizing popHealth, an open source reference implementation software service that automates the reporting of Meaningful Use (MU) quality measures.
- IDPH is working with rural Federally Qualified Health Centers (FQHCs) to implement a quality improvement dashboard tool to enable clinicians and patients to work together to better treat and manage hypertension, cholesterol, smoking cessation, and other risk factors.

- Collaborations are being built between community agencies, health departments, and primary care.
- This project is actively recruiting FQHCs that are willing to partner with local health departments and community agencies.
- Health centers can have free access to MU certified quality dashboard reporting tool, quality improvement expertise and epidemiologic expertise.[2]

The Community Guide

Evidence points toward recommendations for instituting Team Based Care (TBC) for adequate blood pressure control. Some key findings are:

- Each team includes the patient, patient's primary care provider, and other professionals such as nurses, pharmacists, dietitians, social workers, and community health workers.
- Team members provide process support and share responsibilities of hypertension care to complement the activities of primary care provider. Responsibilities include: medication management, patient follow-up, adherence, and self-management support.
- The effectiveness of TBC was greater when team members could change hypertensive medications independent of the primary care provider, or with primary care provider approval or consultation.
- For teams that included pharmacists, the median improvement in the proportion of patients with controlled blood pressure was considerably higher than the overall median increase.[3]

Some key TBC Interventions that can be followed by the team are:

- Facilitate communication and coordination of care support among various team members.
- Enhance the use of evidence-based guidelines by team members.
- Establish regular, structured follow-up mechanisms to monitor patient progress and schedule additional visits as needed.
- Actively engage patients in their own care by providing them with education about hypertension medication, adherence support (for medication and other treatments), and tools and resources for self-management (including health behavior change).

Other Strategies From Literature Search

1 Hypertension Improvement Project:

This was a randomized controlled trial that tested physician intervention versus control and/or patient intervention versus control in community-based primary care clinics. Physician intervention consisted of training on Joint National Committee (JNC) 7 guidelines and lifestyle modification for BP control. In addition, a patient evaluation and treatment algorithm was provided on a pocket-sized laminated card for quick reference. Feedback reports were provided quarterly. Patient intervention consisted of 20 weekly group sessions followed by 12 monthly telephone counseling contacts where motivational interviewing techniques were used. Telephone counseling focused on weight loss, dietary approach to stop hypertension, exercise, reduced sodium intake, and moderation of alcohol intake. Intervention was designed to promote frequent self-monitoring, feedback, goal setting, and social support. The results indicated that intensive behavioral lifestyle intervention significantly reduced BP at six months. In addition, combined physician and patient intervention had the highest impact on BP reduction where systolic blood pressure (SBP) decreased by 9.7 ± 12.7 mmHg. However, the results were not sustained at 18 months.[4]

This study indicates that in a primary care setting, intensive patient intervention might help control blood pressure. Although the reasons for not sustaining success at 18 months are not discussed, it is important to devise measures to sustain responses if new interventions are implemented and found to be successful.

2 Automated Decision Support System & Telemonitoring:

Automated Decision Support System (DSS) offers promise in ensuring guideline-based provision of care for chronic diseases. ATHENA-HTN is one such system that integrates with an existing electronic health record system to display recommendations for management of hypertension to primary care providers and was implemented in primary care clinics at three Veterans Administration medical centers.[5] ATHENA-HTN was utilized as one of the arms of intervention in a randomized trial called the Hypertension Intervention Nurse Telemedicine Study (HINTS) where:[6]

- A sample (600) of hypertensive patients with poor BP control were randomized to one of four groups:
    - Nurse-administered behavioral management intervention.
    - Nurse-administered physician directed medication management intervention using ATHENA-HTN.
    - Combined behavioral and medication management intervention.
    - Usual care.
- Behavioral Intervention was delivered that was multi-faceted and tailored consisting of 11 modules and was focused on improving self-management.
- Interventions were triggered based on home BP values transmitted via telemonitoring devices over standard telephone lines.
- RESULTS: primary outcome was BP control < 140/90 mmHg.
    - At 12 months, behavioral and medication management alone showed significant improvement. This did not exist at 18 months.
    - Most impact was seen in those with poor baseline BP control where a significant drop in SBP was seen in the combined group.

Similar to the previous study, there was a focus on self-management education and there was no sustained success at 18 months. Both the above studies underscore the importance of guideline-based provision of care and stress patient self-management. Again, designing measures to sustain results past the intervention period is very important.

3 Million Hearts® Campaign:

Million Hearts® is a national initiative that was launched by Department of Health and Human Services in September 2011 to prevent 1 million heart attacks and strokes by 2017. Here, some best practices from success stories around the country are discussed that are applicable in primary care settings. It is important to note that the practices are tailored to individual setting needs and many of these practices are in-line with The Task Force recommendations and are shared by Illinois health centers.[7]

- EHR plays a central and strategic role where its various functions across different health centers are: generating reminders to contact patients for follow-up; flagging patients with high blood pressure even when they come in for unrelated health issues; creating worksheets on which patients are overdue for blood pressure checks and whose readings are elevated; provision of monthly color-coded results to track progress; and, generating tailored educational resources for patients.
- Team-based care is a practice in line with recommendations. In one of the health centers, standing orders are implemented to empower medical assistants to independently order lab work, manage patients' medications, and request follow-up visits for patients with uncontrolled hypertension. Practices like these can free up physician time to provide necessary care.
- Medication adherence is sometimes maintained by making it convenient for patients. In one setting, they switched from 30-day to 90-day prescriptions, and some centers have even started online mail-order prescription refills. Some providers link with insurance companies to get alerts when their patients miss prescription refills.

- Patient engagement is crucial for chronic disease management. One health center gives out "health passports" to patients to record their BP readings and track progress towards their goal. Another center developed a patient wallet card that tracks blood pressure, cholesterol, and other key data. EHR generated progress reports that are easy to understand – a green check for on track and a red X indicating need for progress – are shared by providers with their patients to help them understand where they stand. Tracking progress along with patients was identified as a powerful tool to patient engagement by one provider.
- In one of the centers, patients are taught how to use home BP monitoring tools and to call in regularly with their BP readings to be incorporated into EHR.
- Setting up free clinics by nurses just for blood pressure monitoring.

In addition, action guides are an excellent resource of evidence-based strategies for clinicians and the clinic setting; available at http://millionhearts.hhs.gov/resources/action_guides.html.

Application To Health Centers

- Team-based care might be necessary for effective blood pressure control.
- Care cannot be provider-focused alone, but needs to actively engage patients through shared decision making.
- Capitalizing on EHR in all possible aspects by incorporating successful strategies might help cover all aspects of care.
- Widening the scope of delivery of care by engaging with health departments and coordinating care with other hospitals when feasible and available will prove beneficial in continuity of care that will ultimately improve population health.

Promising Practices – Hypertension Control – 2014

Illinois Health Center Strategies

1 Heartland Health Centers – Chicago, IL

Heartland Health Centers (HHC) has significantly improved performances in blood pressure control from 61.7% in 2013 to 70.3% in 2014, exceeding the HP 2020 target of 61.2%. This improvement can be attributed to system-level strategies and focused strategies:

- AmeriCorps sponsored health educators to assist patients with dietary changes and education.
- Medication reconciliation is done aggressively at every patient visit.
- Use of the Million Hearts® Initiative Cardiovascular Disease (CVD) Risk Management Tool:
  - Provider buy-in helped in all providers being trained and utilizing this tool.
  - This tool has been integrated with EHR and providers can calculate a 10-year CVD risk for patients based on risk factors in real-time and have a meaningful conversation with patients.
  - Patient education tool is also part of this.
- Medical assistants (MAs) received focused training in best practices for measuring blood pressure, including correct elevation of the arm and ensuring patient is comfortable and relaxed.
- Electronic prescribing to help ensure on-time medication refills, which helps with continuity of medication compliance.

2 Cass County Health Department – Virginia, IL

Cass County Health Department (CCHD) is an FQHC affiliated with its local health department. CCHD has consistently performed above HP2020 target and the 50th percentile in blood pressure control. In 2014, CCHD performance in blood pressure control was at 75.7%. A number of system-level strategies and focused strategies have aided in their consistent performance:

- Health center staff follow-up missed appointments diligently.
- If a new patient has elevated blood pressure, a follow-up appointment is scheduled for the next week.
- All new staff are trained in the proper technique of measuring blood pressure.

Task Force Recommendations

The Community Guide identifies recommendations utilizing community health workers and self-measured blood pressure monitoring:

Interventions Engaging Community Health Workers
• There is strong evidence of effectiveness for interventions that engage community health workers in a team-based care model to improve blood pressure and cholesterol in patients at increased risk for CVD.[8] • There is sufficient evidence for the effectiveness of engaging community health workers as health educators or as outreach, enrollment, and information agents.
Self-Measured Blood Pressure Monitoring Interventions for Improved Blood Pressure Control
• When used alone - there is sufficient evidence of effectiveness in self-measured blood pressure monitoring interventions for managing hypertension: o In these interventions, patients are trained in self-measuring blood pressure monitoring and receive the tools to do so. o Patients then share blood pressure readings with providers during clinical visits, by telephone, or electronically. o The provider can then assess the measurements and determine the best treatment for blood pressure control.[9]
• When combined with additional support, there is strong evidence that self-measuring blood pressure interventions will effectively improve blood pressure results: o Additional support can include one or more of the following: ▪ One-on-one patient counseling on health behavior modifications (i.e. diet and exercise) as well as on medications. ▪ Education sessions on high blood pressure self-management. ▪ Access to electronic or web-based tools, which can include electronic requests for medication refills, text or e-mail reminders for measuring blood pressure or attending appointments, and directly messaging healthcare providers.[10]

Other Strategies

1 Million Hearts® Resources

Million Hearts® is a national initiative launched in September 2011 by the Department of Health and Human Services to prevent one million heart attacks and strokes by 2017. To achieve this goal, the initiative has a multi-pronged action plan, one of which focuses on blood pressure control. On its website, a plethora of resources and tools are available, some of which are highlighted below:

a. Hypertension Treatment Protocols: Health centers can develop their own treatment protocol using a template provided by the initiative. (Appendix C)

b. Million Hearts ® Champions: In 2014, the initiative recognized 30 health care organizations, including seven Federally Qualified Health Centers (FQHCs), as 2014 Hypertension Control Champions. These health centers were successful in controlling blood pressure in at least 70% of their hypertensive patients.[11] The following are successful strategies from recognized FQHCs:

i. Denver Health Community Health Services, Denver, CO
- Established a hypertension clinic for patients with uncontrolled blood pressure. This clinic allowed for patients to meet with a nurse practitioner or a pharmacist.
- Promoted self-measured blood pressure monitoring and provided feedback for patients with complex conditions.
- Formed partnerships with community organizations. One such partnership included the Center for African American Health, which provided self-management support and education to African Americans – a population with an increased risk for hypertension.

ii. Family Health Centers of San Diego, San Diego, CA
- Provided free blood pressure checks and patient appointment reminders.
- Established a clinical quality department to analyze data for improvement.
- Measured 21 clinical outcomes and focused on those that fell below the national average.
- Shared hypertension metrics with providers in order to encourage progress.

c. Million Hearts® Insight from Stakeholders
Key stakeholders in the Million Hearts® initiative also provided their insight on effective protocols in achieving success in blood pressure control.[12] Some of their suggested strategies include:

- Team-Based Care
  - o Make hypertension control a priority .
  - o Use expertise of every health care team member.
  - o Include patient and family as key members of the team.
  - o Conduct pre-visit planning, which includes ensuring patients bring their home readings and allowing patients to ask questions such as those concerning blood pressure monitoring, medications, and challenges with diet and exercise.
  - o Learn about and recommend community resources to patients.
  - o Look for opportunities to check in with patients between visits and adjust medication when hypertension is not controlled.
- Professional & Patient Education
  - o Provide health care team with evidence-based protocols.
  - o Train the health care team on how to use protocol.
  - o Offer ongoing training to staff on how to measure blood pressure accurately.
  - o Calibrate and inspect equipment regularly to ensure correct measurements.
  - o Emphasize using home blood pressure monitoring.
  - o Incorporate self-management into patient education and follow-up visits.

d. Undiagnosed Hypertension: The Initiative also provides guidelines to identify and treat undiagnosed hypertensives, which can be found at http://millionhearts.hhs.gov/tools-protocols/hiding-plain-sight/index.html

2 M.A.P. to Improve Blood Pressure Control

The American Medical Association and Johns Hopkins Medicine have collaborated with clinical care teams from ten practices and health centers to form the "Improving Health Outcomes: Blood Pressure" initiative.[13] Together, they created the "M.A.P. to improve blood pressure control". The initiative utilizes evidence-based protocols and a team-based approach to also improve hypertension control.

- M.A.P. (Appendix D – M.A.P. Checklist)
- Measure blood pressure accurately
  - o If the office blood pressure is ≥140/90 mm Hg, confirm measurements.
- Act rapidly to manage uncontrolled blood pressures

  - o It is important to use evidence-based protocols to treat uncontrolled blood pressure.
- Partner with patients, families and communities
  - o Empower patients to control their blood pressure.
  - o By implementing these steps, the initiative hopes to improve blood pressure measurement accuracy, a reliable diagnosis, and efficient treatment.
- M.A.P. at Northwestern Medicine™
  Northwestern Medicine™ Evanston is one of the organizations that has integrated the M.A.P. framework and began a self-measured blood pressure (SMBP) monitoring program:[14]
  - o Physicians in the practice decided which patients would benefit from SMBP and the assigned medical assistant (MA) then worked with them.
  - o MA had received training on how to use SMBP monitors and how to educate patients about using the monitors.
  - o The patient was provided educational materials including a reference flyer on using the monitor, a checklist for proper monitor use, and a SMBP flow sheet to track blood pressure readings.
  - o MA collected the flow sheets at physician visits and recorded average results for the physician to track BP readings and address treatment if needed.

As a result of this program, there was a 4% increase in the number of patients reaching their goal blood pressure of <140/90 mm Hg over a 12-month period.

3 Culturally Competent Disease Management for Hypertensive African Americans

African Americans are more likely to have hypertension and less likely than other racial/ethnic groups to control the condition. Therefore, a special emphasis is placed on reaching out to this target group. One disease management program tested by Aetna combined blood pressure monitoring with culturally appropriate counseling and education for a 12 month period.[15] The randomized control trial compared a control group (n=318), which received a self-monitoring blood pressure tool with instructions on how to use it, while the experimental group (n=320) additionally received lifestyle counseling and education that targeted African Americans. The results of this study found strong evidence in significantly improving self-monitoring and blood pressure control. The participants of the culturally-competent management program were 46% more likely to monitor and report blood pressure at least once a week. Participants of the program achieved a significantly lower level of systolic blood pressure than the control group (123.6 mmHg vs. 126.7 mmHg).

Application to Health Centers

- Utilizing tools and strategies outlined in the Million Hearts® campaign can help health centers implement improvement measures for blood pressure control within their practices.
  - o Team-based Care is imperative to efficiently implementing blood pressure control protocols.
  - o Both patients and providers should be educated on accurate measurement readings, self-management tools, lifestyle modifications for hypertension, and prescribed treatment options.
- Health centers can use the M.A.P. framework to get more accurate BP readings and respond rapidly with evidence-based guidelines.
- Patient populations that are hard to reach might need more focused and culturally-tailored interventions.
- Implementing system-level strategies in addition to evidence-based algorithms provides the healthcare team and patients with the tools and protocols needed to effectively monitor and manage blood pressure control.

Hypertension Control – References

1. Illinois Department of Public Health Web site. Healthy Hearts. Retrieved from: www.idph.state.il.us/healthyhearts/. Accessed April 3, 2014.
2. Anton, Sandy and Howland, Julia. “Healthy Hearts: Transforming Communities through the Integration of Public Health and primary Care.” IPHCA, Medical Directors Roundtable 2014. Chicago, IL. March 26, 2014. Quality Improvement Presentation.
3. Community Preventive Services Task Force website. (2013, December). Cardiovascular Disease Prevention and Control: Team-Based Care to Improve Blood Pressure Control. Retrieved February 27, 2014, from www.thecommunityguide.org/cvd/teambasedcare.html.
4. Svetkey LP, Pollak KI, Yancy WS, et al. Hypertension Improvement Project: Randomized Trial of Quality Improvement for Physicians and Lifestyle Modification for Patients. Hypertension. 2009; 54:1226-1233. Retrieved from: www.ncbi.nlm.nih.gov/pmc/articles/PMC2784648/.
5. Goldstein MK, Coleman RW, Tu SW, et al. Translating Research into Practice: Organizational Issues in Implementing Automated Decision Support for Hypertension in Three Medical Centers. J Am Med Inform Assoc. Sep-Oct 2004; 11(5):368-376.
6. Bosworth HB, Powers BJ, Olsen MK, et al. Home Blood Pressure Management and Improved Blood Pressure Control: Results From a Randomized Controlled Trial. Arch Intern Med. 2011; 171(13): 1173-1180. Retrieved from: http://archinte.jamanetwork.com/article.aspx?articleid=1106079.
7. Stokowski LA. The Millions Hearts Campaign: best practices for primary care. Winning strategies. Medscape. Aug 11 2014. Accessed from: www.medscape.com/viewarticle/828420_4.
8. Guide to Community Preventive Services. Cardiovascular disease prevention and control: interventions engaging community health workers. Retrieved from: www.thecommunityguide.org/cvd/CHW.html. Last updated: 11/13/2015
9. Guide to Community Preventive Services. Cardiovascular disease prevention and control: self-measured blood pressure monitoring interventions for improved blood pressure control – when used alone.www.thecommunityguide.org/cvd/SMBP-alone.html. Last updated 04/18/2016.
10. Guide to Community Preventive Services. Cardiovascular disease prevention and control: self-measured blood pressure monitoring interventions for improved blood pressure control – when combined with additional support. Retrieved from: www.thecommunityguide.org/cvd/SMBP-additional.html. Last updated 04/18/2016.
11. Department of Health and Human Services (U.S.) Million Hearts. 2014 Million Hearts® Hypertension Control Champions: Federally Qualified Health Centers. Retrieved May 10, 2016, from http://millionhearts.hhs.gov/files/HTN_Champions_SS_FQHC_2014.pdf
12. Centers for Disease Control and Prevention. Elements Associated with Effective Adoption and Use of a Protocol: Insights from Key Stakeholders. Atlanta, GA: US Dept of Health and Human Services; 2014. Retrieved from http://millionhearts.hhs.gov/files/MH_Protocol_Implementation.pdf
13. Rakotz, M. Improving blood pressure control. Steps Forward. American Medical Association. June 2015. Retrieved from: https://www.stepsforward.org/Static/images/modules/8/downloadable/Improving_Blood_Pressure_Control.pdf
14. Brennan, T., Spettell, C., Villagra, V., Ofili, E., McMahill-Walraven, C., Lowy, EJ, … Mayberry, R. (2010). Disease Management to Promote Blood Pressure Control Among African Americans. Population Health Management, 13(2), 65–72.
15. Final Update Summary: Abnormal Blood Glucose and Type 2 Diabetes Mellitus: Screening. U.S. Preventive Services Task Force. December 2015. Retrieved from: www.uspreventiveservicestaskforce.org/Page/Document/UpdateSummaryFinal/screening-for-abnormal-blood-glucose-and-type-2-diabetes

Performance on Diabetes Control

Rationale: If there is less uncontrolled diabetes then there will be fewer amputations, less blindness and less organ damage later in life.

UDS Performance Measure:	HP 2020 Objective:
"Proportion of adult patients born between January 1, 1940, and December 31, 1996, with a diagnosis of Type I or Type II diabetes, whose hemoglobin A1c (HbA1c) was less than or equal to 9% at the time of the last reading in the measurement year."	The objective for comparison is located under Diabetes section. *D-5.1 Reduce the proportion of persons with diabetes with an HbA1c value greater than 9% to 16.1%.[1] Here, this is rewritten as - To increase the proportion of diabetic population with HbA1c value less than or equal to 9% to 83.9%.*

National & State Comparison:
Similar to blood pressure control, the average performances have been relatively stable over the years. However, there was a slight fall in performance at both State and National levels in 2013. In 2014, Illinois' average improved slightly. Although all the percentiles have increased, the 2012 levels have not been met. Much improvement is called for to make progress towards HP 2020 target.

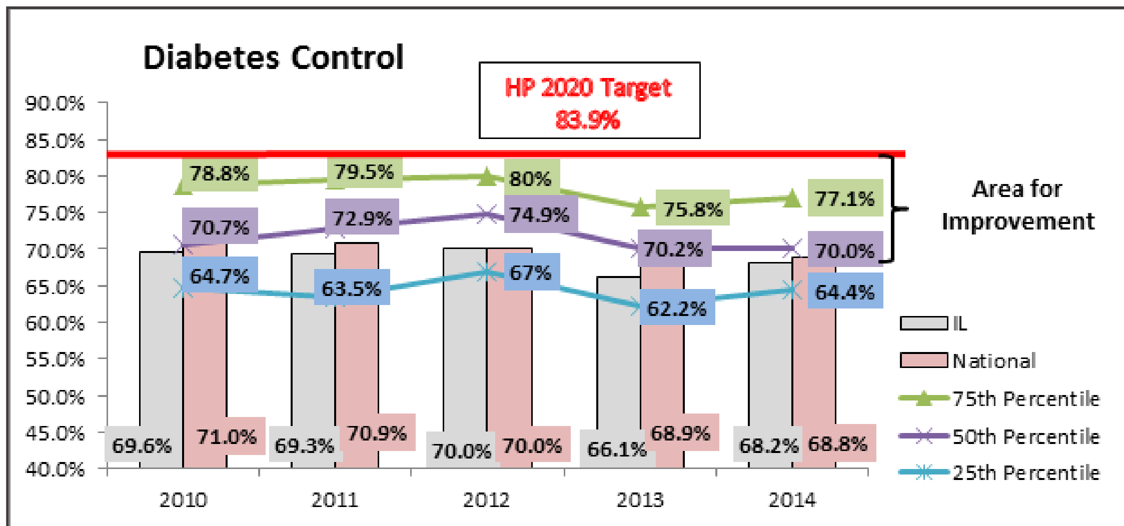


Figure C: Comparison of UDS averages (Illinois & National), HP 2020 target, and IPHCA member health center percentiles based on UDS data for Diabetes Control.

Performance on Diabetes Control

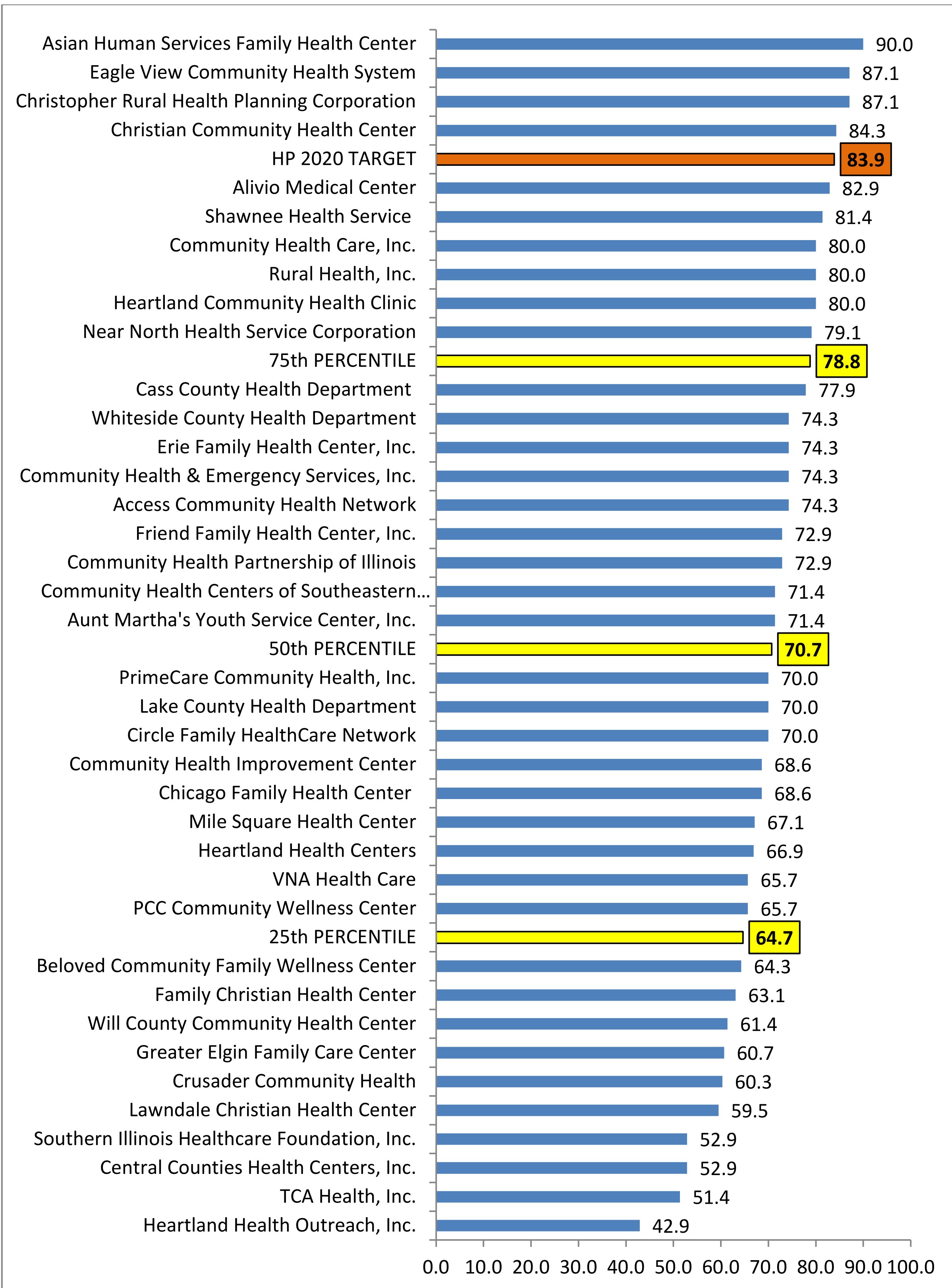


Figure C-1: 2010 Diabetes Control data (%) of IPHCA member health centers and their percentiles

Performance on Diabetes Control

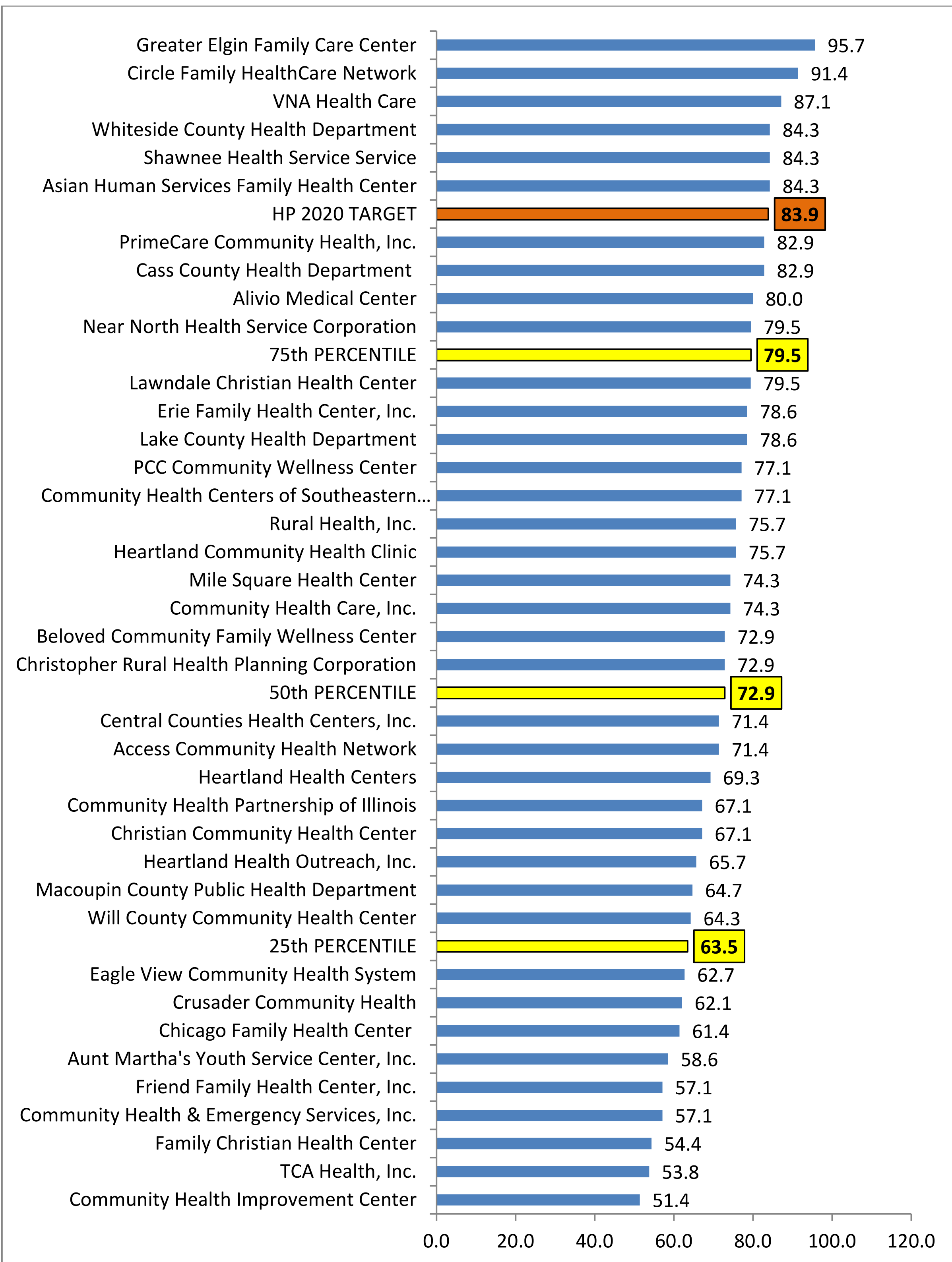


Figure C-2: 2011 Diabetes Control data (%) of IPHCA member health centers and their percentiles

Performance on Diabetes Control

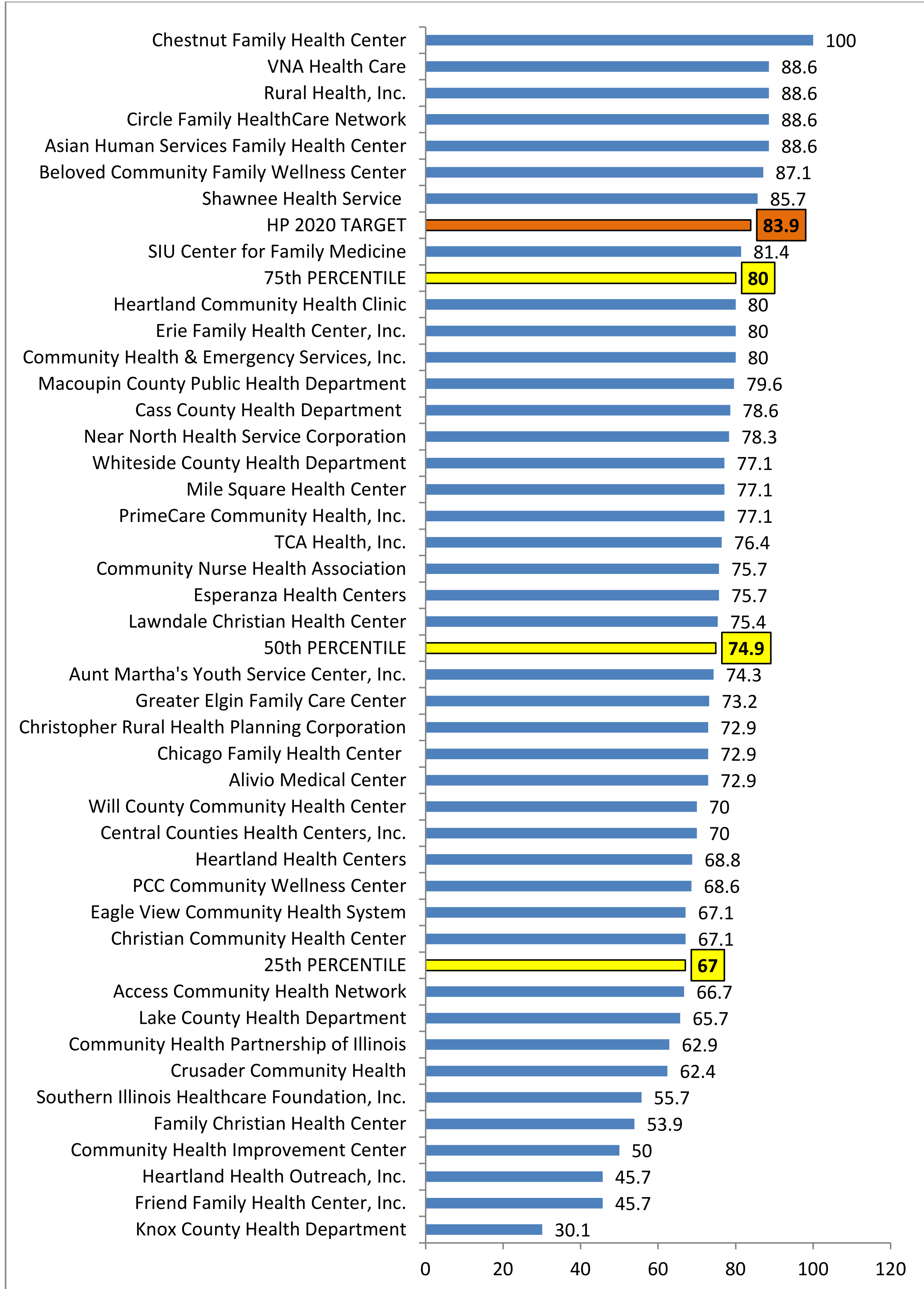


Figure C-3: 2012 Diabetes Control data (%) of IPHCA member health centers and their percentiles

Performance on Diabetes Control

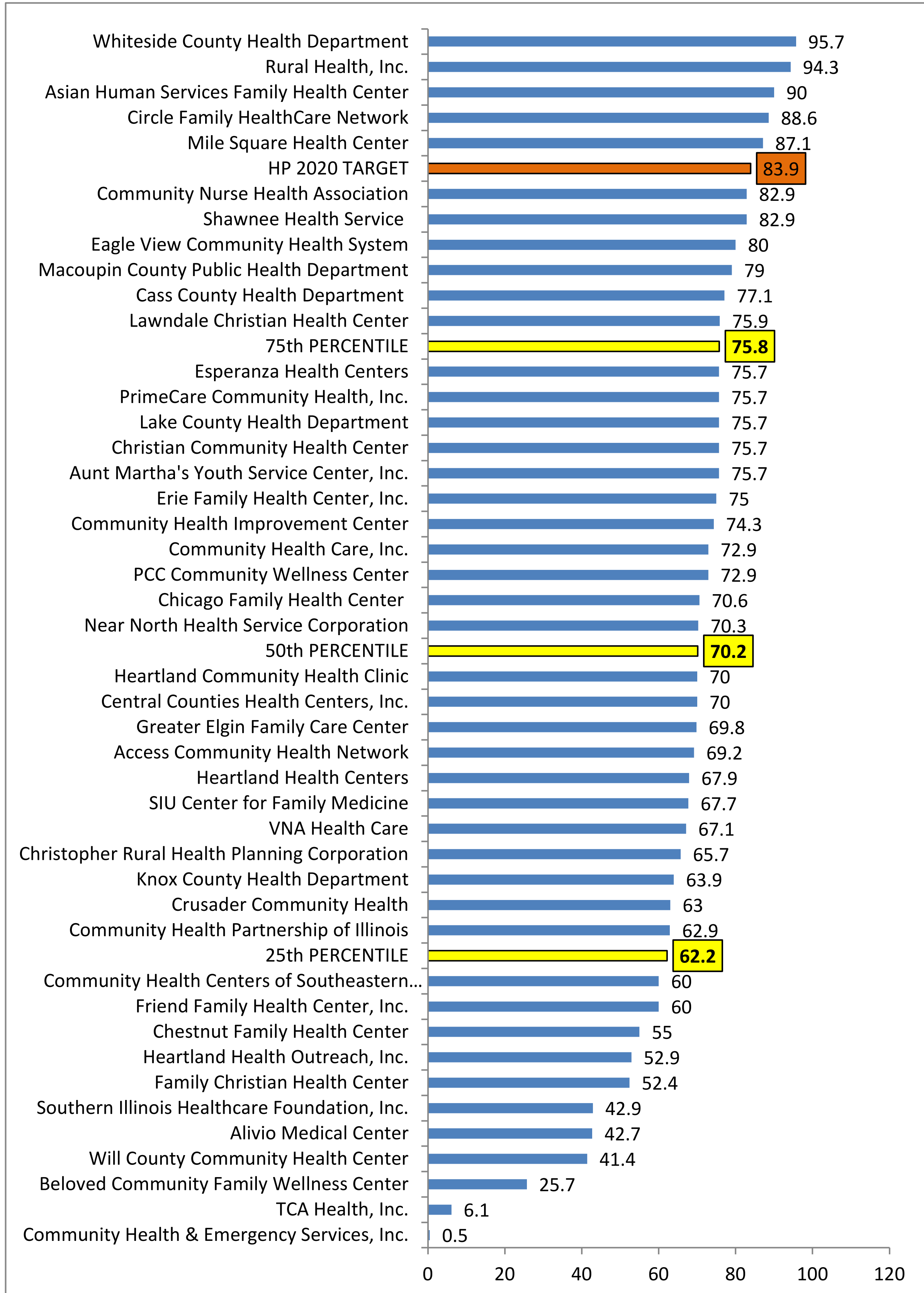


Figure C-4: 2013 Diabetes Control data (%) of IPHCA member health centers and their percentiles

Performance on Diabetes Control

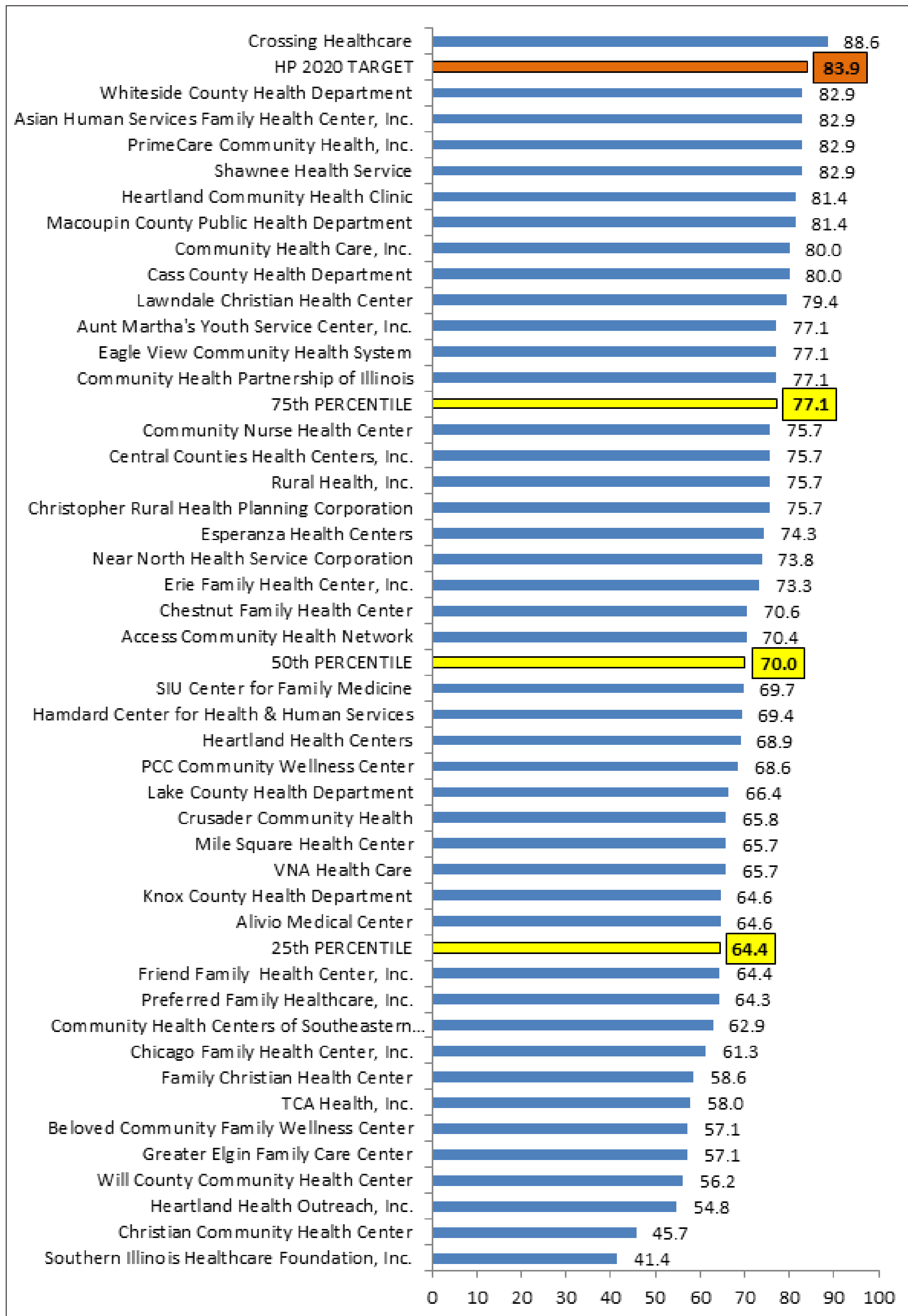


Figure C-5: 2014 Diabetes control data (%) of IPHCA member health centers and their percentiles

Illinois Health Center Spotlight

1 Asian Human Services Family Health Center (AHSFHC) – Chicago, IL

AHSFHC has been one of the top performers in diabetes control with levels consistently above the HP 2020 target since 2010. Strategies specific to diabetes control that are in practice are:

- Team-based approach – a stable team consisting of physician, medical assistant and nurse. Retaining the same physician and nurse for each patient is stressed upon.
- Provision of guideline-oriented care.
- Mandatory Continuous Medical Education (CME) on diabetes and hypertension for all physicians.
- Physician-driven health education – physicians help patients understand their lab reports and remember their medication. Physician-driven health education was decided upon when five years ago, separate health education classes were conducted and tried for a year, but there was consistent patient no-show. During the physician QI meeting, it was decided upon to provide physician-led health education.
- Access to medication - Provision of some medication for free or some at a subsidized rate (includes insulin) by collaborations with pharmaceutical companies for at least two years. Access is also ensured by the availability of generic medicines.
- IT strategies –
  - o EHR – Reminder charts for HbA1c, foot exam, eye exams are generated through EHR based on American Family Physician (AFP) guidelines. Health education print outs for each patient are generated providing advice of what can be done at home.
  - o Using free smart phone apps by some patients to communicate self-monitored blood glucose levels directly with doctors.
- Medicine refill maintained – when patients miss an appointment, medicines are still refilled to ensure continuation of medication.

2 Rural Health, Inc. – Anna, IL

Rural Health's performance on diabetes control has been consistently above the 75th percentile and it was also one of the top performers in 2012 and 2013. Diabetes control specific strategies are:

- A separate flow sheet is utilized, which serves as a tool for not only diabetic patients but also asthmatic patients.
- Flow sheet consists of list of items which serve as a standing order for nurses - a list of items that can be asked at every visit, six months or annually. List of items include reminders for HbA1c, if not done recently, referrals (ophthalmology), and patient goals.
- Self-Management: There is a diabetic group meeting held once a month led by a health educator and nurse. Patients are notified of the meeting and come on their own. Extensive education regarding meal plans, following physician orders, physical activity, etc., are carried out in the meeting. In addition, glucose monitors are given for free to uninsured patients.

3 Shawnee Health Service – Carterville, IL

Shawnee Health Service's performance on diabetes control has been consistently above the 75th percentile in the past four years with its performance exceeding the HP 2020 target in 2011 at 84.3%. Some of their strategies identified are:

- Presence of a Diabetes Collaborative.
- Nutritionist who is also a certified diabetes educator.

4 VNA Health Care – Aurora, IL

VNA Health Care's performance in diabetes control was above the HP 2020 target in 2011 and 2012, at 87.1% and 88.6% respectively. One of their successful strategies has been the creation of A1c dashboard. The dashboard signals the progress of patient outcome by indicating in red if HbA1c is above seven and drawing attention to take immediate action. The tool also allows a one-click referral with endocrinologist or physician.

The Community Guide

The Task Force recommends provision of Diabetes Self-Management Education (DSME) in community gatherings for adults with Type 2 diabetes and at home for children and adolescents with Type 1 diabetes where evidence has shown that glycemic control improved significantly for both the groups.[1]

Other Strategies From Literature Search

1 Patient Empowerment Intervention:

Researchers at the University of Chicago, in collaboration with community health centers and community partners, pilot tested an observational cohort study for six months with 21 participants in an FQHC. Intervention testing was culturally targeted and was focused on self-care and shared decision making. Results indicated an improvement in diabetes self-efficacy, self-care behaviors, HbA1c and HDL cholesterol. This intervention is a part of multi-targeted intervention that consists of four key components: patient empowerment, health provider training, health systems change, and community partnerships.[2] More detail on this intervention can be obtained from www.southsidediabetes.com.

2 Quality Improvement Methodology In Designing A Self-Management Education Program:

This study, funded by the Robert Wood Johnson Foundation's (RWJF) Diabetes Initiative, took place at Community Health Center, Inc., the largest FQHC in Connecticut. A comprehensive program to provide self-management education to a largely Hispanic population of diabetic patients (488) was developed and tested. One of the QI methodologies, the Plan, Do, Study, Act (PDSA) cycle, was utilized in development of the program that was implemented over a period of four years. The goal was to create a culturally targeted program and to also address the extremely high prevalence of comorbid depression in patients with diabetes. Although the detailed analysis is pending, the preliminary results look promising with a drop in HbA1c in addition to a significant drop in LDL cholesterol and blood pressure control, and visible clinical improvements in the depressed group that equaled those in the non-depressed group, suggesting that such patients can effectively engage in self-management and improve their diabetes control.[3]

Application To Health Centers

- Diabetes self-management education that is culturally-tailored is the cornerstone of effective delivery of patient education.
- Self-management education delivered in a group is effective for adults with type 2 diabetes.
- Flow charts will ensure the appropriate delivery of care for diabetic patients.
- Diabetic patients with depression should be as actively involved in self-management as those patients without depression.
- Leadership buy-in, especially in providing resources for training, plays a crucial role in ensuring success.
- Reminder calls help reduce no-show rates and ensure continuity of care for chronic disease patients.

Illinois Health Center Strategies

1 Lawndale Christian Health Center – Chicago, IL

Lawndale Christian Health Center (LCHC) has significantly improved performance in diabetes control. Between 2010 and 2011, the health center increased performance measures from 59.5% to 79.5%. In 2014, Lawndale was above the 75th percentile with 79.4% of its diabetic patients achieving control. LCHC was awarded the HRSA Health Center Quality Leader award. In addition to some of the system-level strategies, some of the focused strategies around diabetes control include:

- LCHC organizes group visits for diabetic patients called "Centering Diabetes".
- Education classes by certified diabetes educator that are linguistically tailored to patients.
- Diabetes Dashboard in EMR, which facilitates care along practice guidelines. With this, the medical assistant (MA) facilitates pre-visit HbA1c, foot exam and microalbumin screening.
- A part-time endocrinologist was hired to help with managing complex and challenging patients.
- DM Registry tool –This software tool filters and targets outreach to DM patients by care team staff.
- Population Health Management – Through Medical Home Network (MHN) for County Care patients, Complex Care Coordinators educate patients, create care plans, and follow up with patients monthly (high risk) and quarterly (medium risk).

2 Cass County Health Department – Virginia, IL

Cass County Health Department (CCHD) is an FQHC affiliated with its local health department. CCHD has increasingly performed above the 50th percentile since 2010. More recently, CCHD diabetes control performance was above the 75th percentile as it increased from 77.1% in 2013 to 80.0% in 2014. CCHD was also awarded the Health Center Quality Leader award last year. Both system-level strategies and focused strategies have helped CCHD achieve a high performance:

- Quality assurance nurse monitors patient reports.
- Chronic disease self-management education is provided by health educator from the health center.
- Linguistically appropriate services are provided:
  - o CCHD's region has seen an influx of refugee populations who speak French, and therefore the health center has hired two language interpreters, French and Spanish.

3 Heartland Community Health Clinic – Peoria, IL

Heartland Community Health Clinic (HCHC) has significantly improved performance in diabetes control. In 2013, HCHC performed just below the 50th percentile at 70.0%, but increased performance to well above the 75th percentile at 81.4% in 2014. In addition to their unique system-level strategies of having a Task Force and a special report, some of their focused strategies are:

- Through United Way grant funding, two Diabetes Educators (DE) were hired.
  - o If diabetic patients have HbA1c ≥ 8, they will consult DEs once a week or once a month on self-management. This ensures a continuity of treatment through consultation with DEs in between provider visits.

Task Force Recommendations

As of October 2015, the U.S. Preventive Services Task Force (USPSTF) recommends screening for abnormal blood glucose and type 2 diabetes mellitus to adults aged 40 to 70 years old who are overweight and obese.[4] This should be conducted as part of the cardiovascular risk assessment and clinicians should offer or refer patients with abnormal blood glucose to intensive behavioral counseling interventions to promote a healthful diet and physical activity.

The Community Guide also recommends a combined diet and physical activity promotion program to prevent type 2 diabetes for people at increased risk. This is based on strong evidence that shows the effectiveness of such programs that often include weight loss goals, individual or group sessions (or both) about diet and exercise, meetings with a trained counselor, and individually tailored diet or exercise plans (or both).[5]

Other Strategies from Literature Search

1 Diabetes Self-Management Education

a. Diabetes Self-Management Education & Support

A joint statement released by the American Diabetes Association, the American Association of Diabetes Educators, and the Academy of Nutrition and Dietetics explains the importance of diabetes self-management education and support (DSMES) in patients with type 2 diabetes.[6] DSMES refers to not only being educated on the knowledge and skill of self-care for diabetes, but also having the continuous support to sustain the learned behaviors. DSMES has been shown to improve HbA1c by as much as 1% in people with type 2 diabetes and has been shown to reduce the onset and/or advancement of diabetes complication. DSMES can lead to improved quality of life and behavior modifications using a patient-centered approach. The diabetes education algorithm (Appendix E) is a useful resource to reference as it utilizes evidence-based guidelines in referring patients to DSMES with type 2 diabetes.

b. Diabetes Educator Teams

Researchers and clinicians at Vidant Health and East Carolina University collaborated with partners in order to conduct a randomized control trial in Bertie and Hertford counties located in rural North Carolina. The study was conducted between May 2008 and April 2010 and compared African American patients (n=368) with diabetes participating in the intervention program to a control group (n=359) that provided regular primary care.[7] The program included the following changes to the care management system in three rural clinics from medically underserved areas that were based on a patient-centered medical home model:

- A rotating team of trained and certified diabetes educators (a nurse, pharmacist, and dietitian) visited each of the three sites to provide coaching and education.
- All newly diagnosed diabetes patients were automatically scheduled an education/coaching visit as a standing order.
- All patients received culturally appropriate self-management education on the first visit and follow-up visits were customized to the needs of the patient.
- The team of educators also worked with primary care physicians to assess medication effectiveness.
- The program also implemented quality improvement meetings (initially, weekly, and now monthly) to review patient data and make improvements to care protocols if needed.
- Reports from a common EHR and diabetes registry allowed for measurement of the clinics against diabetes care standards outlined by the National Committee for Quality Assurance.

The results of the study show significant improvement in glycemic control, lipids, and blood pressure in African American patients with diabetes. A significantly greater proportion of patients achieved target glucose level (7.5 or below) in the intervention group in comparison to the control group (68% vs. 59%).

c. New Beginnings: A Discussion Guide for Living Well with Diabetes

HHS/Centers for Disease Control and Prevention (CDC), National Diabetes Education Program (NDEP) have released a new guide that will help support group leaders (diabetes educators, health educators, community health workers, peer counselors, or anyone with training and experience leading support groups and group education) facilitate discussions about the emotional aspects of living with diabetes. The discussion guide contains tools and questions to lead a small group discussion with people who have diabetes and their family members.[8]

It has eight modules and tips and a session plan template. The eight modules are:

- Module 1. Overview: Living Well With Diabetes
- Module 2. Know Your ABCs
- Module 3. Coping with Emotions
- Module 4. Overcoming Self-Doubt
- Module 5. Managing Stress
- Module 6. Problem Solving and Emergency Preparedness
- Module 7. Children and Family: How Can They Understand?
- Module 8. Working With Your Doctor

2 Utilizing Community Health Workers

a. Health Empowerment Lifestyle Program

Through the Department of Health and Human Services Office of Minority Health Patient Centered Care Collaboration (PCCC) initiative, the University of Illinois-Chicago (UIC) implemented the Health Empowerment Lifestyle Program (HELP). HELP is a culturally tailored program that educates minority populations in different Chicago clinics about self-management of diabetes, hypertension, or obesity.[9] Participating clinics utilized trained patient navigators to recruit eligible patients and also encouraged participation. A trained community health worker (CHW) led nine weekly two-hour classes in the clinics providing culturally and linguistically tailored education to African American and Latino communities on monitoring key health indicators, benefits of managing diet and exercise, and understanding risk factors. After the nine-week session, patient navigators and CHW recommended resources in the community to continue patient support. The results of a 2013 pilot study indicate that, after one nine-week session in three South Side Chicago clinics, participants (n=38) displayed a significant increase in knowledge of diabetes, overweight/obesity, and hypertension. Participants also displayed improved self-monitoring and self-management behaviors including more monitoring of blood pressure and blood glucose, better dietary practices, more physical activity, more foot care, and better medication adherence.

b. Community Health Workers in Primary Care

The Baylor Health Care System in Dallas, Texas created a five year program known as the Diabetes Equity Project (DEP) with support from a Merck Company Foundation grant. This program utilized trained, bilingual community health workers (CHWs) to provide culturally tailored diabetes self-management and education in five community clinics that catered to a predominantly Hispanic population.[10] The CHWs worked under the primary care providers and reported to nurse managers. They assisted the patients with self-management education, linked patients to community resources, and provided coaching support. Preliminary analysis of the data indicates that patients had a statistically significant reduction in HbA1c levels between baseline and one year follow-up. Interviews from participating providers in the study show the primary care providers all indicated that CHWs were able to assess patient barriers and communicate to the provider. Interviews with patients in the study also confirmed that the CHWs improved patient activation, leading to better glycemic control.

3 Diabetes Prevention Programs

a. Improving Diabetes Care and Outcomes on the South Side of Chicago

This is a seven year project funded by Merck Company Foundation through the Alliance to Reduce Disparities in Diabetes, and the National Institute of Health.[11] Dr. Monica Peek and Dr. Marshall Chin of the University of Chicago are at the forefront of this project that involves collaborations with patients, providers, clinics, and the community to improve health outcomes in the south side of Chicago. The project works with six clinics, including community health centers, in a predominantly African American community. Preliminary results show significant improvement in patients' HbA1c levels, diabetes self-efficacy and diabetes self-management behaviors. The project involves all collaborators to target four main components:

i. Patient education and empowerment
ii. Provider workshops
iii. Clinic system redesign
iv. Community collaborations

Additional resources for educating diabetic patients can be found under 'Resources for Educating Patients with Diabetes' as well as 'Diabetes Care Scales for Healthcare Providers' at http://chicagodiabetesresearch.org/resources/.

b. Prevent Diabetes STAT: Screen, Test, Act – Today™

The Centers for Disease Control and Prevention (CDC) and the American Medical Association (AMA) created a toolkit outlining a guide to screen, test and act today by referring patients to diabetes prevention programs.[12] Specifically, M.A.P. (Measure, Act, Partner) is a tool to incorporate diabetes prevention at the health center level and will serve as a referral guide (Appendix F) and is available for preventing Type 2 Diabetes, which helps providers and the healthcare team to screen.

Application to Health Centers

- Ensuring culturally tailored self-management initiatives in diabetes control are essential to bring awareness and education to different populations by utilizing evidence-based recommendations and tools.
- Incorporating diabetes educators or community health workers on the healthcare team allows for improved care coordination and patient-centered care.
  - Establishing a specific role to provide diabetes education and continuous support/follow-up allows for better patient engagement and self-management care. To sustain the role of diabetes educators, existing RNs can take on the role of diabetes educators.
- In addition to provider-to-patient education, follow-up support, and referrals diabetes prevention programs allow for better self-management of diabetes control.
  - Creating partnerships and links in the community to resources help patients overcome barriers to ensuring healthy diet and exercise.
- Registries are an effective means to target and track diabetic patients and ensuring follow-up of care.

Diabetes Control – References

1. Community Preventive Services Task Force website. (2002). Diabetes Prevention and Control: Self-Management Education. Retrieved January 22, 2014, from Guide to Community Preventive Services. Retrieved from: www.thecommunityguide.org/diabetes/selfmgmteducation.html.
2. Peek ME, Harmon SA, Scott SJ et al. Culturally tailoring patient education and communication skills training to empower African-Americans with diabetes. Translational Behavioral Medicine. 2012;2: 296-308. Retrieved from: www.ncbi.nlm.nih.gov/pmc/articles/PMC3717912/.
3. Anderson D, Christison-Lagay J. (2008). Diabetes Self-Management in a Community Health Center: Improving Health Behaviors and Clinical Outcomes for Underserved Patients. Clinical Diabetes. 2008; 26(1): 22-27. Accessible from: http://clinical.diabetesjournals.org/content/26/1/22.full.pdf+html.
4. Final Update Summary: Abnormal Blood Glucose and Type 2 Diabetes Mellitus: Screening. U.S. Preventive Services Task Force. December 2015. Retrieved from: www.uspreventiveservicestaskforce.org/Page/Document/UpdateSummaryFinal/screening-for-abnormal-blood-glucose-and-type-2-diabetes
5. Guide to Community Preventive Services. Diabetes prevention and control: combined diet and physical activity promotion programs to prevent type 2 diabetes among people at increased risk. Retrieved from: www.thecommunityguide.org/diabetes/combineddietandpa.html. Last updated 11/09/2015.
6. Powers, MA., Bardsley, J., Cypress, M., Duker, P., Funnell, M., Fischi, AH., Maryniuk, MD., Siminerio, L., and Vivian, E. (2015). Diabetes Self-management Education and Support in Type 2 Diabetes: A Joint Position Statement of the American Diabetes Association, the American Association of Diabetes Educators and the Academy of Nutrition and Dietetics. Diabetes Care 2015 July; 38(7): 1372-1382. Retrieved from: http://care.diabetesjournals.org/content/38/7/1372.
7. AHRQ Health Care Innovations Exchange. Teams of Diabetes Educators Regularly Visit Rural Clinics to Coach African-American Patients, Leading to Better Glycemic Control and Potential Cost Savings (Vidant Health, East Carolina University Department of Family Medicine). In: AHRQ Health Care Innovations Exchange [Web site]. Rockville (MD): [cited 2016 June 1]. Retrieved from: https://innovations.ahrq.gov/profiles/teams-diabetes-educators-regularly-visit-rural-clinics-coach-african-american-patients.
8. Centers for Disease Control and Prevention. (June, 2016). New Beginnings: A discussion Guide for Living Well with Diabetes. Retrieved June 29, 2016, retrieved from: www.cdc.gov/diabetes/ndep/toolkits/new-beginnings.html.
9. AHRQ Health Care Innovations Exchange. Innovation Profile/Attempt: Culturally Tailored Chronic Disease Education Program Improves African American Patients' Self-Management Behaviors, Blood Pressure and Blood Glucose Control, and Quality of Life (University of Illinois-Chicago School of Public Health). In: AHRQ Health Care Innovations Exchange [Web Site]. Rockville (MD): [cited 2015 May 25]. Retrieved from: https://innovations.ahrq.gov/profiles/culturally-tailored-chronic-disease-education-program-improves-african-american-patients.
10. Collinsworth, A., Vulimiri, M., Snead, C., and Walton, J. (2014). Community Health Workers in Primary Care Practice: Redesigning Health Care Delivery Systems to Extend and Improve Diabetes Care in Underserved Populations. Health Promotion Practice, 15(2), 51S-61S. doi: 10.1177/1524839914539961
11. Chicago Center for Diabetes Translation Research. (2013). Improving Diabetes Care and Outcomes on the South Side of Chicago. Retrieved from: http://chicagodiabetesresearch.org/research/south-side-diabetes/.
12. American Medical Association and Centers for Disease Control and Prevention. Prevent Diabetes STAT. Retrieved from: www.stepsforward.org/modules/prevent-type-2-diabetes. Accessed 6/1/2016.

Performance on Uncontrolled Diabetes

Rationale: If there is less uncontrolled diabetes then there will be fewer amputations, less blindness, and less organ damage later in life.

UDS Performance Measure:	HP 2020 Objective:
"Proportion of adult patients born between January 1, 1941, and December 31, 1997 with a diagnosis of Type I or Type II diabetes, whose most recent hemoglobin A1c (HbA1c) during the measurement year was greater than 9%, or was missing a result, or if an HbA1c test was not done during the measurement year."	*The objective for comparison is located under Diabetes section.* *D-5.1 Reduce the proportion of persons with diabetes with an HbA1c value greater than 9% to 16.1%.*

National & State Comparison:

Uncontrolled diabetes measure has improved since 2013 for Illinois as reflected in the average. While the 25th percentile has improved, the 75th and 50th percentile reflect a slight increase in uncontrolled diabetes rates. Much improvement is called for to make a progress towards HP 2020 target of 16.1%.

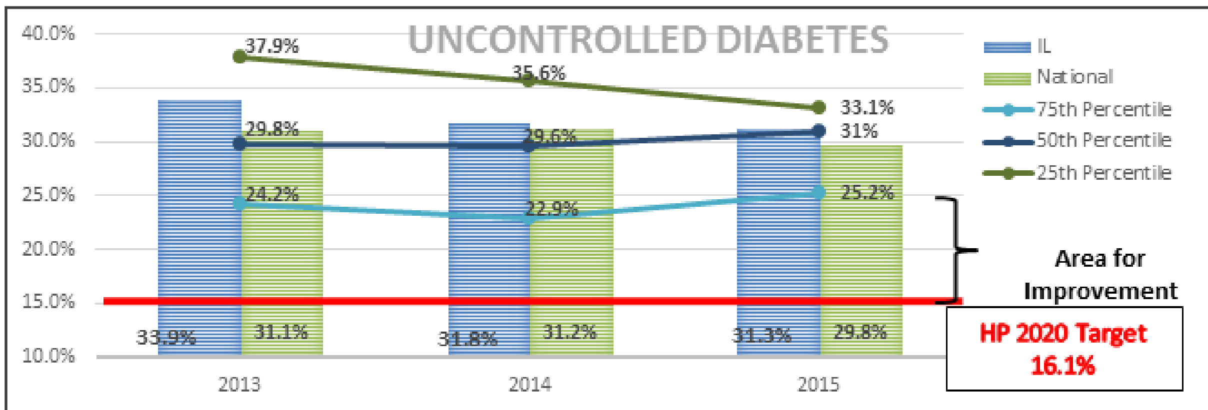


Figure C-1: Comparison of UDS averages (Illinois & National), HP 2020 target, and IPHCA member health center percentiles based on UDS data for Uncontrolled Diabetes

Performance on Uncontrolled Diabetes

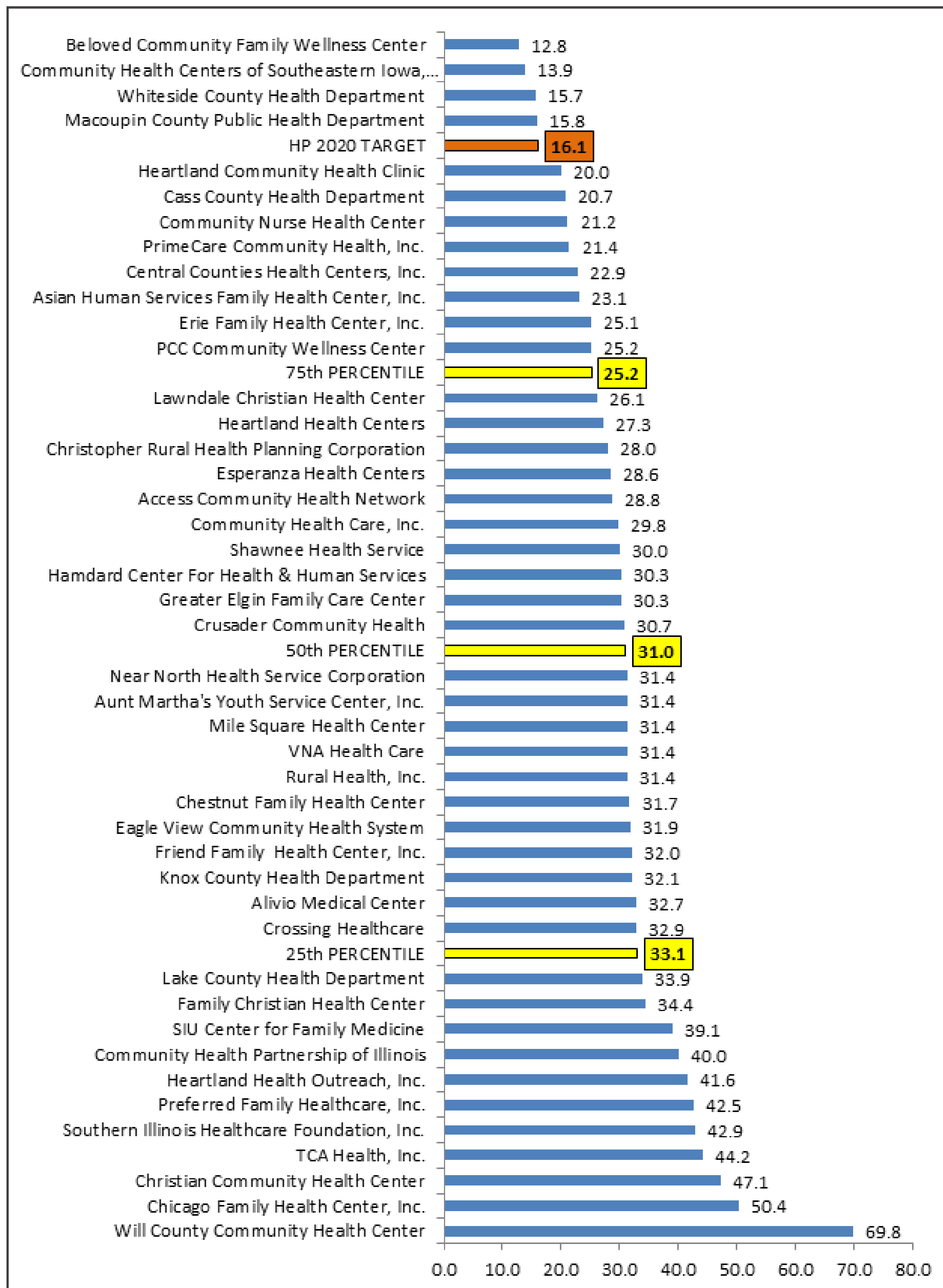


Figure 15.2: 2015 Uncontrolled Diabetes data (%) of IPHCA member health centers and their percentiles

Member Health Center Spotlight

1 Esperanza Health Centers – Chicago, IL

Esperanza Health Centers served over 18,500 patients in 2015. Esperanza performed above the 50th percentile in 2015 for the uncontrolled diabetes measure. Esperanza faces multiple challenges when addressing diabetes for their patient population. These include uninsured patients who find it difficult to maintain continuity of care, and demographics of patient population that has a high prevalence of diabetes. In spite of the challenges, Esperanza targets diabetic patients with multiple strategies and innovative approaches:

1. Targeting uninsured patients - safety for uninsured patients is maintained so patients feel confident to return.
2. Follow-up – automated "call campaign" is conducted through EHR to reach out to those patients who have not visited for two months. For patients not reached by automated call campaign, care coordinator conducts personalized outreach calls.
3. Registry maintenance of diabetic patients – both new and existing diabetic patients are tracked through registry and appropriate action is taken where needed.
4. Team-Based Care (TBC) approach – if diabetic patients are no-shows, this triggers the assigned care coordinator and call center for outreach to reschedule appointments right away.
5. Patient Engagement:
   - Group diabetes visits are conducted frequently.
   - Nurse-led diabetes education classes are provided weekly.
   - Esperanza is partnering with Working Bikes (http://www.workingbikes.org/) to initiate a diabetic-specific bike group program by the end of the year to give patients with diabetes an opportunity to exercise.

2 PrimeCare Community Health, Inc. – Chicago, IL

PrimeCare Community Health, Inc. served more than 21,000 patients according to 2015 UDS data. PrimeCare performed above the 75th percentile at 21.4% in 2015. Several initiatives have helped PrimeCare reach reduced rates of uncontrolled diabetes in recent years:

- MyChart sends patients messages when diabetic patients are due for follow-up.
- EHR sends alerts of best practices and health maintenance to providers for diabetic patients needing eye exams, A1C tests, nephropathy tests, and foot exams.
- Through the Medical Home Network (MHN), PrimeCare developed a diabetes care management program. This program included nurses and care managers assigned to a panel of patients to help develop self-management goals and then conduct follow-up after 30 days. Nurses and care managers were trained in motivational interviewing to assist patients with meeting their self-management goals.
- Participation in a pilot program with Presence Health enabled PrimeCare to utilize a new cloud based system called Livongo. This program enrolled about 250 patients with A1C levels over 8 and provided the patients with blood glucose monitors that sent results directly to the cloud system. Patients with results that read too high or too low received a phone call from a certified diabetes educator. This pilot program did see some reductions in A1C levels.
- In 2016, PrimeCare collaborated with EMMI Solutions on an initiative to reach out to diabetic patients:
  - A robocall prompted messages over phone to a generated list of diabetic patients who had not been seen by a provider for over one year. These messages alerted patients to the importance of follow-up and also allowed patients to schedule appointments.
- Up till September 2016, a Nurse Practitioner (bilingual in Polish) conducted diabetes group visits with Polish speaking patients.

3 VNA Health Care – Aurora, IL

VNA Health Care served over 60,000 patients in 2015. Between 2014 and 2015, VNA reduced uncontrolled diabetes measure from 34.3% to 31.4%. The following strategies have aided VNA in improving this performance measure:

- Utilization of the American Association of Diabetes Educators (AADE) Curriculum: All diabetic patients with A1C of 9 or above are identified utilizing EMR reports. The Wellness Team reaches out to recruit and enroll patients in the AADE evidence based curriculum, "Seven Self Care Behaviors." Patients are stratified based on A1c levels for a nurse or provider home-based encounter.

- o Care Coordination staff oversee this process.
- o In 2016, there was a total of 1,122 wellness class visits with 321 unduplicated patients.
- o Each class allows for exercise and a cooking demonstration.
- Providers utilize self-management education plans from the EMR.
- o Diabetes monitoring supplies have been automated in the EMR and in the self-management screen section of the EMR and link to the orders screen.
- Clinical Pharmacist and Clinical Dietician – These diabetes educators provide one-on-one medication and nutrition counseling. The wellness nurse also provides educational sessions for patients on glucometer use and insulin injections.
- All health center clinical staff/nurses gave new diabetics an information packet that were standardized and aligns with the wellness AADE curriculum in 2016.

Additionally, engagement with diabetic patient population occurs through the following strategies:

- Offering of diabetes, heart health, wellness, weight loss, family wellness and maternal wellness classes that allow patients to flow into any of the classes as their schedule permits. Evening and weekend classes are also offered. This flexibility has been key to engaging patients.
- Patients are also engaged through personal phone calls, which is important in the enrollment and follow-up for no-show calls process.
- o "Robo- calling" campaigns are utilized to remind patients to return to get their A1C quarterly checks.
- VNA provided a local farmer's market fruit and vegetable stand and will continue to this summer at their main campus.
- o This aligns with their Fresh First USDA Grant and Wellness classes.
- o Patients come to the class, watch the food demonstration, try the food samples, and then go the market to shop the same recipe items with coupons made available through the grant.

Task Force Recommendations

The Community Guide recommends intensive lifestyle interventions for patients with type 2 diabetes which involves ongoing counseling and guidance for the patient to change their diet or physical activity level. This is based on sufficient evidence that shows the effectiveness of such programs that monitor individualized diet, exercise, or both, and provide ongoing support for a period of six months or longer.

In addition, the Community Guide recommends team-based care to control type 2 diabetes as evidence shows team-based care improves patients' blood glucose (A1C levels), blood pressure, and lipid levels. These interventions also increase the proportion of patients who reach their target blood glucose, blood pressure, and lipid levels. Team-based care includes the patient, the patient's primary care provider, and one or more other health professionals. Working together, the team helps the patients

- Get appropriate medical tests and examinations
- Get medications to manage and control risk factors
- Self-manage their health care and adhere to treatment
- Make health behavior and lifestyle choices
- Improve overall quality of life and prevent diabetes-related complications

The Community Guide also recommends interventions involving community health workers to improve glycemic (blood sugar) control and weight-related outcomes for those at an increased risk for type 2 diabetes. This is based on some evidence which shows such diabetes prevention interventions may decrease rates of progression to type 2 diabetes.

- One example of effective CHWs is from a 2011 study of a CHW-led diabetes self-management program targeting Latino and African American patients with type 2 diabetes in Detroit, MI. The six month intervention involved 164 participants randomized to a CHW intervention or delayed control (they received the intervention six months later). The CHWs delivered diabetes self-management education, healthy lifestyle training, and social support through culturally-tailored group classes, one-on-one goal setting sessions, and accompaniment to one clinic visit.

At six month follow-up, the intervention group improved HbA1c levels from 8.6% to 7.8% while the control group reported no change in HbA1c levels.

Other Strategies From Literature Search

1 Engaging Patients in Diabetes Management

a. Implementing Diabetes Group Visits in CHCs

Researchers at the University of Chicago's Center for Diabetes Translation Research in collaboration with the Midwest Clinicians' Network have developed a pilot study focused around diabetes group visit intervention in CHCs. Six CHCs have been recruited to implement the intervention at seven different sites from Nebraska, Illinois, Michigan, Indiana, and Ohio. The first two-day training session was provided to CHC staff and providers in March 2015 and the second in September 2016. This study is based on preliminary research which aims to achieve the following:

- Develop, conduct, and evaluate a training program for CHC staff to implement diabetes group visits
- Assess implementation of diabetes group visits
- Assess impact of diabetes group visits on diabetes process measures, patient outcomes, and patient satisfaction in comparison to control group at one year follow-up.

b. Promoting Behavioral Changes in Prediabetes Patients

The National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) identified resources for healthcare staff to talk to patients to about their prediabetes diagnosis by engaging them in behavioral changes. These communication strategies aim to raise awareness for patients in making lifestyle changes by ensuring they understand the prediabetes diagnosis. Taking this opportunity to engage patients in making changes can help delay or prevent progression to type 2 diabetes. The following three resources are available to educate and engage patients in prediabetes conversations:

- DOs and DON'Ts for Initial Conversation about Prediabetes - This one-page resource (Appendix C) lists recommended communication strategies for providers in having the first conversation about prediabetes with their patient.
- Use the Teach-Back Method - This resource provides a video on how to perform the teach-back method – which is a technique to ensure patients understand the diagnosis and prevention plan. The video can be accessed from: https://www.youtube.com/embed/IKxjmpD7vfY?autoplay=1
- Support Your Patients with Behavior Change Strategies - This resource includes strategies to make and sustain lifestyle changes for prediabetes. The following behavioral strategies are outlined:
  - o Shared decision-making – helps patients understand diagnosis and be active in making informed choices.
  - o Motivational interviewing – uses patient-centered counseling to address problems and allows the patient to strengthen their motivation for change.
  - o 5 A's behavioral change model – aims to improve self-management support through the '5 A's' (Assess, Advise, Agree, Assist, and Arrange).
  - o Resources can be accessed from https://www.niddk.nih.gov/health-information/health-communication-programs/ndep/health-care-professionals/game-plan/talk-with-patients/behavior-change-strategies/Pages/index.aspx

c. Improving Health Literacy Through Multimedia

Northwestern University Feinberg School of Medicine has developed an educational tool dedicated to health literacy for vulnerable patient populations. This multimedia tool was the recipient of the national 2009 American Public Health Association's award for 'outstanding electronic patient education materials'. The 'Diabetes Series' includes seven modules aimed at teaching patients of all literacy and education levels about the causes and effects of diabetes and how to adapt to lifestyle changes. The tool covers the following module topics:

- What is Diabetes?
- The Ups and Downs of Blood Sugar
- Checking Your Blood Sugar
- Protect Your Eyes
- Protect Your Feet
- Know Your Blood Pressure
- Know Your Cholesterol

Each module includes a short video and printable PDF in English and Spanish as well as an Educator Guide that includes lesson plans on how to utilize each video with handouts and how to help patients set self-management goals. The 'Diabetes Series' is available for access at http://cch.northwestern.edu/edtools/diabetes.htm.

2 Culturally-Tailored Education

a. Project Dulce

In collaboration with San Diego County, FQHC's, and San Diego State University (SDSU), the Scripps Whittier Diabetes Institute (SWDI) developed 'Project Dulce.' This care management program is recognized by the American Diabetes Association (ADA) and tailors to an underserved and ethnically diverse population with type 2 diabetes. 'Project Dulce' utilizes nurse care managers and peer educators to provide a culturally appropriate, diabetes self-management education (DSME) through peer-based learning and group discussions. Trained laypersons lead as peer educators to promote self-management and health behavior change specifically focused on the community's cultural beliefs and present barriers/challenges. Studies around 'Project Dulce' have shown positive results on clinical, behavioral, and cost outcomes. Specifically, one study recruited 207 Mexican-American patients from FQHCs in San Diego County and assigned either the control group – who received standard diabetes care, or the intervention – who received peer education through Project Dulce. The results show that the 'Project Dulce' group exhibited significant improvements from baseline to four month follow-up in absolute HbA1C levels.

b. Mentorship From Demographically Similar Peers

A study at the Philadelphia Veterans Affairs Medical Center utilized peer mentoring to help improve glycemic control for African American veterans with diabetes. The recruited peer mentors were also African American veterans and matched to mentees by sex, race, and gender. Each mentor received one-on-one training that centered on motivational interviewing and how to assess the patient's progress. Over a 6-month period, mentors telephoned (or met with) patients at least once a week to address diabetes-related challenges and to also speak on their own experiences. The study found with strong evidence that the program with peer mentors significantly decreased blood glucose levels in patients from 9.8% to 8.7% (n=38) in comparison to the control group (n=39) who dropped from 9.9% to 9.8%. Sharing a culturally similar background helped patients relate and seek advice from mentors.

3 Care Coordination

a. Team-Based Care at Clinica Family Health Services

Clinica Family Health Services is a community health center (CHC) near Denver, Colorado catering to a largely uninsured Hispanic population at four different sites. In order to better the care coordination, the CHC has formed primary care teams called "pods." Sites include two, three, or four pods depending on the patient population. Each pod consists of three primary care clinicians, medical assistants, nurse team manager (RN or LPN) and all pods at a given site share a case manager, social worker, office manager, financial screener, and registered dietitian. The following services are provided through these roles:

- Primary care clinicians: Physicians, NPs, or PAs each have their own panel of patients to maximize the aim of seeing the same clinician at each visit. Computer generated registries, reminder checks for diabetes management, and status of complications enable providers to improve care.
- RNs and LPNs: Mid-level providers coordinate team activities, provide health education, and oversee medical assistants. Specifically, they provide diabetes education and self-management by allowing patients to choose their own goals.
- Dietician: The organization has a registered dietician to help train RNs and LPNs in addition to supporting group visits for diabetic patients and providing counseling.
- Medical Assistants: In addition to pre-visit evaluations and screenings, MAs work with pod receptionists to manage disease registries and overdue tests.
- Referral case manager: High school graduates trained by the CHC to arrange appointments and negotiate payment services.
- Pod case-manager: Helps patient set self-management goals; screen and counsel for depression; and provide assistance with tobacco cessation follow-ups.

In addition, pods are all color-coded to help better coordinate care and also help patients identify their own care team. Pod teams work in the same open room at the center of all patient rooms. Outcomes from Clinica Family Health Services self-reported data show a decline in A1C levels in diabetic patient population from 10.5% in October 1998 to 7.9% in November 2009. Diabetic patients with self-management goals increased from 3% in February 1999 to 50% in November 2009.

b. Tools for Healthcare Team
The American Diabetes Association (ADA) developed the 'DiabetesPro Professional Resources Online' for healthcare professionals who work in the field of diabetes. This resource provides a variety of tools for providers and diabetes educators including the Standards of Medical Care in Diabetes – which covers diabetic care components, treatment goals, and tools to evaluate quality care. This online resource also includes diabetes education materials for clinicians and educators with continuing education opportunities, webcasts, journals, podcasts, books, and resources for patients. This online resource can be accessed at http://professional.diabetes.org/clinical-corner.

c. Partnering in Self-Management
The Institute for Healthcare Improvement, with funding from the Robert Wood Johnson Foundation, has put together a toolkit for clinicians as part of the 'New Health Partnerships: Improving Care by Engaging Patients' initiative. This toolkit for providers includes tested resources to help clinicians engage patients and collaborate to support chronic disease self-management. The toolkit includes resources to aiding with team-based care, building relationships, and sustaining self-management support. The toolkit requires free registration to IHI.org and can be accessed from http://www.ihi.org/resources/Pages/Tools/SelfManagementToolkitforClinicians.aspx .

Application to Health Centers

- Patient engagement strategies are essential for providing patients with tools and support in managing diabetes and making lifestyle/behavioral changes, which will lead to patient activation.
  - Group visits can help patients work with peers to identify and overcome challenges related to diabetes self-management.
  - Improving communication strategies for patients with prediabetes will help to engage the patient in making their own lifestyle changes to delay/prevent diabetes.
  - Improving health literacy with multimedia and lessons will educate and promote diabetes prevention.
- Culturally-tailored education focused on self-management is crucial for improving diabetes outcomes among racial and ethnic minority patients. Effective care coordination and team-based care at health centers supports the delivery of comprehensive care and coordination of care to aid behavior change in patients.
  - A thorough visit with the provider followed by a "warm handoff" to appropriate healthcare staff will provide patient with the specific education, tools, and resources to set goals and overcome barriers.
  - Building and maintaining relationships with community organizations for patients to maintain self-management will assist patients in maintaining behavior change.
  - Tracking of patient utilization of self-management programs and follow-up will further assist with patient self-management.

Performance on Cholesterol Treatment

Rationale: If clinicians ensure that patients with established Coronary Artery Disease (CAD) receive lipid lowering therapy, then the likelihood of CAD related clinical events will be reduced.

UDS Performance Measure: "Percentage of patients aged 18 years and older with a diagnosis of CAD who were prescribed a lipid-lowering therapy."	**HP 2020 Objective:** There is no HP 2020 objective.

National & State Comparison:
All the percentiles and averages have improved. Majority of the health centers have their CAD patients on lipid lowering therapy at more than 80%.

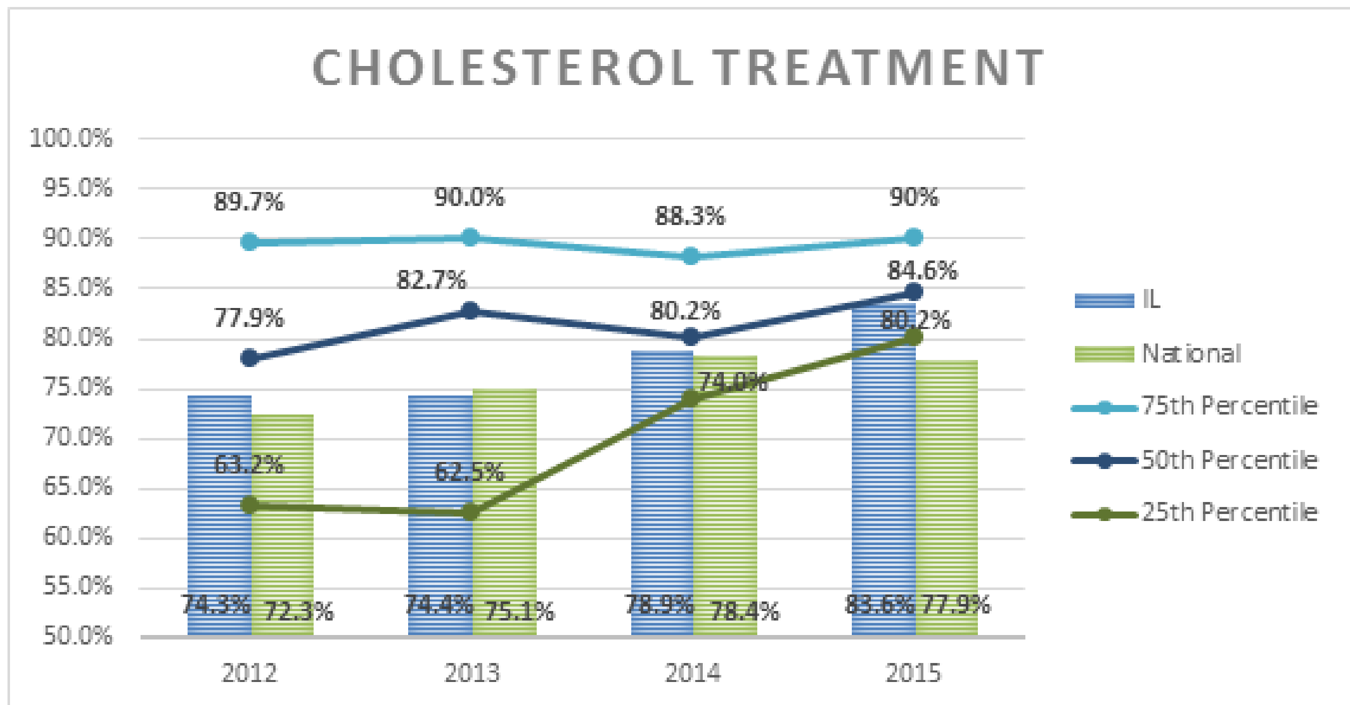


Figure D: Comparison of UDS averages (Illinois and National) and IPHCA member health center percentiles based on UDS data for Cholesterol Treatment

Performance on Cholesterol Treatment

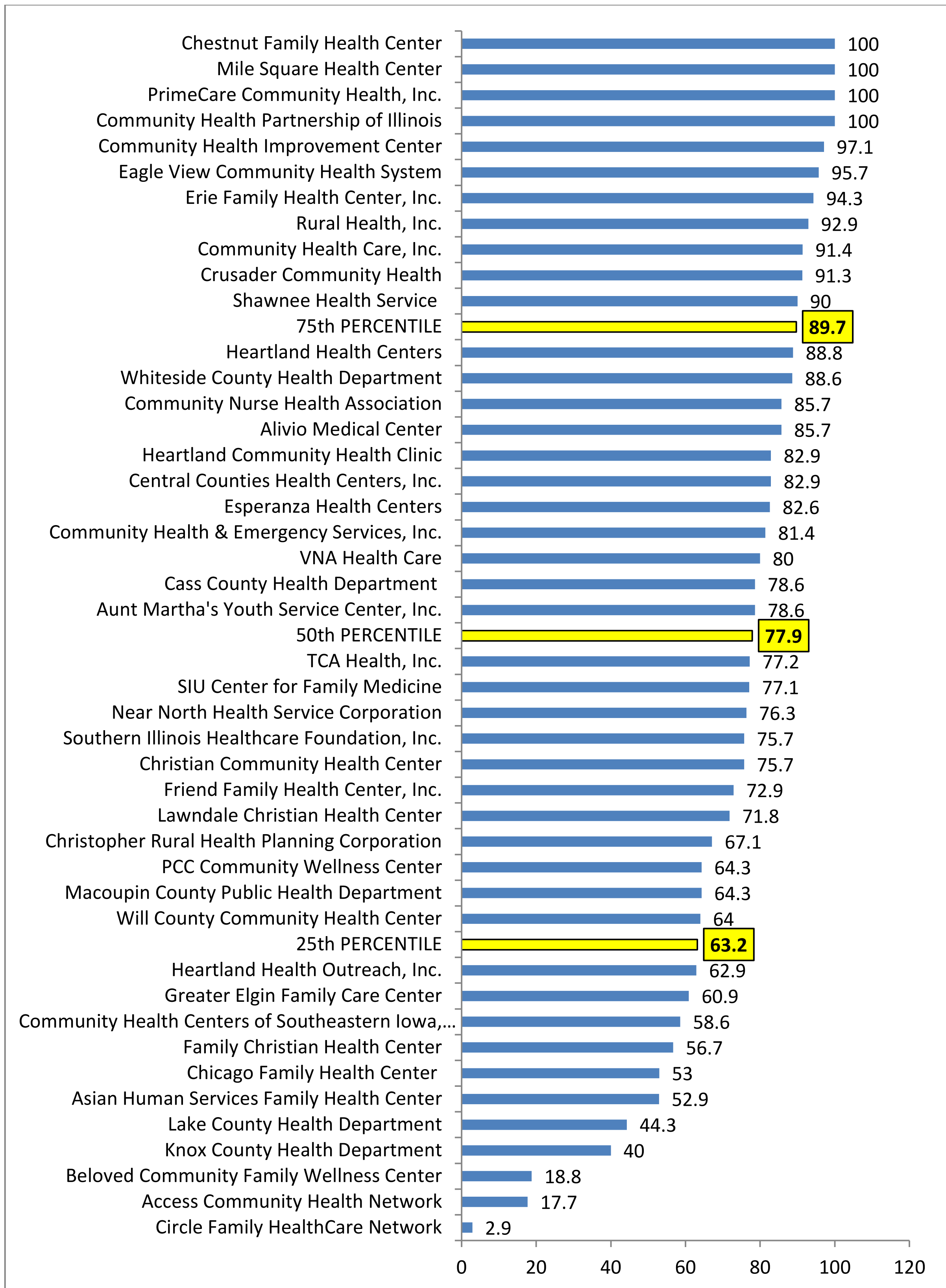


Figure D-1: 2012 Cholesterol Treatment data (%) of IPHCA member health centers and their percentiles

PERFORMANCE ON CHOLESTEROL TREATMENT

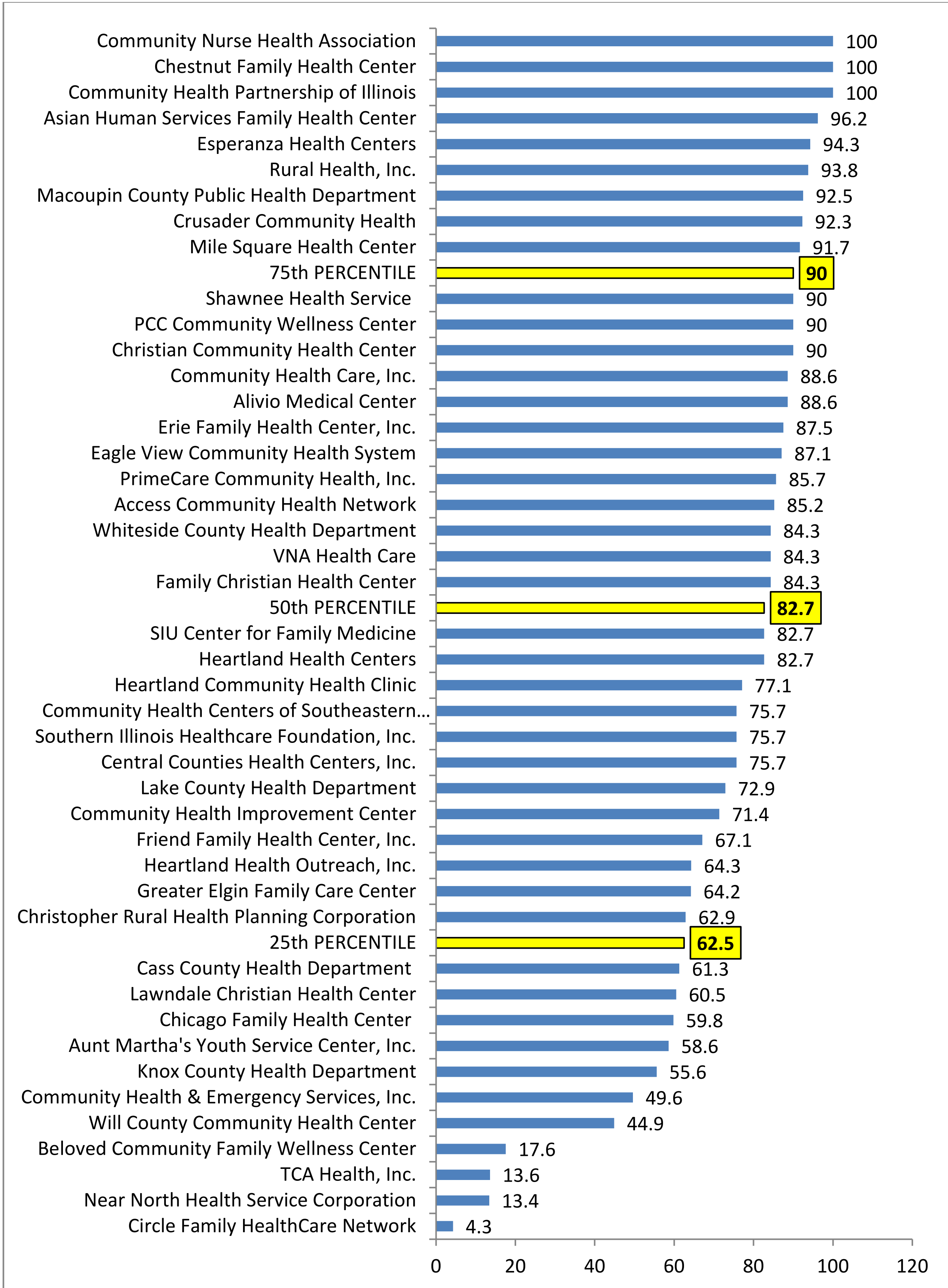


Figure D-2: 2013 Cholesterol Treatment data (%) of IPHCA member health centers and their percentiles

Performance on Cholesterol Treatment

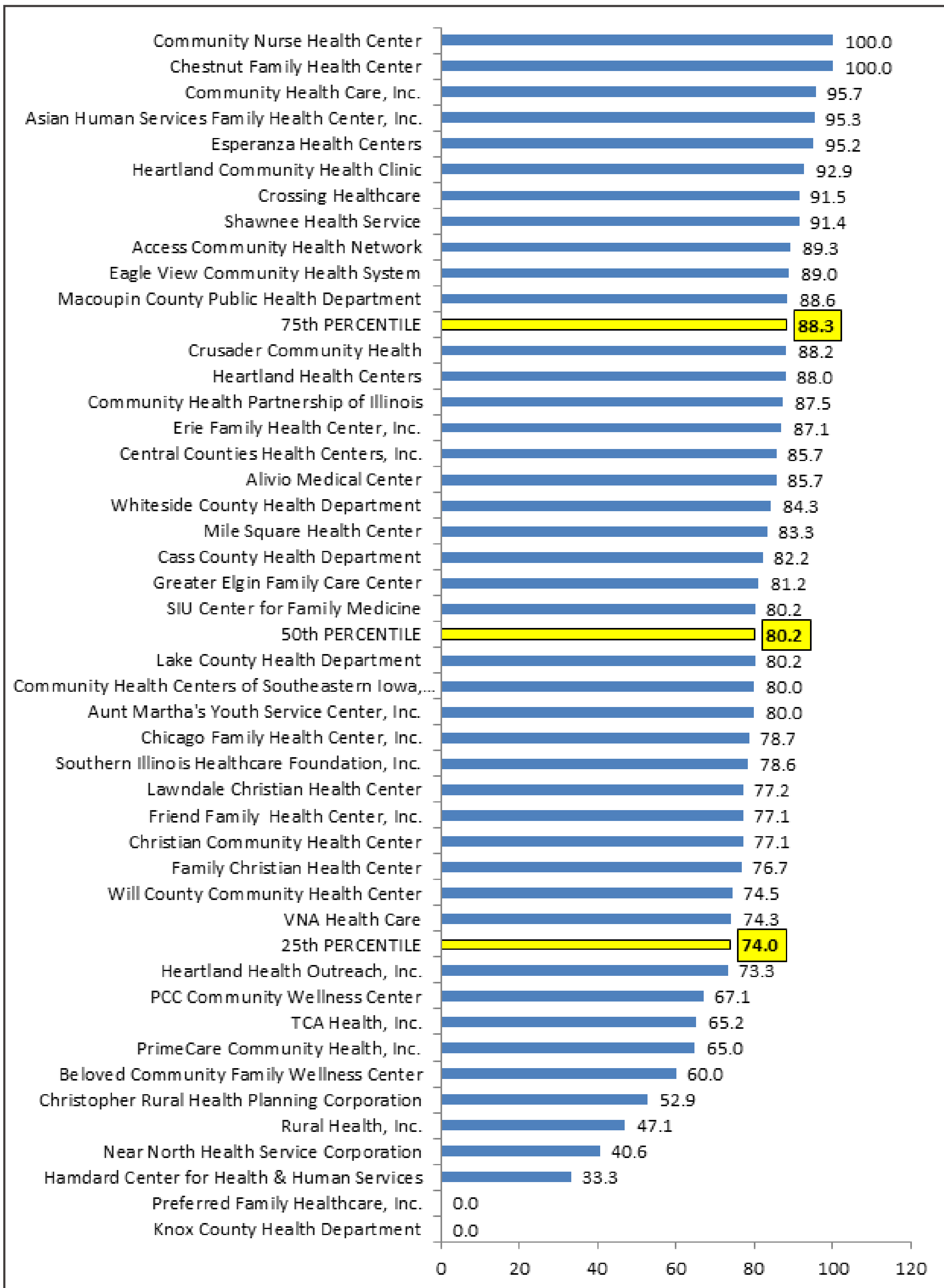


Figure D-3: 2014 Cholesterol Treatment data (%) of IPHCA member health centers and their percentiles

Performance on Cholesterol Treatment

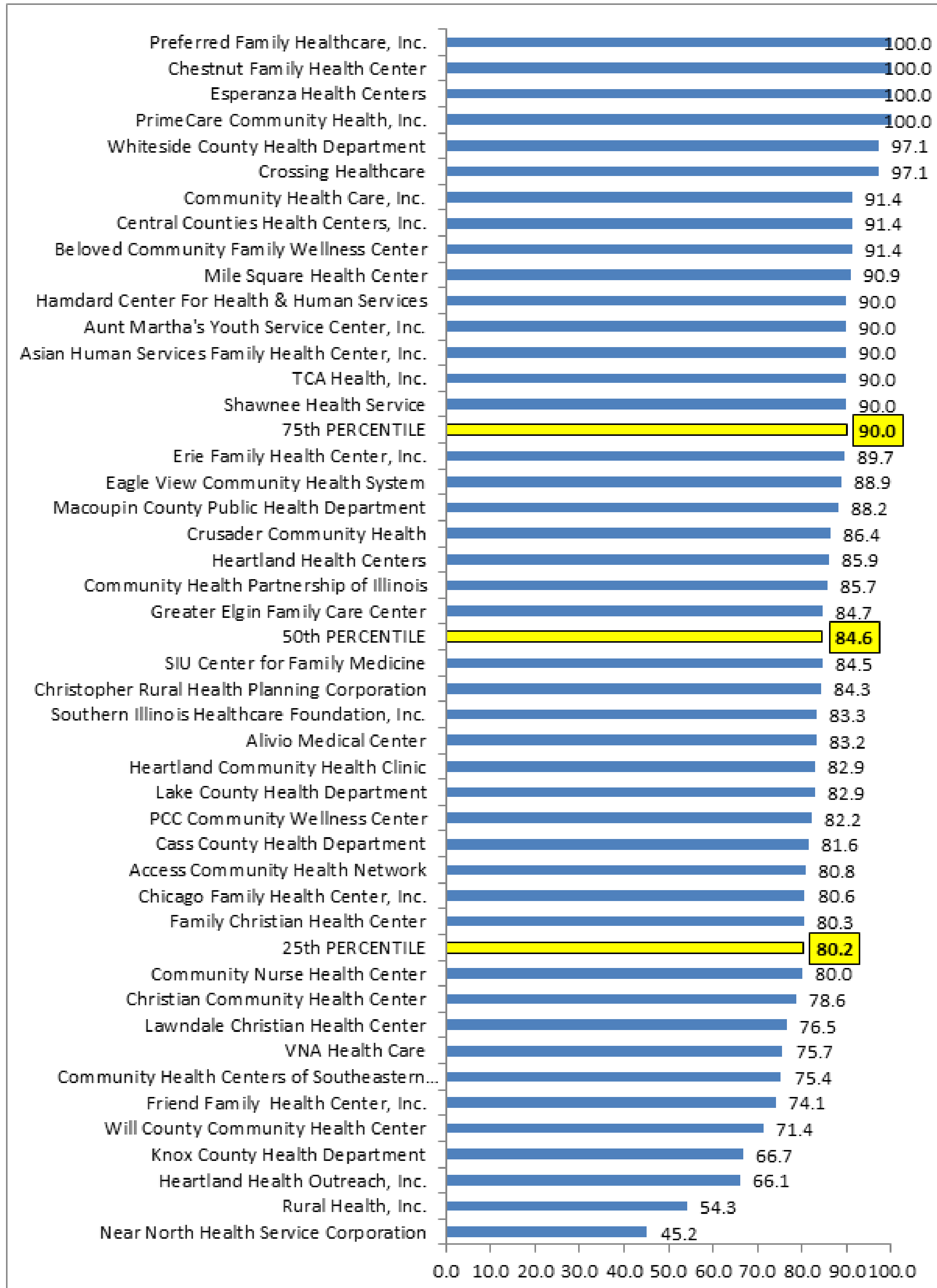


Figure D-4: 2015 Cholesterol Treatment data (%) of IPHCA member health centers and their percentiles

Performance on Heart Attack/Stroke Treatment

Rationale: If clinicians ensure that patients with established ischemic vascular disease (IVD) use aspirin or another antithrombotic drug, then the likelihood of the myocardial infarctions and other vascular events can be reduced.

UDS Performance Measure:	**HP 2020 Objective:**
"Percentage of patients aged 18 years and older who were discharged alive for acute myocardial infarction (AMI) or coronary artery bypass graft (CABG) or percutaneous transluminal coronary angioplasty (PTCA) in the prior year OR who had a diagnosis of ischemic vascular disease during 2014 who had documentation of use of aspirin or another antithrombotic."	The objective for comparison is under Heart Disease and Stroke (HDS) section. HDS-21: Increase the proportion of adults with a history of cardiovascular disease who are using aspiring or antiplatelet therapy to prevent recurrent cardiovascular events to 52.1%.

National & State Comparison:

Although Illinois average is relatively stable, 50th and 25th percentiles show an improvement. Majority of the health centers are above the Illinois average. It is impressive to note that all the member health centers have achieved the HP 2020 target.

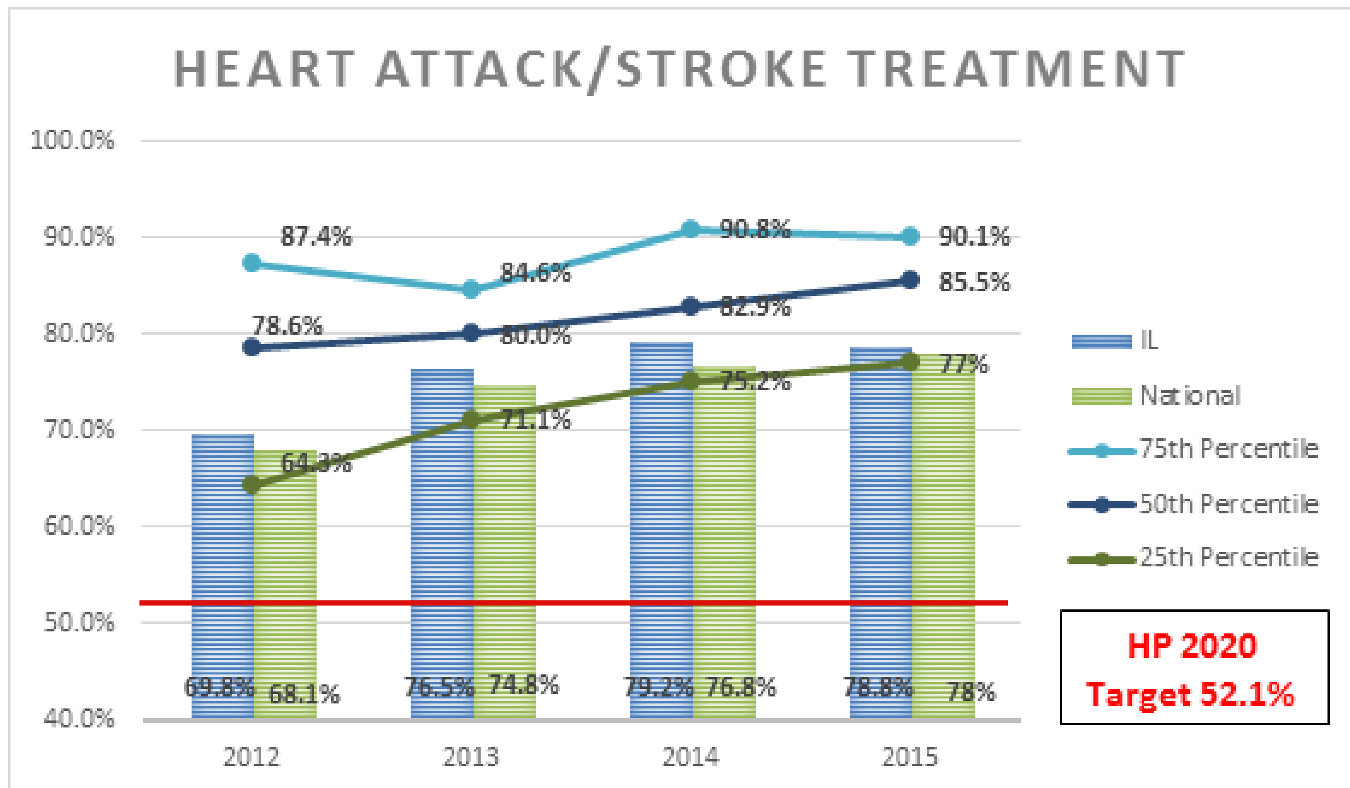


Figure E: Comparison of UDS averages (Illinois & National) and IPHCA member health center percentiles based on UDS data for Heart Attack / Stroke Treatment

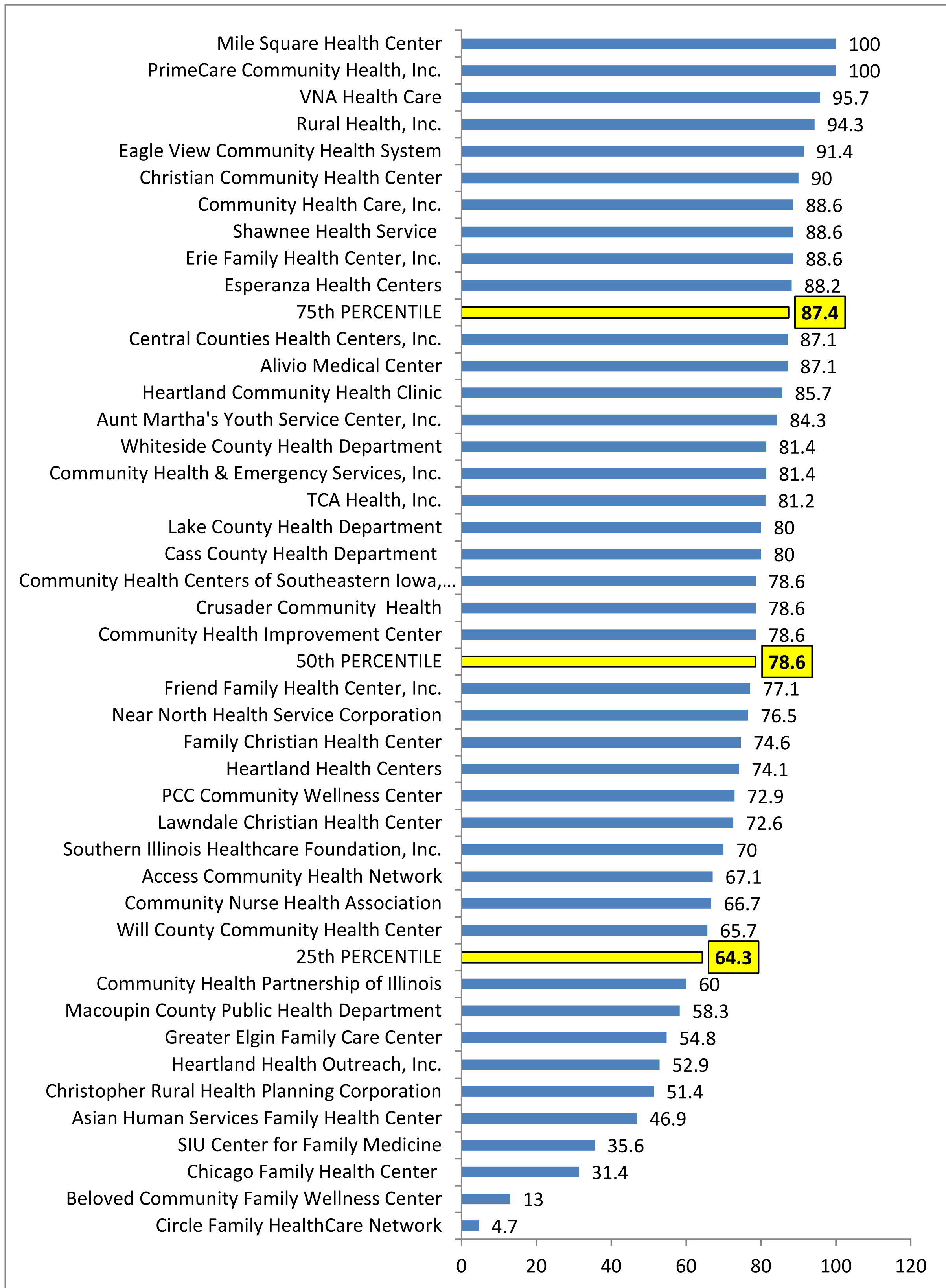


Figure E-1: 2012 Heart Attack/Stroke Treatment data (%) of IPHCA member health centers and their percentiles

Performance on Heart Attack/Stroke Treatment

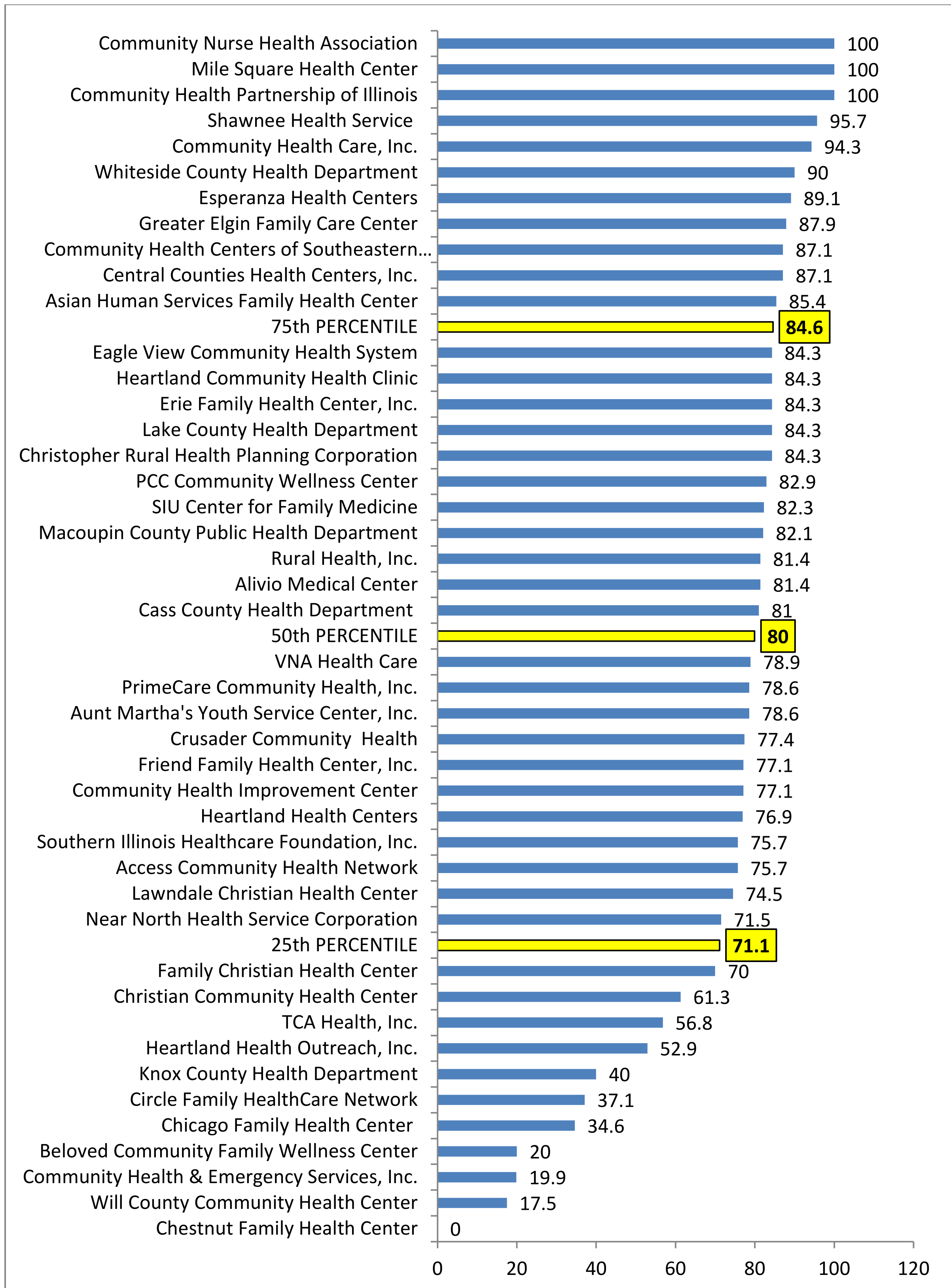


Figure E-2: 2013 Heart Attack/Stroke Treatment data (%) of IPHCA member health centers and their percentiles

Performance on Heart Attack/Stroke Treatment

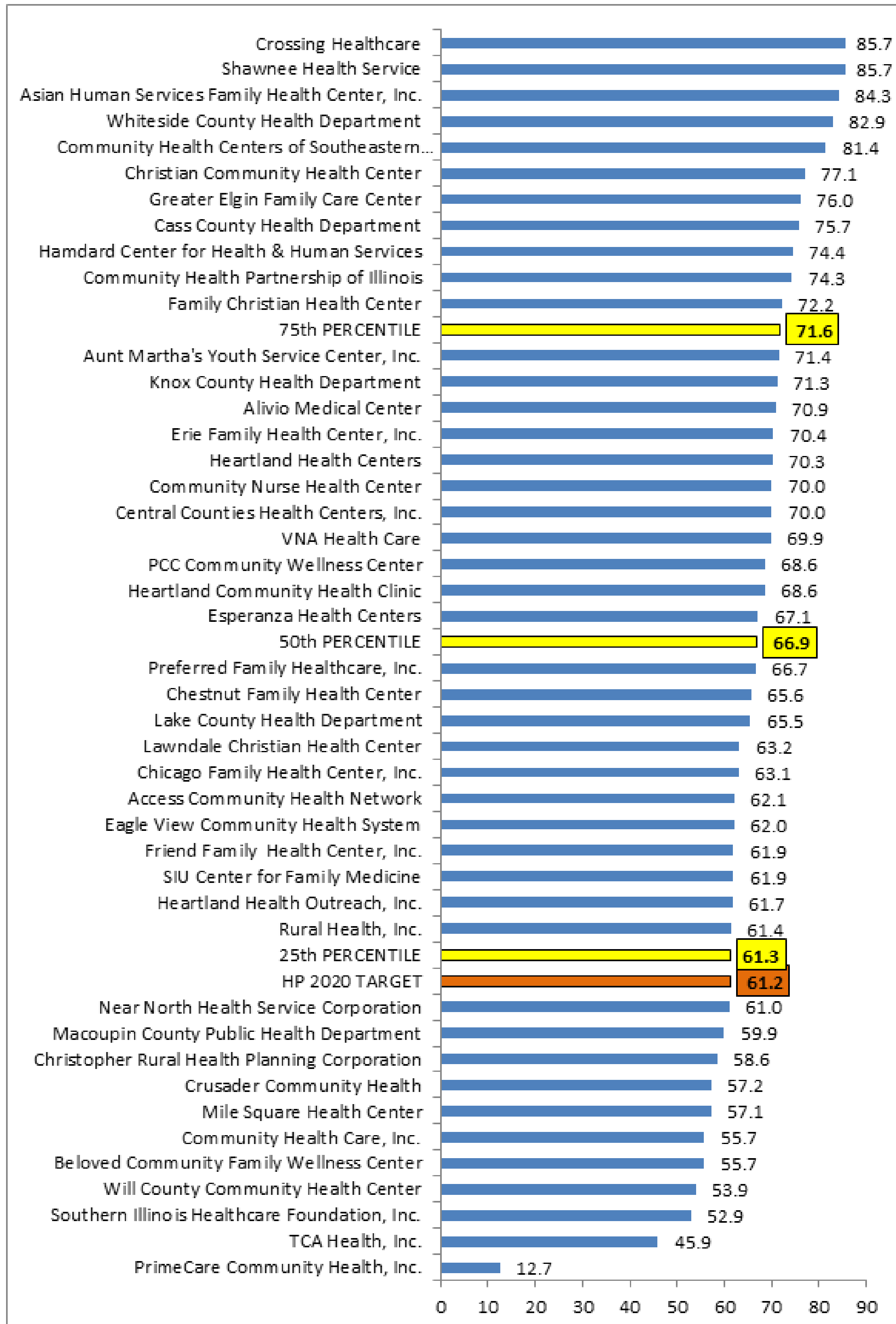


Figure E-3: 2014 Heart Attack/Stroke Treatment data (%) of IPHCA member health centers and their percentiles

Performance on Heart Attack/Stroke Treatment

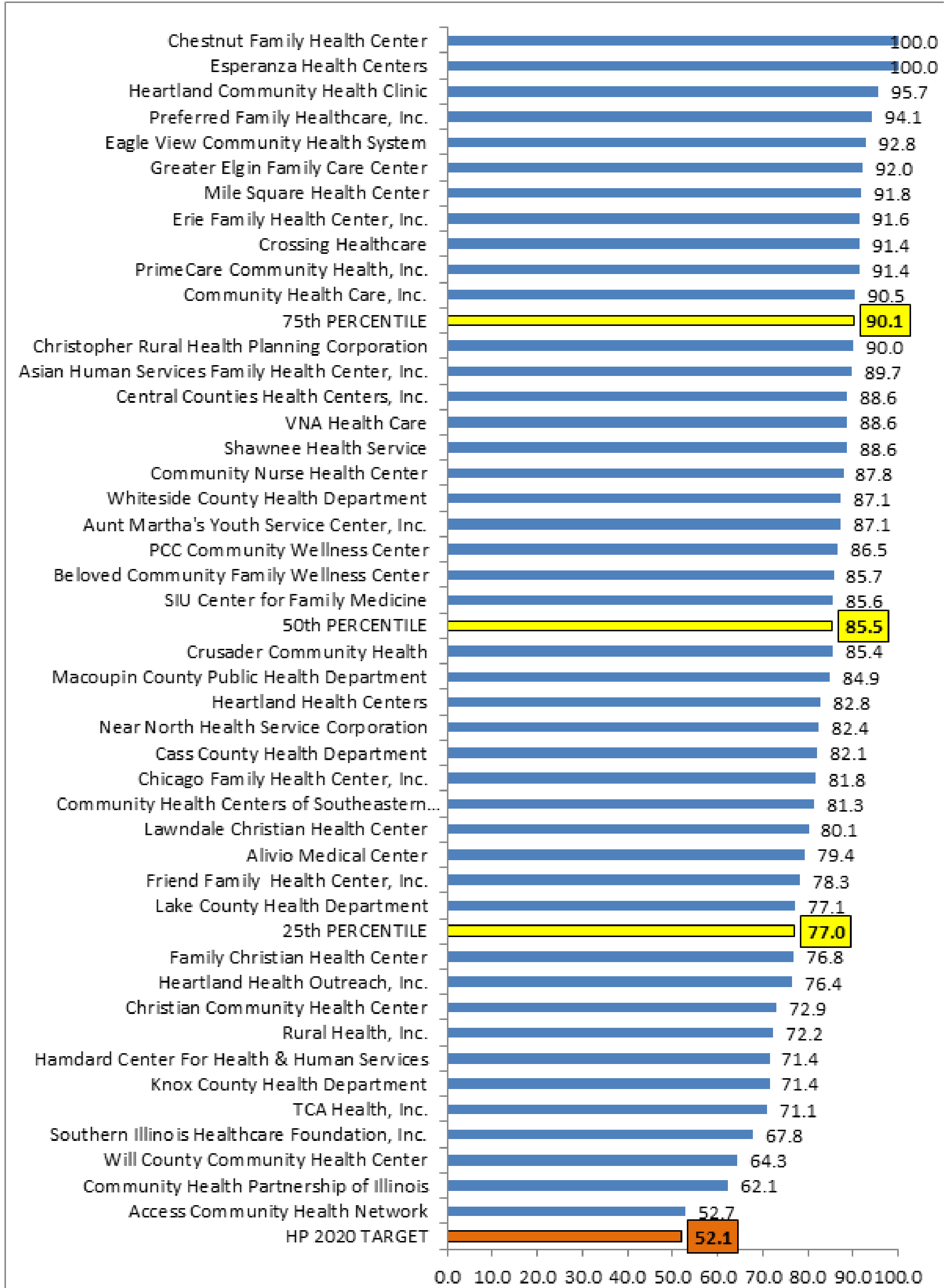


Figure E-4: 2015 Heart Attack/Stroke Treatment data (%) of IPHCA member health centers and their percentiles

Promising Practices – Cholesterol Treatment & Heart Attack/Stroke Treatment – 2015

Member Health Center Spotlight

1 Community Health Care, Inc. – Davenport, Iowa

Community Health Care, Inc. served over 33,000 patients in 2015. Community Health Care, Inc. has performed above the 75th percentile in heart attack and stroke treatment as well as cholesterol treatment. In 2015, Community Health Care's performance was at 90.5% for heart attack and stroke treatment and at 91.4% for cholesterol treatment. The following strategies have helped the health center achieve high rates in these indicators:

- Community Health Care, Inc. has implemented a patient population tool, Azara DRVS, which maps fields from EHR to effectively pull entire universe of patients that fall into this UDS universe.
  - Community Health Care, Inc. utilizes this software to perform gap outreach and ensure data validity.
  - Care Coordination Assistant (CCA) pulls a report every morning, known as the Visit Planning Report, which shows all of the care team's patients being seen for the day. The software allows care teams to plan for the day:
    - Alerts are built into this report and show when a patient is due for this and other services. One alert pertains to Coronary Artery Disease patients and to whether they have received appropriate lipid lowering therapy at least annually. Another alert discusses the use of ASA or anti-thrombotic or anti-platelet medication for patients that have suffered a current heart attack or stroke.
    - Teams huddle and discuss what each patient may need before their visit.

2 PrimeCare Community Health, Inc. – Chicago, IL

PrimeCare Community Health, Inc. (PrimeCare) served over 21,000 patients in 2015. PrimeCare performed above the 75th percentile in heart attack/ stroke treatment and cholesterol treatment. From 2014 to 2015, PrimeCare increased performance measures in heart attack/stroke treatment from 80.4% to 91.4%. Similarly, PrimeCare significantly improved performance measures in cholesterol treatment from 64.9% to 100% (2014 to 2015).

PrimeCare implemented the following focused strategies in addition to system-level strategies to attain these rates:

- PrimeCare's EHR system, Epic, is integrated with the affiliated hospital, St. Mary and Elizabeth Medical Center (part of the Presence Health Care System). This enables providers to receive integrated inpatient and outpatients reports and alerts for patient admittance and discharge.
  - The functionality of receiving alerts from the partnering hospital through EHR allows PrimeCare health center staff to monitor patients admitted and discharged with Coronary Artery Disease (CAD) and Stroke for appropriate and timely follow-up.

Task Force Recommendations

U.S. Preventive Services Task Force:

As of April 2016, the U.S. Preventive Services Task Force (USPSTF) recommends beginning low-dose aspirin use for primary prevention of cardiovascular disease (CVD) in adults aged 50-59 years who have a 10% or greater 10-year CVD risk, are not at increased risk for bleeding, have a life expectancy of at least 10 years, and are willing to take low-dose aspirin daily for at least 10 years.

The USPSTF recommends that adults with no history of CVD, use a low-to dose moderate-dose statin for prevention of CVD events and mortality based on the following:

1. They are aged 40-to 75 years
2. They have 1 or more CVD risk factors
3. They have calculated 10-year risk of cardiovascular event of 10% or greater Identification of dyslipidemia and calculation of 10-year CVD event risk requires universal lipids screening in adults aged 40-75 years old.

The Community Guide:

The Community Guide recommends engaging community health workers (CHWs) in the team-based care model to prevent cardiovascular disease. There is strong evidence for effectiveness of interventions that engage community health workers to improve blood pressure and cholesterol in patients at increased risk for cardiovascular disease (CVD).

There is also sufficient evidence of the effectiveness for interventions engaging community health workers for health education in patients at increased risk for CVD. The following models of care are interventions that engage CHWs to target CVD:

Intervention	Engaging CHWs to target CVD
Screening and Health Education	• CHWs screening for hypertension, high cholesterol, and behavioral risk factors according to USPSTF recommendations • Deliver individual or group education on CVD risk factors • Provide support for medication adherence • Offer self-management support for healthier behavior change
Outreach, Enrollment, and Information	• CHWs reach out to individuals/families eligible for medical services and help them apply to services • Perform follow-up and monitoring including reminders for appointments
Team-Based Care	• CHWs partner with patients and providers to improve care coordination
Patient Navigation	• CHWs help patients and families navigate health care system and increase accessibility to care
Community Organization	• CHWs serve as liaisons between community and healthcare system

Other Strategies form Literature Search

1 Medication Management

a. Medication Management – Primary Care Team Guide

The Primary Care Team Guide provides a multitude of resources to engaging every healthcare team member in patient-centered care. The guide enables primary care practices with the tools they need to achieve team-based care in the various facets of patient care. An important aspect of treating patients who have had a heart attack or stroke with aspirin is medication adherence. The Primary Care Team Guide includes a module on 'Medication Management' which can be applied to aspirin adherence for CVD patients. The Guide suggests the following action steps:

1. Routinely reconcile medications and prevent or address medication issues
   a. Trained MAs can conduct medication reviews with patients during routine visits or over the phone
2. Develop individualized medication plans
   a. Providers can work with patients and families to set up explicit treatment goals
   b. Providers can also develop medication plan to reach goals
3. Involve patient and team in titrating medications
   a. Training patients to safely and effectively adjusting medications
4. Manage chronic pain and opioids safely, effectively and humanely
   a. Develop explicit guidelines of using opioids for chronic pain

The Guide also provides resources within each of the action steps, a few of which are listed below:

- 'The Patient-Centered Medical Home: Integrating Comprehensive Medication Management to Optimize Patient Outcomes, Patient-Centered Primary Care Collaborative'- A resource guide on improving patient health through medication management: https://www.pcpcc.org/guide/patient-health-through-medication-management
- Medical reconciliation video: http://cepc.ucsf.edu/medication-reconciliation-video
- Additional tools and modules around Medication Management can be found accessed at: http://www.improvingprimarycare.org/work/medication-management.

b.The Aspirin Project – Preventive Use of Aspirin

The Aspirin Project is a collaboration developed by the Council on Aspirin for Health and Prevention – a group of public health and medical professionals. This group of specialists aims to further the initiative of the Altarum Institute using evidence-based research to increase appropriate use of aspirin in order to improve health. The council works with partners such as the American College of Preventive Medicine, the American Heart Association, the Preventive Cardiovascular Nurses Association, the American Medical Association, the U.S. Preventive Services

Task Force, and other organizations.

As part of the Aspirin Project, the Council has put together a guide for providers on the benefits and harms of the aspirin use. The 'Aspirin and Primary Prevention: Benefits and Harms' guide can be accessed from: http://aspirinproject.org/wp-content/uploads/2014/05/Aspirin-and-Primary-Prevention-Benefits-Risks-.pdf.

2 System-Level Changes

a. Telehealth to Improve CVD

The American Heart Association (AHA) recently released a policy statement in Circulation with a recommendation for implementing telehealth in cardiovascular and stroke care. In the comprehensive statement, they provide a review of evidence-based telehealth interventions and evaluate the effectiveness in terms of improving patient care. Telehealth aims to improve access to healthcare through digital technology such as telemedicine, eHealth, connected health, and mHealth. Telehealth can be valuable in patients with CVD or stroke due to barriers such as geographical location, physical disability, or transportation difficulties. In addition, AHA provided an analysis of effective interventions in various aspects of care that can be applied to treating CVD patients with aspirin or anti-platelet therapy such as the following:

- Improving medication adherences through telehealth programs
- Enhancing patient engagement
  - o One example of this is the Care Coordination/ Home Telehealth introduced by the Veterans Health Administration. This telehealth program empowers patients to manage their conditions with a nurse who acts a care coordinator and navigates patients through their home care. This shared decision-making process has shown to lower hospitalization rates.
- Improving provider-provider communication
  - o Telehealth can enhance communication between patient, primary care provider, and specialists. Nurses can also utilize telehealth to ensure patients are compliant to medications.

b. Mississippi Delta Health Collaborative

The Mississippi Delta Health Collaborative (MDHC) is an initiative by the state's Department of Health to improve cardiovascular health of the Delta region by promoting the ABCS (Appropriate Aspirin use and A1C; Blood pressure control; Cholesterol management, and Smoking cessation). MDHC works with partners by implementing strategies such as community-clinical linkages and changes in policy, environment and systems. One strategy employed is the Community Health Worker (CHW) initiative that began in 2011. All CHWs are full-time state health department employees that receive ongoing clinic-based training as well as medical record training, electronic data entry training, and the Stanford Chronic Disease Self-Management/Diabetes Self-Management Program (CDSMP/DSMP) Leaders Training. CHWs receive referrals of hypertensive patients from providers at FQHCs and rural clinics as well as referrals of clients from barbers and congregational health nurses. At home visits they conduct the following:

- Monitor and improve cardiovascular risk factors (blood pressure and cholesterol screenings; addressing medication adherences; promoting healthy diet and exercise, and tobacco cessation.)
- Reducing barriers to accessibility of health services (helping patients schedule appointments).
- Utilizing community resources to link patients with services to access care (transportation).
- Using online Web-based portal to conduct quantitative and qualitative information that is used for ongoing evaluation.
- Link patients to community programs including
  - o State's tobacco quitline;
  - o Culturally-tailored chronic disease/diabetes self-management group sessions.

Promising Practices – Cholesterol Treatment & Heart Attack/Stroke Treatment – 2015

Application to Health Centers

- Involving and engaging Community Health Workers (CHWs) as part of the healthcare team can effectively improve health outcomes in prevention and treatment of heart attack/stroke and cholesterol in patients.
  - CHWs can help patients with self-management support and monitor cardiovascular risk factors
  - CHWs can ensure patients are adhering to medication treatment
- Medication management involves the entire primary care team in order to engage the patient.
  - Providers can set up plans for treatment with patient and family and MAs can address issues and conduct follow-up.
  - Training and educating patients to properly adhere to medication is essential to reducing CVD and CAD events in these patients.
- Telehealth can be utilized in improving health outcomes for CVD patients.
  - Care coordinators/nurses can use telehealth to ensure patient adherence to medication.
  - Nurses, providers and specialists can communicate via telehealth to enhance flow of treatment for CVD patients.

Heart Attack/Stroke Treatment – References

1. The objective was revised and became measurable in 2015. Retrieved from: www.healthypeople.gov/node/4586/data_details#revision_history_header.
2. The objective was revised and became measurable in 2015. https://www.healthypeople.gov/node/4586/data_details#revision_history_header
3. Final Recommendation Statement: Aspirin Use to Prevent Cardiovascular Disease and Colorectal Cancer: Preventive Medication. U.S. Preventive Services Task Force. November 2016. Retrieved May 22, 2017 from
4. https://www.uspreventiveservicestaskforce.org/Page/Document/RecommendationStatementFinal/aspirin-to-prevent-cardiovascular-disease-and-cancer
5. Final Update Summary: Statin Use for the Primary Prevention of Cardiovascular Disease in Adults: Preventive Medication. U.S. Preventive Services Task Force. November 2016. Retrieved May 22, 2017 from
6. https://www.uspreventiveservicestaskforce.org/Page/Document/UpdateSummaryFinal/statin-use-in-adults-preventive-medication1
7. Guide to Community Preventive Services. Cardiovascular Disease: Interventions Engaging Community Health Workers. Retrieved May 22, 2017 from https://www.thecommunityguide.org/findings/cardiovascular-disease-prevention-and-control-interventions-engaging-community-health. Last updated March 2015.
8. Primary Care Team Guide. (2016). Medication Management. Retrieved May 22, 2017 from http://www.improvingprimarycare.org/work/medication-management.
9. Council on Aspirin for Health Prevention. (2016). The Aspirin Project. Retrieved May 25, 2017 from http://aspirinproject.org/.
10. Lee H. Schwamm, Neale Chumbler, Ed Brown, Gregg C. Fonarow, David Berube, Karin Nystrom, Robert Suter, Mirian Zavala, Daniel Polsky, Kavita Radhakrishnan, Nathaniel Lacktman, Katherine Horton, Mary-Beth Malcarney, John Halamka and A. Colby Tiner On behalf of the American Heart Association Advocacy Coordinating Committee. (2016, December 20). Recommendations for the Implementation of Telehealth in Cardiovascular and Stroke Care: A Policy Statement From the American Heart Association. Circulation. 135: e24-e44. https://doi.org/10.1161/CIR.0000000000000475. Accessed May 4, 2017.
11. Centers for Disease Control and Prevention. (2015, April). Addressing Chronic Disease through Community Health Workers: A Policy and Systems-Level Approach. Retrieved from https://www.cdc.gov/dhdsp/docs/chw_brief.pdf. Accessed May 4, 2017.

Performance on HIV Linkage to Care

Rationale: If patients found to be HIV positive are seen for follow-up care within 90 days of initial HIV diagnosis, then the probability of HIV-related complications and transmission of disease are reduced.
Note: This was a new measure in 2014

UDS Performance Measure: Percentage of newly diagnosed HIV patients who had a medical visit for HIV care within 90 days of first-ever HIV diagnosis.	**HP 2020 Objective:** There is no HP 2020 objective.

National & State Comparison:
Compared to 2014, both the IL and national average has decreased. However, all the three percentiles have increased in 2015. More than 50% of member health centers have achieved linkage to care for their HIV infected patients.

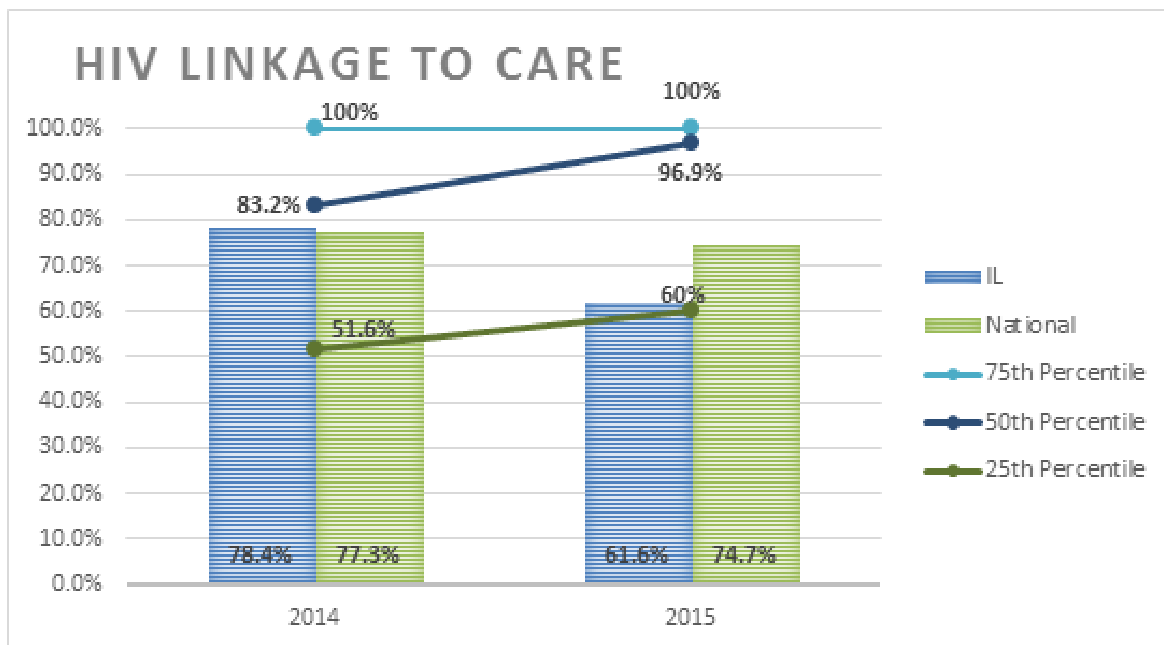


Figure F: Comparison of UDS averages (Illinois & National) and IPHCA member health center percentiles based on UDS data for HIV Linkage to Care.[1]

Performance on HIV Linkage to Care

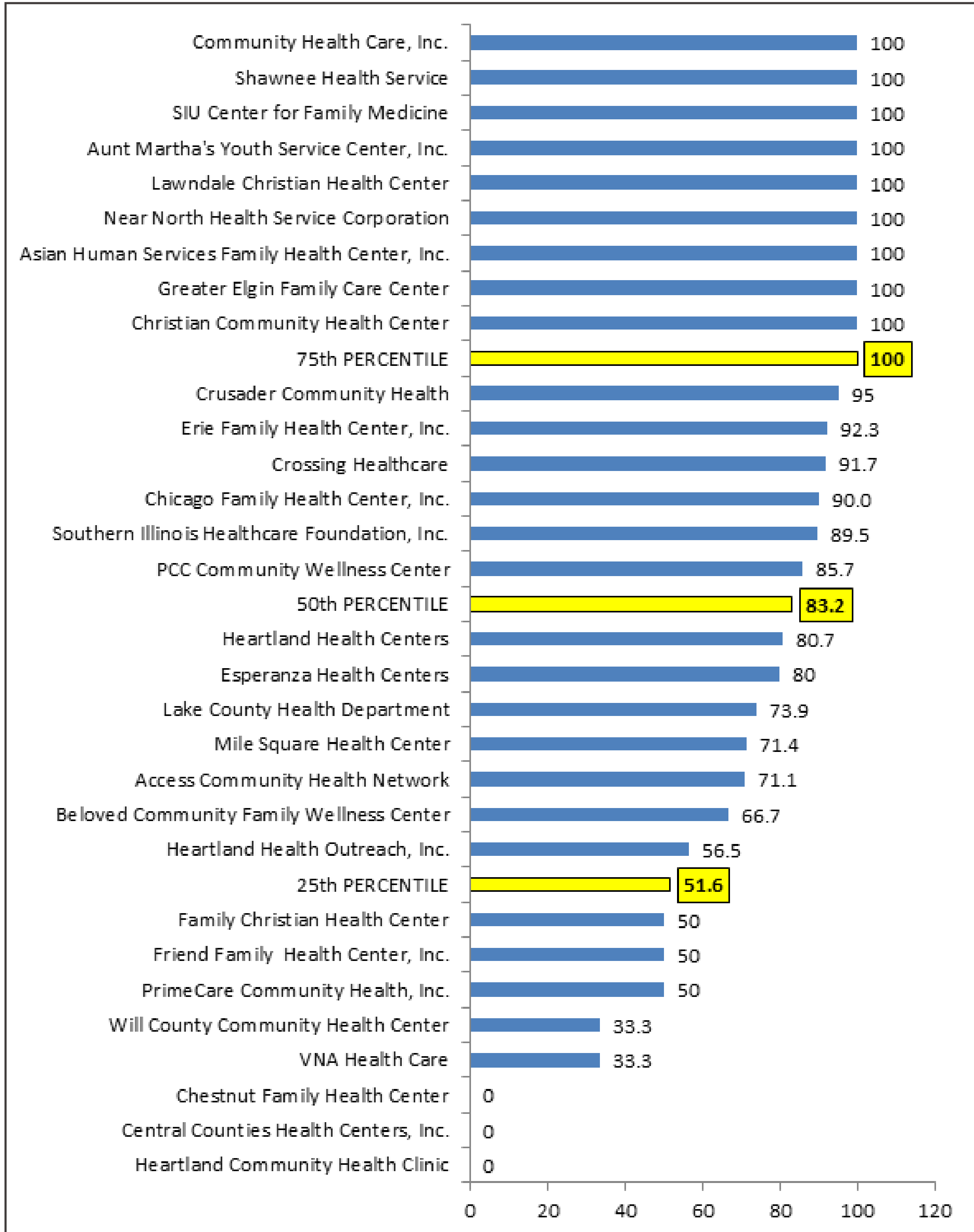


Figure F-1: 2014 HIV Linkage to Care data (%) of IPHCA member health centers and their percentiles

Performance on HIV Linkage to Care

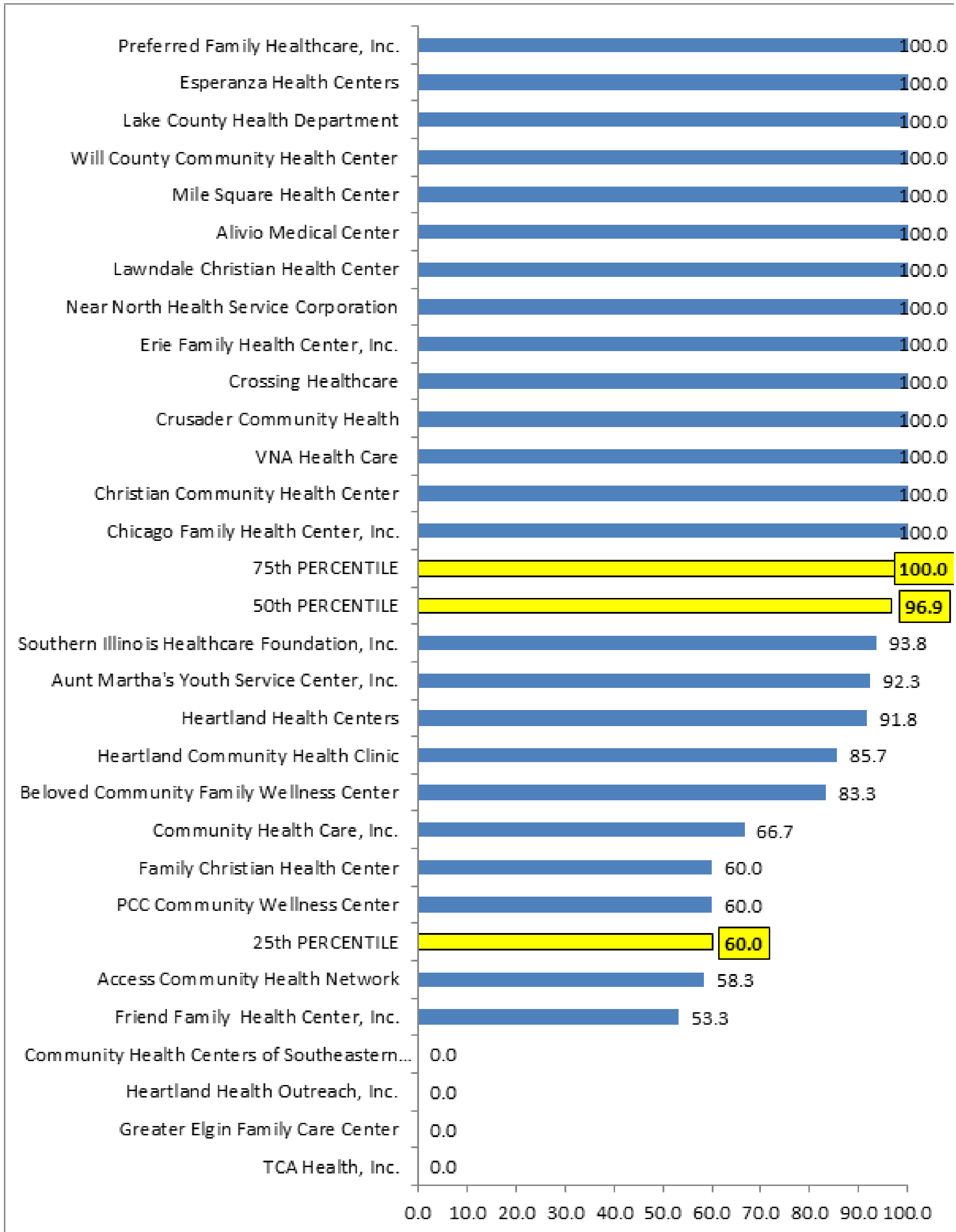


Figure F-2: 2015 HIV Linkage to Care data (%) of IPHCA member health centers and their percentiles

Member Health Center Spotlight

Esperanza Health Centers – Chicago, IL
Esperanza Health Centers served over 18,500 patients in 2015. Esperanza was a top performing health center for this indicator in 2015. Between 2014 and 2015, Esperanza significantly improved performance measures from 80% to 100%. A combination of system-level and focused strategies have helped Esperanza make this improvement:

- Newly diagnosed HIV patients are accompanied by care coordinator to first visit and care coordinators ensure patients are going to follow-up visits.
- Care coordinators have enhanced patient communication and engagement by ensuring barriers and challenges to care are thoroughly addressed.

Task Force Recommendations

The U.S. Preventive Services Task Force (USPSTF) recommends that clinicians screen for HIV infection in adolescents and adults between the ages of 15 and 65 years. Younger adolescents and older adults at increased risk should be screened as well. In addition, all pregnant women should also be screened for HIV – including those in labor who are untested and HIV status is unknown.

Other Strategies From Literature Search

1 Coordinating Care Projects

a. Nebraska AIDS Project (NAP) Linkage to Care Program

Nebraska AIDS Project (NAP) Linkage to Care program in an Omaha testing site helps those newly diagnosed HIV-positive with connecting to HIV medical services. The program begins with 1 pre-session meeting and consists up to 5 sessions within 90 days. During the course of these sessions, the participants are educated on the following topics:

- What is HIV/AIDS and Labs
- Stigma, Privacy/Confidentiality and Support
- Medication, Side Effects and Adherence
- Life Span and Life Styles
- Talking to your Doctor and What to Expect

The Linkage Coordinator works with newly diagnosed program participants to identify a session location that best fits them. In order to help with transition of care, the Linkage Coordinator is also able to join the participants in their first two medical appointments if they wish to engage with HIV medical care.

b. Culturally Competent Community Health Workers (CHWs) Improve Outcomes and Reduce Inpatient Utilization Among Inner-City HIV/AIDS Patients

In the greater Boston area, the Prevention and Access to Care and Treatment (PACT) Project committed to improving health outcomes for an underserved HIV-positive population. The PACT project began in 1998 and discontinued in December 2013. Trained Community Health Workers (CHWs) delivered home-based and culturally-tailored services to help with the following:

- Assisting with prioritizing health issues
- Adherence to medications and appointments
- Communicating with providers
- Overcoming social and economic barriers

In addition, the CHWs were ethnically and linguistically diverse which allowed patients to build trusting and lasting relationships, which ultimately led to the program's success. The program served 390 patients and pre- and post-implementation of the project in 2012 show that 56% of participants achieved or sustained undetectable viral (<75VL) 1 year after participating in PACT. Between July 2003 and November 2012, 58% of participants remained in the PACT program for at least 1 year. In addition, participants also reported high levels of satisfaction with services.

2 TARGET Center Resources

'TARGET' stands for Technical Assistance Resources, Guidance, Education & Training. The TARGET Center website provides technical assistance and training resources for the Ryan White HIV/AIDS Program. The site includes a plethora of resources funded by the Health Resources and Services Administration's (HRSA) HIV/AIDS Bureau (HAB) including the following:

a. In It Together Brochure
'In It Together – A Health Literacy Guide for Health Professionals Serving Black MSM Living with HIV' is a brochure developed to improve capacity of health professionals to deliver health literate HIV services – focusing on Black/African American men who have sex with men (MSM). The guide provides information and approaches to help providers offer clear HIV care while engaging them in the discussion.

The brochure can be accessed at: https://hivhealthliteracy.careacttarget.org/sites/default/files/file-upload/resources/health-professional-brochure-FINAL.pdf

b. Linking to Care Client Assessment Tool
In partnership with the Points of Integration workgroup, a joint venture of the Ryan White Part A Planning Council of the Philadelphia EMA and the Philadelphia HIV Prevention Planning Group, the Philadelphia Office of HIV Planning developed the Linking to Care Clint Assessment Tool. This brief assessment allows HIV testing staff and counselors to assess the linkage to care for newly-diagnosed HIV patients with regards to health coverage, finances, housing, and social supports. Utilizing this tool as a discussion guide, form, or in other ways can help the healthcare staff in delivering HIV care messages as well as addressing barriers to linkage to care (Appendix D).

c. 'Optimizing Linkage, Engagement, and Retention in HIV Care for Adolescents and Young Adults of Color' Webinar
Vinson, L., McHenry, M., and Salomon, L. of Fenway Health and the Sidney Borum Jr. Health Center present a webinar on their experiences engaging Boston youth into HIV care. They describe how focusing on racial justice initiatives optimized their work as well as building partnerships between health centers and community based organizations to help HIV-positive youth.

- The webinar can be accessed from https://vimeo.com/125696198.
- Additional slides to accompany the webinar are available at: https://careacttarget.org/library/optimizing-linkage-engagement-and-retention-hiv-care-adolescents-and-young-adults-color.

Application to Health Centers

- Incorporating specific care coordinators or Community Health Workers (CHWs) in the health care team can help connect newly diagnosed patients to HIV services and care.
- Providing culturally and linguistically appropriate material and discussion ensures patients are able to build trusting and lasting relationships with healthcare staff, which ultimately leads to better health outcomes.
- Engaging patients in discussion around HIV care and services is essential to ensuring linkage to care and adherence to care.

o Improving health literacy of the health care staff on HIV care to target populations can help staff deliver competent care that will engage their patients.

o Addressing racial justice can help engage patients experiencing social barriers and lead to improved linkage to care.

HIV Linkage to Care – References

1. 32 health centers were included for the 2014 percentiles. Note that the remaining 13 health centers had 0% of HIV patients as per the UDS data for 2014, and therefore were excluded from the percentiles.
2. 16 health centers have been excluded from the graph and percentile calculation since there were no new HIV patients in the reporting period of 2015

Quality Improvement Strategies in Illinois Health Centers – 2013

Quality Improvement (QI) and other common strategies were identified at some of the interviewed health centers. Since these strategies can be applied to multiple indicators, they are mentioned separately.

1 PCC Community Wellness Center – Oak Park, IL

- QI strategies:
  - Quarterly tracking – 15 indicators are tracked and one of them is blood pressure control. This aids in everyone committing to the same goals. Following are the activities in-place during quarterly tracking:
    - Clinic reports and individual provider reports are generated.
    - Site reports are also being generated. Medical Director of Performance Improvement talks to Clinic Directors of sites and best practices are shared.
- Other common strategies:
  - Development team is assigned to look out for grants.

2 Asian Human Services Family Health Center – Chicago, IL

- QI strategies:
  - Leadership involvement – chart review interval was shortened to three months from six months, which are frequently chaired by President of the Board. Reports are broken up physician-wise to track progress, which instills competitiveness.
  - Availability of resources – In addition to CME opportunities, there is availability of UpToDate to stay abreast of recent changes in guidelines, which aids in addressing Quality and Safety.
  - Illinois Health Connect panel roster is used for benchmarking and QI.
  - Physician performance is evaluated annually.
- Other common strategies:
  - Automated reminder calls for missed appointments.
  - Developing relationships with outside providers in the community.

3 Rural Health, Inc. – Anna, IL

- QI strategies:
  - Comprehensive approach is taken to QI to ensure that all providers are on board with commitment to strategies to achieve targets. This approach is further enhanced by conducting monthly medical staff meetings and provider education led by QI Nurse at each meeting.
  - Flow sheet – Three years ago, an adult preventative flow sheet was created that includes majority of the questions for providers to follow related to UDS indicators. Several flow sheets are utilized for other services which help with auditing in addition to care for patients.
- Other Common Strategies:
  - In March 2012, NotifyMD helped create patient outreach call system for certain diagnoses.
  - Reminders calls are sent to diabetic patients who have not had a follow up in the last six months, or reminder calls for immunization.
  - System can include daily appointment reminders or automated reply for no-show calls (e.g. missed appointment in case of prenatal care).
  - System can also include a routine call for reminder appointments. This has dropped the no-show rate from 16-18% to < 9% in the past two years.

4 Community Health Improvement Center – Decatur, IL

- A QI staff is designated to distribute UDS measures during monthly provider meetings in addition to quarterly meetings. All providers are committed to achieving targets based on UDS measures. MU and PCMH discussions also held during these meetings.
- CHIC has purchased MediQuire, a data analytics company that integrates and works with installed EHR. MediQuire does retrospective and current analysis of the data and generates dashboards for providers and various types of reports, such as, the number of patients (hypertension or diabetes) due on a particular date for a provider. CHIC purchased MediQuire with an investment of $10,000.

5 **Esperanza Health Centers – Chicago, IL**

- Providers are familiar with UDS terminologies, which are discussed during periodic staff meetings that help align care provided and UDS measures.
- New providers get an hour-long orientation on UDS.
- Medical Assistants are also familiarized with UDS concepts.

6 **VNA Health Care – Aurora, IL**

- Committee meetings on a weekly basis with staff from IT, QI and Medical Director to improve processes and performance.
- Developed their UDS Quality Measure Screen based on the need of the health center.

Summary of QI and Common Strategies

- Frequent tracking of indicators will aid in active monitoring of progress and in addressing challenges early on.
- Implementing an automated reminder call system will save crucial staff time and help in reducing patient no-show rate.
- Availability of evidence-based resources will help in adhering to quality and patient safety.

Quality Improvement Strategies in Illinois Health Centers – 2014

Quality Improvement (QI) and other common strategies were identified. Since these strategies can be applied to multiple indicators, they are mentioned separately.

1 **Lawndale Christian Health Center – Chicago, IL**

- Various QI committees meet periodically to address different initiatives:
  - o Quality Assurance (QA) Committee of the Board of Directors: Meets quarterly and is responsible for broad quality oversight, the annual quality plan, and research project approval.
  - o Clinical Quality Improvement Committee: Meets monthly and is responsible for performance improvement around key quality metrics and compliance.
  - o Managed Care Committee: Meets monthly and is responsible for compliance with utilization management plans, targeted pay-for-performance quality measures, and for oversight of population health strategies – including the complex case management program.
  - o Senior Leaders: Meet monthly and are responsible for organization level oversight.
  - o Site Medical Directors: Meet twice a month and discuss clinical issues; clinical policy and practice guidelines; provider credentialing and evaluation; and risk management.
  - o Operations Huddle: Takes place twice a month and is the operational implementation group to achieve QI goals and strategies – including that for PCMH recertification.
- Infrastructure to address social determinants of health: In-house health fitness center where community members have easy access to a safe facility to maintain physical activity is part of Lawndale's infrastructure to address social determinants of health.
- Upcoming initiative: LCHC is looking to implement a 'Daily Appointment List' to be utilized during morning huddles, which will have details of the patients visiting that day and will carry information on relevant clinical data, last lab tests, status of preventive screenings, and results of a health risk assessment or risk stratification.

2 **Cass County Health Department – Virginia, IL**

- Quality awards from HRSA has helped Cass County Health Department (CCHD) create additional responsibilities and roles, where one staff monitors and runs reports, and another staff schedules appointments that need follow-up, such as immunizations, follow-up of hypertension patients, colorectal cancer screening, and related services.
- In addition, the day before a patient visit, a nurse reviews the patient schedule and runs their individual reports to identify what they are due for. This helps track preventive services and follow-up services that patients are due for.
- QI meetings are done quarterly and reports are discussed; 6-8 measures are looked at in-depth during each of the meetings.

3 **Heartland Community Health Clinic – Peoria, IL**

QI committee chooses topics to focus on, which is approved by the board, and for each identified measure, a task force is assigned. For example, during the previous year, the QI committee identified 5 topics: diabetes mellitus, hypertension, colorectal cancer screening, cervical cancer screening, and immunization.

- Task Force
  - o Composition – Providers, Nurse, and sometimes Medical Assistant (MA), and Residents.
  - o Process – Once topic is assigned to Task Force, they are given 2-3 months to develop goals and plans, following which, they do a mock presentation to providers, and make the final presentation a month after.
  - o Time – The process to identify plan of action by Task Force might take six months.
- For each topic area identified, two strategies are deployed:
  - o Task Force's set of advice
  - o Training around proper implementation of EHR, which includes right documentation and capturing data in the right places. Task Force spends a good amount of time with IT department.

- Special Report – A special type of reporting system has been implemented:
  - For every patient visiting that day, a report is generated identifying all UDS clinical indicators.
  - This report is discussed during the morning huddle and plays an important role in identifying what is missing for the patients, such as CRC screening for eligible patients.

4 Heartland Health Centers – Chicago, IL

- Heartland Health Centers (HHC) has implemented a health information exchange with a hospital that allows real-time data exchange on labs and discharge notes from emergency rooms (ER), which aid tremendously in care transitions. In addition to E-prescribing, medication reconciliation is also carried out.
- Care Coordination Activities:
  - At the time of patient visit, medical assistants ask patients several questions to better coordinate care:
    - Have patients been to the ER or admitted to the hospital since their last visit?
    - Have patients seen specialist?

The answers to these questions trigger the primary care provider to identify and address changes in the care plan required by recent transitions in care.

- HHC have also created two different kinds of roles in improving care coordination:
  - Integrated Care Specialist – works with Medical Home Network (MHN) Connect. They work on patients discharged from hospital and ER and look at preventive care measures to facilitate follow-up for diabetes, colon cancer, Hepatitis C and cervical cancer screening. In addition, care specialists receive a list of patients and preventive care measures from Illinois Health Connect and other insurers.
  - Referral Specialist – works with provider identified referrals. They aid in navigating managed care for their patients and identifying specialists.

Summary of QI & Common Strategies

- Effective patient care coordination with implementation of specific roles and continuous follow-up as well as management of care can lead to improved patient outcomes.
- Involvement of staff from different levels at a health center is essential in implementing an effective QI program.

Quality Improvement Strategies in Illinois Health Centers – 2015

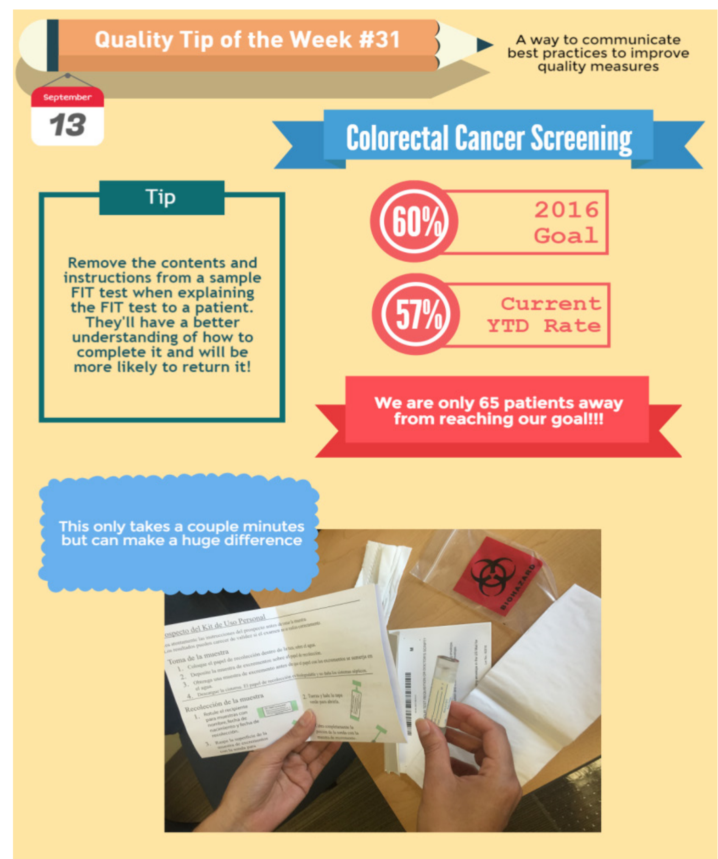
Quality Improvement (QI) and other common strategies were identified. Since these strategies can be applied to multiple indicators, they are mentioned separately.

1 Community Health Care, Inc. – Davenport, Iowa

- At Community Health Care, Inc., monthly reports are provided to all care teams and providers with information on visit data, UDS clinical indicators, and accreditation requirements.
  - o Visit data is representation of all the patients the care team has provided care for in the past month.
- Quality Coordinator and Training Coordinator meet frequently with care teams to discuss best practices and ensure each member is using effective strategies to move population of patients in positive and healthier way.
- Providers meet quarterly to discuss evidence-based practices, progress reports and any other pertinent clinical quality data or issues. At this time, nursing members as well as other departments have their meetings to discuss the same.
- Adult Clinical Advisory Group: Community Health Care, Inc. has implemented an Adult Clinical Advisory Group, which is a provider-led committee that meets monthly to conduct the following in order to assess whether providers have truly adopted evidence-based guidelines and workflows:
  - o Discusses evidence-based guidelines
  - o Develops policies and procedures
  - o Assists in creating effective workflows
  - o Discusses proper collection practices for clinical quality outcomes, including figuring out how to incorporate evidence-based guidelines into daily workflows
  - o Guides the peer review process, including creating condition-specific peer review

2 Esperanza Health Centers – Chicago, IL

- Esperanza Health Centers utilizes a robust reporting system and population health management tool of their new EHR system, Athena, to track quality improvement measures.
  - o Point of care reminders within the EHR enables providers to improve patient care.
- A quality incentive program is in place that includes annual QI bonuses to all members of a care team, which engages all healthcare staff team members in friendly competition.
- UDS measures are discussed regularly during department meetings with clinical care teams to help align care to UDS performance measures.
- Quality Manager: Esperanza's Quality Manager plays a crucial role in motivating teams and conducts the following activities related to quality improvement:
  - o Meets regularly with each team and provides high quality feedback on performance measures.
  - o Produces a monthly dashboard to update care teams on performance and serves as "performance coach" to assist care teams in implementing best practices for achieving quality goals.
  - o Sends weekly QI tips to healthcare staff to improve specific quality measures as shown below:



- Esperanza recognizes the importance of care coordination and utilizes a team-based approach to providing quality care.
- Team-Based Care (TBC) Model: Esperanza redesigned clinical care teams 2 years ago and it has been an evolving process. Some of the noteworthy features of their TBC model:
  - o Care teams comprise of Provider, Care Coordinator and Medical Assistance (MA). One care coordinator is assigned to every two medical assistant-providers.
  - o All care team members are co-located in the same physical space, which has shown to enhance communication between team members, eliminate hierarchy, and assist in problem solving.
  - o Each care team member is assigned with specific roles and responsibilities.
  - o Positive reinforcement is utilized to assist care teams maintain and achieve performance.
  - o Performance coach plays an important role in motivating and assisting care teams.
  - o Annual quality incentive bonus is shared among all the members of the care team.
  - o Administration is supportive of the TBC model, who then advocate for funding.
- Care Coordinators: Addition of care coordinators to the clinical team has enhanced patient communication and engagement. Specifically, care coordinators target the following:
  - o Ensure barriers and challenges to care are thoroughly addressed.
  - o Utilize EHR alerts to make reminder phone calls for follow-ups and help patients to set up appointments.
  - o Identify and reach out to patients due for screenings or patients who are non-compliant.

3 PrimeCare Community Health, Inc. – Chicago, IL

- PrimeCare Community Health, Inc. (PrimeCare) has adopted the Patient-Centered Medical Home (PCMH) model and is recognized at NCQA PCMH Level 3 that places an emphasis on care coordination and communication to provide enhanced care to patients.
- PrimeCare's EHR system, Epic, is integrated with the affiliated hospital, St. Mary and Elizabeth Medical Center (part of the Presence Health Care System). This enables providers to receive integrated inpatient and outpatient reports and alerts for patient admittance and discharge.
- Clinical Quality: A culture of quality has been instilled in the health center through various activities:
  - o Each year, four clinical measures are identified for targeted improvement, with one measure targeted each quarter.
  - o Quality committee meetings are conducted monthly where clinical quality measures and relevant reports are discussed.
  - o Provider meetings are conducted bi-monthly to review and compare quality measure performances. In addition, a quality incentive program is in place for providers.
  - o As part of culture of quality:
    - □ workflows are reviewed and revised
    - □ communication is emphasized
    - □ data validity is ensured
- Team-Based Care: PrimeCare's multidisciplinary team allows for continuity of care for patients. A staffing ratio of 1.6 per provider is utilized.
  - o Referral Coordinators: PrimeCare created the role of Referral Coordinators who are Medical Assistants (MAs) that play an integral role in following up with patients and helping to refer to specialty care if needed.
- As part of PCMH transformation, PrimeCare developed a TBC guide to implement various activities around provision of TBC delivery of services:
  - o Roles/responsibilities of team members were identified.
  - o Huddle guide was developed and huddles were incorporated as part of workflows. Pre-huddle with MAs is performed.
  - o Checklists have been developed for team members.
- PrimeCare's patient portal, MyChart, automatically generates messages for patients who had not been seen for follow-ups such as for diabetes or asthma and/or who were due for immunizations or cancer screenings. MyChart also sends messages to patients through the portal for post-visit evaluations.
- Case Managers: Case Managers at PrimeCare play a unique role with the partnering hospital

where they are active in in-patient and follow-up care of patients. They are part of a multi-disciplinary team rounding at hospitals for admitted patients and perform follow-up needs of patients:
  - Case Managers provide introduction to PrimeCare during hospital visits and remind patients to follow-up with provider. They also ensure that patients have transportation to health center if needed.
  - After hospital discharge, during the Transition of Care, Case Managers reach out to patients within 48 hours to answer any clinical and medical questions. In addition, the Case Manager will schedule an appointment within 7 days of discharge. The nurse will then troubleshoot any questions/concerns or triage when needed.

4 **VNA Health Care – Aurora, IL**

- At VNA Health Care (VNA), Step-by-Step Wellness programs were developed to offer diabetes, heart health, wellness, weight loss, family wellness and maternal wellness classes and allow patients to flow into any of the classes as their schedule permits.
- Several healthy initiatives have been implemented including:
  - A local farmer's market fruit and vegetable stand at their main campus that aligns with VNA's Fresh First USDA Grant and wellness classes.
  - A local juice making mobile vendor who comes to serve fresh fruit and vegetable juices for patients (and staff).
- Care Coordinators help to recruit patients in VNA's diabetes-specific wellness program.
- EMR capabilities: Providers utilize self-management education plans from EMR.

Summary of QI and Health Center Strategies

- Utilizing EHR capabilities can help health center staff implement effective quality improvement initiatives and track measures.
- Effective care coordination enables health center staff to ensure patient needs are met and barriers to care are addressed.
- Creating defined roles for staff helps effectively reach out to patients and follow-up as needed.

Appendix A – Health Center Information – 2013

The following health center information is from October 2014 (2013 health center profile) and is available on the HRSA website. Only some relevant characteristics have been highlighted.

PCC Community Wellness Center (PCC) – Oak Park, IL
PCC served around 46,000 patients in 11 health centers. It is PCMH–accredited and has EHR. 92.5% of its patient population belong to racial or ethnic minority group – 34.6% Hispanic/Latino, 59.4% Black/African American, 6.9% American Indian/Alaska Native. 92.7% of its populations are at or below 200% poverty level. 15.6% are uninsured and 63.5% had Medicaid. Patients with hypertension were 12.8%, diabetes 7.9%, and asthma 6.6%.
www.pccwellness.org

Asian Human Services Family Health Center (AHSFHC) – Chicago, IL
AHSFHC served 8,000 patients from three sites. It is PCMH–accredited and has EHR. 92.7% of its population was racial/ethnic minority – 79.2% Asian, 18.7% Hispanic/Latino, 11.4% Black/African American. 82.1% of its population was best served in a language other than English. 98.9% are at or below 200% poverty level. Uninsured population was 62.6% and Medicaid is 33.2%. Patients with hypertension were 17.5% and diabetes 11.5%.
www.ahschicago.org

Rural Health Care, Inc. – Anna, IL
Rural Health served close to 12,000 patients from 7 sites. 9.8% of its patients belong to racial/ethnic minority group – 3.3% Hispanic/Latino, 5% African American. Majority of patients (93.5%) were white. 76.2% of patients were below 200% of Federal Poverty Line. 16.6% were uninsured and 35.9% had Medicaid. Patients with hypertension were 39.7%, diabetes 13.7%, and asthma 3.4%.
www.ruralhealthinc.org

Shawnee Health Service (Shawnee) – Carterville, IL
Shawnee served close to 31,000 patients from 13 sites. Majority (85.4%) of its population were white. Racial/ethnic minority were 17.2%. 97.6% of its population was at or below 200% poverty level. Uninsured rate was 18.1%, Medicaid was 41%, and Medicare was 13.6%. Homeless population was 1,047. Patients with hypertension were 35.9%, diabetes 14.5%, and asthma 5%.
www.shsdc.org

Community Health Improvement Center (CHIC) – Decatur, IL (Now Crossing Healthcare)
CHIC has EHR and is PCMH–accredited. In 2013, it served 15,749 patients with 51% adults (18-64) and 44.5% children. 48.2% of its patient population is white and 58% belong to racial and/or ethnic minority group; 46.3% are African American and 11.2% are Hispanic/Latino. 97.6% of its patients are at or below 200% of poverty. 37.1% were uninsured, 20.2% were uninsured children (0-17), 49.4% were on Medicaid, and 8.6% were on Medicare. CHIC has high percentage of hypertensive patients, which was 36.1% in 2013.
www.crossinghealthcare.org

Esperanza Health Centers – Chicago, IL
Esperanza has EHR and is also PCMH–accredited. In 2013 it served 15,300 patients, with majority of them being adults (18-64) followed by 41.9% of children. 98.2% of its patient population belong to racial and/or ethnic minority group, with majority (91.7%) being Hispanic/Latino. 22.9% of their patients were best served in a language other than English. 90.5% of its patients were at or below 200% of poverty level. 33.7% were uninsured and 54.7% were on Medicaid. 3.9% of its patients were asthmatic in 2013.
www.esperanzachicago.org

VNA Health Care – Aurora, IL
VNA has both EHR and PCMH. In 2013, VNA served 55,880 patients. 34% of its patients are children and 63% are adults (18-64 years). 81% of its patients belonged to racial and/or ethnic minority, with 62% of Hispanic/Latino ethnicity, 14.3% African Americans, and 4% Asians. 25% of its patients are best served in a language other than English. 99.1% of its patients were at or below 200% of poverty. 46% were uninsured and 46.8% were on Medicaid/CHIP. In 2013, 10.2% of its patients were hypertensive and 6.2% diabetic.
www.vnahealth.com

Appendix A – Health Center Information – 2014

Lawndale Christian Health Center – Chicago, IL
Lawndale Christian Health Center has five sites and served 45,570 patients according to UDS 2014 data. Lawndale has EHR and is PCMH recognized. It was recognized as a Health Center Quality Leader from HRSA in 2015. 97.3% of the patient population belongs to a racial and/or ethnic minority with 57.4% being Hispanic/Latino and 40.1% being African American. 38.4% of patients are best served in a language other than English. 98.5% of patients were at or below 200% of poverty level. The uninsured rate was 29.8% and children uninsured (0-17 years) rate was 7.9%. Medicaid rate was 56.2% and Medicare rate was 5.0%. Age distribution of patients include: 58.3% adults, 36.4% children, and 5.3% older adults. In 2014, 14.2% of its patients had hypertension, 14% had diabetes and 8.2% had asthma.
www.lawndale.org

Cass County Health Department – Virginia, IL
The Cass County Health Department (CCHD) has EHR and is PCMH recognized. In 2015, it was awarded the Health Center Quality Leader award from HRSA and it is also a part of the Million Hearts Initiative. In 2014, CCHD served 4,097 patients from their two locations. 79.6% of the patient population was white, 17.8% were Hispanic/Latino, and 4.2% were African American. Age distribution includes: 50.9% children, 43.8% adults, and 5.3% older adults. 94.0% of the patient population lived at or below 200% of the poverty level. 15.7% of patients were uninsured, 60.1% had Medicaid, and 5.7% had Medicare. 40.1% of the patients were diagnosed with hypertension and 16.6% with diabetes.
www.casscohealth.com

Heartland Community Health Clinic – Peoria, IL
Heartland Community Health Clinic is PCMH recognized and also has EHR. According to UDS 2014 data, it served 17,207 patients with 63.5% being adults, 29.4% being children, and 7.1% being older adults. 41.8% of the patient population was white. 60.5% of patients belonged to racial and/or ethnic minority; 52.9% were African American and 8.5% were Hispanic/Latino. 97.3% of patients were at or below 200% of the poverty level in 2014. 14.3% of patients were uninsured, 66.6% had Medicaid, and 10.2% had Medicare. In 2014, 26.1% of its patients were diagnosed with hypertension and 14% with diabetes.
www.hhsil.com

Heartland Health Centers – Chicago, IL
Heartland Health Centers has 15 locations and served 26,096 patients according to UDS 2014 data. Heartland is PCMH certified through The Joint Commission and has EHR. In 2015, it was awarded the Health Center Quality Leader award from HRSA and it is also a part of the Million Hearts Initiative. Age distribution of the patient population includes: 26.7% children, 69.8% adults, and 3.5% older adults. A majority (70.1%) of the patients belong to a racial and/or ethnic minority: 36.2% Hispanic/Latino, 25.5% African American, and 7.7% Asian. 94.6% of patients lived at or below 200% of the poverty level in 2014. 36.3% of patients were uninsured and 18.8% of children were uninsured. 40.5% of patients were on Medicaid/CHIP. 13% of its patients had hypertension and 7.8% diabetes.
www.heartlandhealthcenters.org

Appendix A – Health Center Information – 2015

Community Health Care Inc. – Davenport, IA
Community Health Care, Inc. has EHR and is PCMH-accredited. Community Health Care, Inc. served over 33,000 patients at its 9 sites according to 2015 UDS data. The age distributions of these patients were as follows: 44.5% children, 50.6% adults, and 4.9% older adults. Of the female population, 58.8% were between the ages of 15 and 64. In 2015, 47.5% of patients were white and 56.7% belong to a racial and/or ethnic minority: 18.7% Hispanic/Latino and 31.5% Black/African American. 96.1% of patients were at or below 200% of poverty level. 57.0% of patients were on Medicaid/CHIP and 21.9% were uninsured. The health center received the Health Center Quality Leader award.
http://www.chcqca.org/

Esperanza Health Centers – Chicago, IL
Esperanza Health Centers served close to 18,500 patients at its 3 locations according to 2015 UDS data. Esperanza is PCMH-accredited and utilizes EHR. The health center was awarded the National Quality Leader and Health Center Quality Leader in 2015. Age distribution of the patient population includes: 39.6% children (<18 years old), 56.2% adults (18-64 years old); and 4.3% older adults (65 years and over). The vast majority (96.5%) of the patient population was of a racial/ethnic minority: 91.0% Hispanic/Latino; 9.9% Black/African American; and 0.3% Asian. The majority (98.1%) of the patient population were at or below 200% of the poverty level. In addition, 28.6% of the patients were uninsured and 57.5% were Medicaid/CHIP patients. In 2015, 67.2% of the female population were between the ages of 15 and 44 years old.
http://www.esperanzachicago.org/

PrimeCare Community Health, Inc. – Chicago, IL
In 2015, PrimeCare Community Health, Inc. served more than 21,000 patients at its 8 sites. PrimeCare utilizes EHR and is PCMH-accredited. PrimeCare was awarded the Health Center Quality Leader from HRSA in 2015. Age distribution of patients is as follows: 26.7% children, 66.6% adults, and 6.7% older adults. Of the female population, 73.7% were between the ages of 15 and 64.The majority (85.1%) of patients belonged to a racial and/or ethnic minority: 72.1% Hispanic/Latino; 28.77% Black/African American; 2.4% Asian; and 0.4% American Indian/Alaskan Native. The majority (98.7%) of the patient population were at or below 200% of the poverty level. In addition, 20.2% of patients were uninsured. 49.2% of patients had Medicaid/CHIP; 23.9% had other third party insurance, and 6.8% had Medicare.
https://primecarechi.org/

VNA Health Care – Aurora, IL
In 2015, VNA Health Care served over 60,000 patients from its 10 locations. VNA has EHR, is PCMH-accredited, and is part of the Million Hearts™ initiative. In addition, VNA was awarded the Health Center Quality Leader from HRSA. Age distribution of its patients includes: 34.3% children, 62.8% adults, and 3.0% older adults. Of the female patients, 74.5% were between the ages of 15 and 64. Majority (84.7%) of patients belonged to racial and/or ethnic minority: 64.3% Hispanic/Latino, 14.1% Black/African American and 4.1% Asian. 20.6% of its patients are best served in a language other than English. 99.0% of patients were at or below 200% of the poverty level. 54.3% of patients were on Medicaid/CHIP and 37.0% were uninsured.
http://www.vnahealth.com/

Appendix B – Health Center Stratification by Patient Population Size – 2014

Health Centers Serving <5,000 Patients		
Health Center Name	**Number of Sites**	**Total Patient Population**
Hamdard Center for Health & Human Services	2	783
Preferred Family Health Care, Inc. (MO)	2	1,505
Chestnut Health Systems	1	1,659
Beloved Community Family Wellness Center	3	3,152
Community Nurse Health Center	4	3,908
Knox County Health Department	1	3,938
Cass County Health Department	2	4,097
Macoupin County Public Health Department	2	4,539

Health Centers Serving 5,000 to < 10,000 Patients		
Health Center Name	**Number of Sites**	**Total Patient Population**
Eagle View Community Health System	2	5,623
TCA Health Inc. – NFP	2	6,965
Heartland Health Outreach, Inc.	55	7,661
Asian Human Services Family Health Center, Inc.	3	9,303
Community Health Partnership of Illinois	5	9,717

Health Centers Serving 10,000 to < 20,000 Patients		
Health Center Name	**Number of Sites**	**Total Patient Population**
Rural Health, Inc.	5	10,972
Whiteside County Community Health Clinic	1	12,478
Christian Community Health Center	6	12,569
SIU Center for Family Medicine	1	13,040
Will County Community Health Center	2	14,103
Central Counties Health Centers, Inc.	3	15,443
Community Health Centers of Southeastern Iowa, Inc. (IA)	4	16,163
Heartland Community Health Clinic	5	17,207
Esperanza Health Centers	4	17,241

Appendix B – Health Center Stratification by Patient Population Size – 2014

Health Centers Serving 20,000 to < 40,000 Patients		
Health Center Name	**Number of Sites**	**Total Patient Population**
PrimeCare Community Health, Inc.	5	20,374
Family Christian Health Center	2	21,234
Crossing Healthcare	9	21,633
Alivio Medical Center	7	23,302
Heartland Health Centers	15	26,096
Friend Family Health Center, Inc.	5	27,197
Chicago Family Health Center, Inc.	5	30,235
Shawnee Health Service	11	30,351
Mile Square Health Center	13	30,585
Near North Health Service Corporation	9	34,076
Community Health Care, Inc. (IA)	12	35,305
Greater Elgin Family Care Center	28	37,590
Lake County Health Department/CHC	7	39,155

Health Centers Serving ≥ 40,000 Patients		
Health Center Name	**Number of Sites**	**Total Patient Population**
Christopher Rural Health Planning Corporation	17	45,387
Lawndale Christian Health Center	7	45,570
PCC Community Wellness Center	13	47,418
Crusader Community Health	14	47,787
Aunt Martha's Youth Service Center, Inc.	31	56,802
VNA Health Care	13	59,901
Erie Family Health Center, Inc.	13	61,860
Southern Illinois Healthcare Foundation, Inc.	35	106,054
Access Community Health Network	35	176,389

Appendix B – Health Center Stratification by Patient Population Size – 2015

Health Centers Serving <5,000 Patients		
Health Center Name	**Number of Sites**	**Total Patient Population**
Hamdard Center For Health & Human Services	2	1,654
Chestnut Health Systems	2	2,010
Preferred Family Healthcare Inc. (Mo)	3	3,246
Beloved Community Family Wellness Center	2	3,727
Community Nurse Health Center	2	4,187
Cass County Health Department	2	4,297
Knox County Health Department	1	4,721
Macoupin County Public Health Department	2	4,885

Health Centers Serving 5,000 to < 10,000 Patients		
Health Center Name	Number of Sites	Total Patient Population
Eagle View Community Health System	2	5,018
TCA Health Inc. – NFP	3	7,049
Heartland Health Outreach, Inc.	3	8,972
Asian Human Services Family Health Center, Inc.	4	10,119
Community Health Partnership of Illinois	8	10,981

Health Centers Serving 10,000 to < 20,000 Patients		
Health Center Name	Number of Sites	Total Patient Population
Whiteside County Health Department	2	12,545
Rural Health, Inc.	5	12,652
Will County Community Health Center	2	12,887
Central Counties Health Centers, Inc.	3	13,649
Christian Community Health Center	4	13,398
Community Health Centers of Southeastern Iowa, Inc. (IA)	4	17,459
Heartland Community Health Clinic	5	17,656
Esperanza Health Centers	3	18,517
SIU Center for Family Medicine	1	20,116

Appendix B – Health Center Stratification by Patient Population Size – 2015

Health Centers Serving 20,000 to < 40,000 Patients		
Health Center Name	**Number of Sites**	**Total Patient Population**
Family Christian Health Center	2	20,824
PrimeCare Community Health, Inc.	8	21,091
Alivio Medical Center	6	23,021
Crossing Healthcare	7	25,982
Heartland Health Centers	16	29,609
Shawnee Health Service	12	30,175
Chicago Family Health Center, Inc.	5	30,318
Friend Family Health Center, Inc.	7	30,706
Community Health Care, Inc. (IA)	9	33,095
Near North Health Service Corporation	9	34,736
Mile Square Health Center	12	37,717
Greater Elgin Family Care Center	26	40,666
Lake County Health Department	10	40,322

Health Centers Serving ≥ 40,000 Patients		
Health Center Name	Number of Sites	Total Patient Population
Christopher Rural Health Planning Corporation	11	43,203
PCC Community Wellness Center	12	47,184
Crusader Community Health	6	48,234
Lawndale Christian Health Center	15	49,141
Aunt Martha's Youth Service Center, Inc.	17	49,746
VNA Health Care	10	61,717
Erie Family Health Center, Inc.	13	68,417
Southern Illinois Healthcare Foundation, Inc.	26	101,624
Access Community Health Network	36	180,981

Appendix C – Hypertension Treatment Protocol

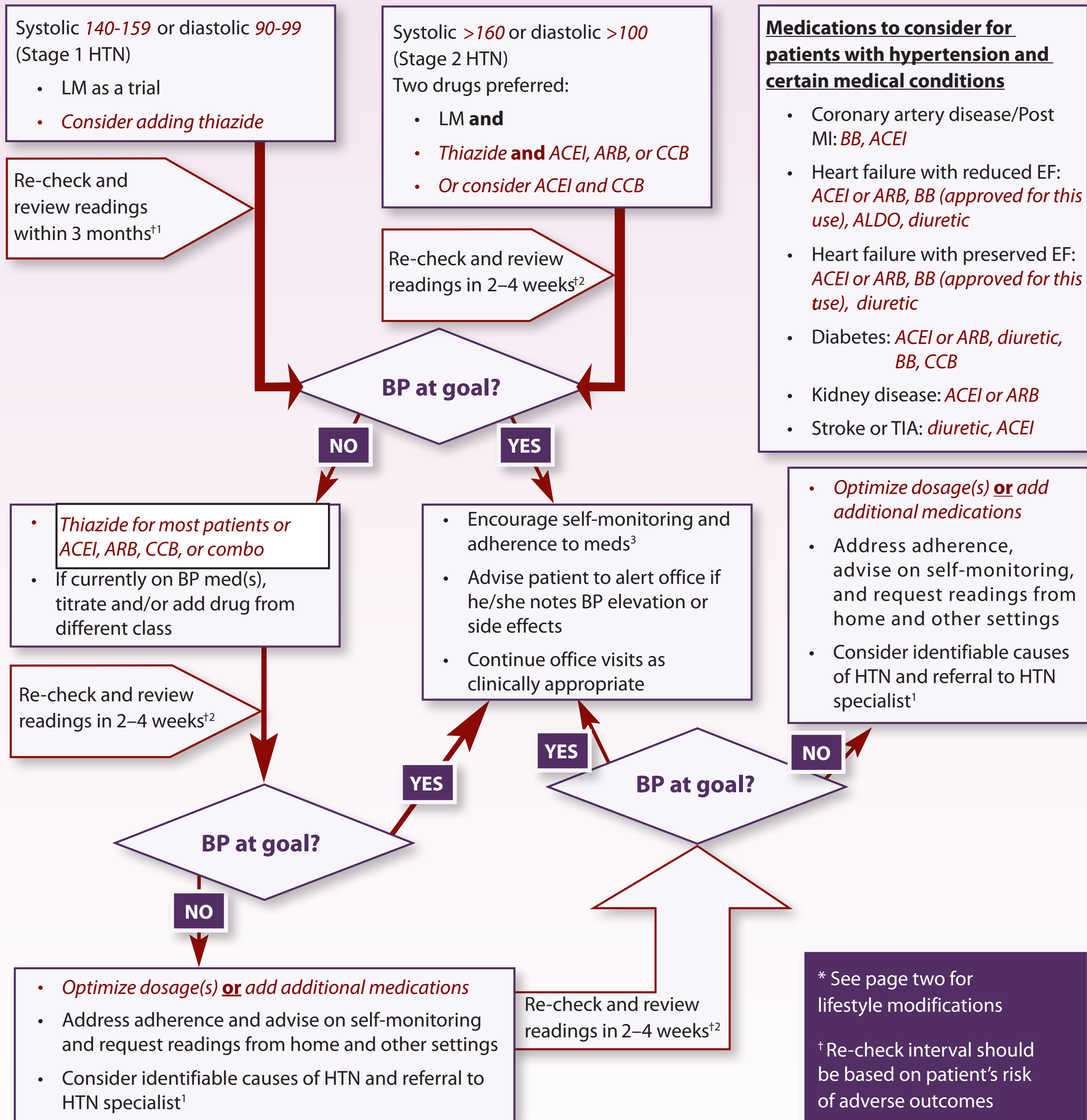
Reset Form

The red, italicized text may be modified by the user to provide specific drug names.

Name of Practice

Protocol for Controlling Hypertension in Adults[1]

The blood pressure (BP) goal is set by a combination of factors including scientific evidence, clinical judgment, and patient tolerance. For most people, the goal is <140 and <90; however some individuals may be better served by other BP goals. Lifestyle modifications (LM)* should be initiated in all patients with hypertension (HTN) and patients should be assessed for target organ damage and existing cardiovascular disease. Self-monitoring is encouraged for most patients throughout their care and requesting and reviewing readings from home and community settings can help in achieving and maintaining good control. For patients with hypertension and certain medical conditions, specific medications should be considered, as listed in the box on the right below.



Print Form Save Form Next Page

Appendix D – The 2015 M.A.P. Checklists for Improving BP Control

The **2015 M.A.P. checklists** for improving BP control

Measure accurately

Screening checklist

When *screening* patients for high blood pressure:

- ☐ Use a validated, automated device to measure BP[1]
- ☐ Use the correct cuff size on a bare arm[2-10]
- ☐ Ensure patient is positioned correctly[2,3,11-19]

Confirmatory checklist

If screening blood pressure is ≥140/90 mm Hg, obtain a *confirmatory* measurement:

- ☐ Repeat *screening* steps above
- ☐ Ensure patient has an empty bladder[2,3,20]
- ☐ Ensure patient has rested quietly for at least five minutes[2,3,21,22]
- ☐ Obtain the average of at least three BP measurements[2,3,23]

Evidence-based tips for correct positioning

Ensure patient is seated comfortably with:
- Back supported
- Arm supported
- Cuff at heart level
- Legs uncrossed
- Feet flat on the ground or supported by a foot stool
- No one talking during measurement

Act rapidly

If patient has blood pressure ≥140/90 mm Hg confirmed:

- ☐ Use an evidence-based protocol to guide treatment[24-26]
- ☐ Re-assess patient every 2–4 weeks until BP is controlled[27-29]
- ☐ Whenever possible, prescribe single-pill combination therapy[30-32]

Evidence-based protocols typically include
- Counsel on and reinforce lifestyle modifications
- Ensure early follow-up and add preferred medications in a step-wise fashion, until BP is controlled
- For most patients, give preference to:
  - Thiazide diuretics
  - *Dihydropyridine* calcium channel blockers
  - ACE inhibitors (ACEI) or
  - Angiotensin receptor blockers (ARB)
- Do not prescribe both ACEI and ARB to same patient
- If BP ≥160/100 mm Hg, start therapy with two medications or a single pill combination

Partner with patients, families and communities

To empower patients to control their blood pressure:

- ☐ Engage patients using evidence-based communication strategies[33-35]
- ☐ Help patients accurately self-measure BP[36,37]
- ☐ Direct patients and families to resources that support medication adherence and healthy lifestyles

Evidence-based communication strategies include
- Begin with *open-ended questions* about adherence, including recent medication use
- *Explore* reasons for possible non-adherence
- *Elicit patient views* on options and priorities to customize a care plan for each patient
- Remain *non-judgmental* at all times
- Use *teach-back* to ensure understanding of the care plan

Evidence-based tips for patient self-measurement of BP
- Instruct patient to measure BP accurately using a validated, automated device and correct positioning for measurement
- Ask patient to record ≥2 morning BP measurements and ≥2 evening BP measurements for ≥ 4 consecutive days between office visits
- Develop a systematic approach to ensure patients can act rapidly to address elevated BP readings between office visits
- Counsel patients that self-measured BP ≥135/85 mm Hg is considered elevated

Evidence-based lifestyle changes to lower BP include
- Following the DASH diet, which is rich in fruits, vegetables and whole grains; low-fat dairy, poultry, fish and plant-based oils; and limits sodium, sweets, sugary drinks, red meat and saturated fats
- Engaging in moderate physical activity, such as brisk walking, for 40 minutes a day at least four days a week
- Maintaining a healthy body mass index (BMI)
- Limiting alcohol to ≤2 drinks/day in men, ≤1 drink/day in women

These checklists are not intended to be comprehensive. Additions and modifications to fit local practice are encouraged.

Appendix E – Diabetes Self-Management Education & Support Algorithm: Action Steps

Diabetes Self-management Education and Support Algorithm: Action Steps

Four critical times to assess, provide, and adjust diabetes self-management education and support

At diagnosis	***Annual*** assessment of education, nutrition, and emotional needs	When new ***complicating factors*** influence self-management	When ***transitions*** in care occur
Primary care provider/endocrinologist/clinical care team: areas of focus and action steps			
❑ Answer questions and provide emotional support regarding diagnosis ❑ Provide overview of treatment and treatment goals ❑ Teach survival skills to address immediate requirements (safe use of medication, hypoglycemia treatment if needed, introduction of eating guidelines) ❑ Identify and discuss resources for education and ongoing support ❑ Make referral for DSME/S and MNT	❑ Assess all areas of self-management ❑ Review problem-solving skills ❑ Identify strengths and challenges of living with diabetes	❑ Identify presence of factors that affect diabetes self-management and attain treatment and behavioral goals ❑ Discuss effect of complications and successes with treatment and self-management	❑ Develop diabetes transition plan ❑ Communicate transition plan to new health care team members ❑ Establish DSME/S regular follow-up care
Diabetes education: areas of focus and action steps			
Assess cultural influences, health beliefs, current knowledge, physical limitations, family support, financial status, medical history, literacy, numeracy to determine content to provide and how: ❑ Medications—choices, action, titration, side effects ❑ Monitoring blood glucose—when to test, interpreting and using glucose pattern management for feedback ❑ Physical activity—safety, short-term vs. long-term goals/recommendations ❑ Preventing, detecting, and treating acute and chronic complications ❑ Nutrition—food plan, planning meals, purchasing food, preparing meals, portioning food ❑ Risk reduction—smoking cessation, foot care ❑ Developing personal strategies to address psychosocial issues and concerns ❑ Developing personal strategies to promote health and behavior change	❑ Review and reinforce treatment goals and self-management needs ❑ Emphasize preventing complications and promoting quality of life ❑ Discuss how to adapt diabetes treatment and self-management to new life situations and competing demands ❑ Support efforts to sustain initial behavior changes and cope with the ongoing burden of diabetes	❑ Provide support for the provision of self-care skills in an effort to delay progression of the disease and prevent new complications ❑ Provide/refer for emotional support for diabetes-related distress and depression ❑ Develop and support personal strategies for behavior change and healthy coping ❑ Develop personal strategies to accommodate sensory or physical limitation(s), adapting to new self-management demands, and promote health and behavior change	❑ Identify needed adaptions in diabetes self-management ❑ Provide support for independent self-management skills and self-efficacy ❑ Identify level of significant other involvement and facilitate education and support ❑ Assist with facing challenges affecting usual level of activity, ability to function, health beliefs, and feelings of well-being ❑ Maximize quality of life and emotional support for the patient (and family members) ❑ Provide education for others now involved in care ❑ Establish communication and follow-up plans with the provider, family, and others

Appendix F – M.A.P. to Prevent Diabetes Prevention for Your Practice

M.A.P. (Measure, Act, Partner)

THE M.A.P. (Measure, Act, Partner) to prevent type 2 diabetes—physicians and care teams can use this document to determine roles and responsibilities for identifying adult patients with prediabetes and referring to community-based diabetes prevention programs. "Point-of-Care" and "Retrospective" methods may be used together or alone.

Choose and check what works best for your practice

Step 1: Measure	When	Who	How (draw from AMA-CDC tools)
Point-of-care method • Assess risk for prediabetes during routine office visit • Test and evaluate blood glucose level based on risk status	• At the front desk • During vital signs	• Receptionist • Medical assistant • Nurse • Physician • Other _______	• Provide "Are you at risk for prediabetes?" patient education handout in waiting area • Use/adapt "Patient flow process" tool • Use CDC or ADA risk assessment questionnaire at check-in • Display 8 x 11" patient-facing poster promoting prediabetes awareness to your patients • Use/adapt "Point-of-care algorithm"
Retrospective method • Query EHR to identify patients with BMI ≥24* and blood glucose level in the prediabetes range	• Every 6–12 months	• Health IT staff • Other _______	• Use/adapt "Retrospective algorithm"
Step 2: Act			
Point-of-care method • Counsel patient re: prediabetes and treatment options during office visit • Refer patient to diabetes prevention program • Share patient contact info with program provider**	• During the visit	• Medical assistant • Nurse • Physician • Other________	• Advise patient using "So you have prediabetes … now what?" handout • Use/adapt "Health care practitioner referral form" • Refer to "Commonly used CPT and ICD codes"
Retrospective method • Inform patient of prediabetes status via mail, email or phone call • Make patient aware of referral and info sharing with program provider • Refer patient to diabetes prevention program • Share patient contact info with program provider**	• Contact patient soon after EHR query	• Health IT staff • Medical assistant (for phone calls) • Other________	• Use/adapt "Patient letter/phone call" template • Use/adapt "Health care practitioner referral form" for making individual referrals • Use/adapt "Business Associate Agreement" template on AMA's website if needed
Step 3: Partner			
With diabetes prevention programs • Engage and communicate with your local diabetes prevention program • Establish process to receive feedback from program about your patients' participation	• Establish contact before making 1st referral	• Office manager • Other________	Use/adapt "Business Associate Agreement" template on AMA's website if needed Refer to "Commonly used CPT and ICD codes"
With patients • Explore motivating factors important to the patient • At follow-up visit, order/review blood tests to determine impact of program and reinforce continued program participation • Discuss program feedback with patient and integrate into care plan	• During office visit • Other________	• Medical assistant • Nurse • Physician • Other________	• Advise patient using "So you have prediabetes … now what?" handout and provide CDC physical activity fact sheet **www.cdc.gov/physicalactivity**

* These BMI levels reflect eligibility for the National DPP as noted in the CDC Diabetes Prevention Recognition Program Standards and Operating Procedures. The American Diabetes Association (ADA) encourages screening for diabetes at a BMI of ≥23 for Asian Americans and ≥25 for non-Asian Americans, and some programs may use the ADA screening criteria for program eligibility. Please check with your diabetes prevention program provider for their specific BMI eligibility requirements.

** To share patient contact information with a diabetes prevention program, you may need a Business Associate Agreement (BAA).

Prevent Diabetes STAT | Screen / Test / Act Today™

PATIENT SELF-ASSESSMENT FORM – ASTHMA

Patient name: ______________________________ Date: ____________________

Since your last visit:

1. Has your asthma been any worse? No ______ Yes ______
2. Have there been any changes in your home, work or school environment (such as a new pet or someone smoking)? No ______ Yes ______
3. Have you had any times when your symptoms were worse than usual? No ______ Yes ______
4. Has your asthma caused you to miss work or school or reduce or change your activities? No ______ Yes ______
5. Have you had any emergency room visits or hospital stays for asthma? No ______ Yes ______
6. Have you missed any regular doses of your medicines for any reason? No ______ Yes ______
7. Have your medications caused you any problems (shakiness, nervousness, bad taste, sore throat, upset stomach)? No ______ Yes ______
8. Please list the medications you currently take for asthma and how often you take each (more than once per day, once per day or less than once per day):

   ____
9. Do you need refills for any medication today? No ______ Yes ______

In the past two weeks:

10. Have you had a cough, wheezing, shortness of breath or chest tightness during:
    the day? No ______ Yes ______
    the night? No ______ Yes ______
    exercise or play? No ______ Yes ______
11. Do you have a peak flow meter? No ______ Yes ______
    How often do you use it? ______ days per week
    What is your personal best? # ______ or Don't know ______
12. How many days have you had to use your rescue inhaler? ______ days
13. Have you been satisfied with the way your asthma has been? No ______ Yes ______
14. What are some concerns or questions you would like to talk about during this visit?

    ____

    ____

Provider's signature: ____

ASTHMA MANAGEMENT FLOW SHEET

Patient name: ______________________________

Environmental triggers: ______________________________

Date of last PPSV shot: ______________ Date of last flu shot: ______________

Date of visit				
Asthma severity mild intermittent = 1 mild persistent = 2 moderate persistent = 3 severe persistent = 4	# ________	# ________	# ________	# ________
Visit type (circle one)	Acute / Maintenance	Acute / Maintenance	Acute / Maintenance	Acute / Maintenance
ED visits since last appointment?	Y / N # ______	Y / N # ______	Y / N # ______	Y / N # ______
Hospitalizations since last appointment?	Y / N # ______	Y / N # ______	Y / N # ______	Y / N # ______
Peak flow	Personal best: ______ Today: ______	Personal best: ______ Today: ______	Personal best: ______ Today: ______	Personal best: ______ Today: ______
Medication changes				
Teaching				
General asthma info	☐	☐	☐	☐
Inhaler use	☐	☐	☐	☐
Environment/triggers	☐	☐	☐	☐
Peak flow use	☐	☐	☐	☐
Spacer use	☐	☐	☐	☐
Reviewed asthma action plan	☐	☐	☐	☐
Other	☐	☐	☐	☐
Planned follow-up (months)				
Comments				
Nurse signature				
Provider signature				

continued ➤

Family Practice Management®

Developed by Ronald Adler, MD, FAAFP, and Jeanne McBride, RN, BSN, MM. Copyright © 2010 AAFP. Physicians may photocopy or adapt for use in their own practices; all other rights reserved. Adler R, McBride J. "Tools and Strategies for Improving Asthma Management." *Fam Pract Manag.* January/February 2010:16-21, http://www.aafp.org/fpm/20100100/p16.

ASTHMA SEVERITY

Severity	Daytime symptoms	Nighttime symptoms	Lung function Peak expiratory flow rate (PEF) or forced expiratory volume (FEV1) (PEF is % of personal best; FEV1 is % predicted)	Long-term control - patients older than 5 years (See below for drugs and dosages; preferred treatment in bold.)	Long-term control - children 5 years or younger (See below for drugs and dosages; preferred treatment in bold.)
Mild intermittent	≤ 2 days/week Exacerbations are brief with varying intensity.	≤ 2 nights/ month	≥ 80% predicted PEF variability < 20%	No daily controller medication indicated. Monitor frequency of use of relief medications.*	No daily controller medication indicated. Monitor frequency of use of relief medications.*
Mild persistent	> 2 times/week but < 1 time/day Exacerbations may affect activity.	> 2 nights/ month	≥ 80% predicted PEF variability 20%-30%	Low-dose inhaled corticosteroids Alternative treatment: cromolyn, leukotriene receptor antagonist (LTRA), nedocromil OR sustained release theophylline to serum concentration 5-15 mcg/mL	Low-dose inhaled corticosteroids Alternative treatment: cromolyn OR LTRA
Moderate persistent	Daily use of inhaled short-acting beta-agonist. Exacerbations occur ≥ 2 times/ week and affect activity.	> 1 night/week	61%-80% predicted PEF variability > 30%	Low- to medium-dose inhaled corticosteroids AND long-acting beta-agonist (LABA) Alternative treatment: Increase inhaled steroids within medium-dose range OR low- to medium-dose inhaled corticosteroids and either LTRA or theophylline	Low-dose inhaled corticosteroids AND LABA OR medium-dose inhaled corticosteroids Alternative treatment: Low-dose inhaled corticosteroids and either LTRA or theophylline
Severe persistent	Continual Exacerbations are frequent and limit physical activity.	Frequent	≤ 60% predicted PEF variability > 30%	High-dose inhaled corticosteroids AND LABA AND, if needed, corticosteroid tablets or syrup 2 mg/kg/day; generally do not exceed 60 mg/day	High-dose inhaled corticosteroids AND LABA AND, if needed, corticosteroid tablets or syrup 2 mg/kg/day; generally do not exceed 60 mg/day

LONG-TERM THERAPY

	Low daily dose		Medium daily dose		High daily dose	
Drug	**Adult**	**Child**	**Adult**	**Child**	**Adult**	**Child**
Fluticasone MDI: 44, 110 or 220 mcg/puff	88-264 mcg	88-176 mcg	264-660 mcg	176-440 mcg	> 660 mcg	> 440 mcg
Budesonide DPI: 200 mcg/inhalation	200-600 mcg	200-400 mcg	600-1200 mcg	400-800 mcg	> 1200 mcg	> 800 mcg
Fluticasone/ salmeterol DPI: 100, 250, 500 mcg/50 mcg	100-300 mcg (fluticasone)	100-200 mcg (fluticasone)	300-600 mcg (fluticasone)	200-400 mcg (fluticasone)	> 600 mcg (fluticasone)	> 400 mcg (fluticasone)

Relative strengths: fluticasone > budesonide = beclomethasone > flunisolide = triamcinolone

Systemic bioavailability (contributes to side effects): 20% - triamcinolone, flunisolide and beclomethasone; 11% - budesonide; and 1% - fluticasone

Quick relief (patients older than 5 years): short-acting bronchodilator, 2-4 puffs as needed for symptoms; up to 3 treatments at a 20-minute interval, or a single nebulizer treatment as needed.

Quick relief (children 5 years or younger): short-acting inhaled beta-agonist by nebulizer or face mask and spacer/holding chamber; alternative treatment: oral beta-agonist.

* Use of short-acting beta-agonists > 2 times a week in intermittent asthma (or daily or increasing use in persistent asthma) may indicate a need for long-term therapy.

18 | FAMILY PRACTICE MANAGEMENT | www.aafp.org/fpm | January/February 2010

Linking to Care

Client ID ______________________

Date ______________________

You can get free, high-quality care if you're HIV-positive, even if you don't have health insurance. We'll talk more about your healthcare in a few minutes. First, we all need people to give us help and encouragement in times of stress.

- Who would you count as your support system? This might include friends, family, a boyfriend/girlfriend, a spouse, or a partner.
- Would you feel comfortable talking about your health with any of these people?
  - ↳ *If yes:* Who?
- Would you like me to help you find someone to talk to?

It's hard for all of us to take care of our health when we have other things going on.

- Do you feel like you have enough money to take care of your basic needs?
- Where are you sleeping right now?
- Is there anything going on in your life that might make it hard to get to the doctor?

Remember, you can get HIV care even if you don't have health insurance. New research tells us that treating HIV as soon as possible can help people to stay healthy and lead better lives.

- Do you have any kind of health insurance?
  - ↳ *If yes:* What kind?
  - ↳ *If no:* Would you like help getting insurance?
- Do you already have a place where you get healthcare?
  - ↳ *If yes:* Do you think you would be comfortable continuing to go there?
  - ↳ *If no:* We can refer you to another medical provider.

Notes

____

____

____

____

____

____

____

____

____

____

____

____

Referrals Made

____

____

____

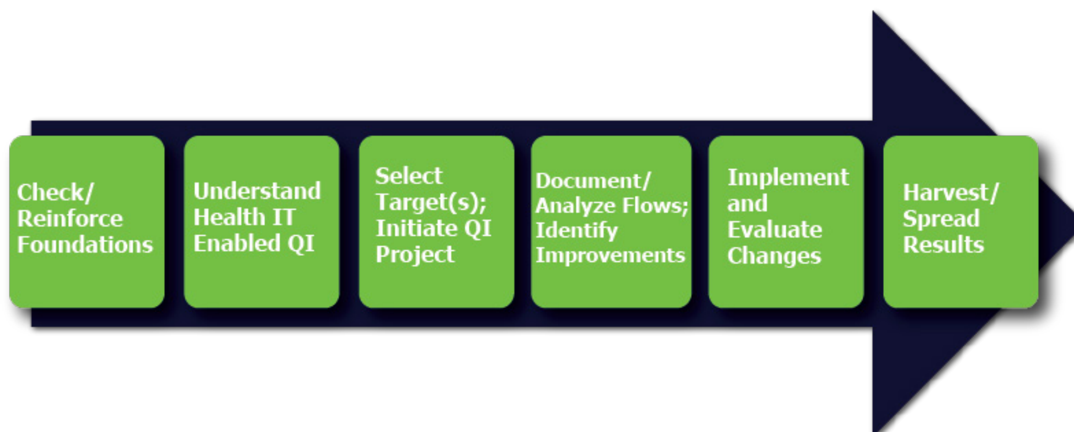
____

Questions or comments about this tool?
Email us at info@hivphilly.org
or call us at (215) 574-6760

Office of HIV Planning Philadelphia
WWW.HIVPHILLY.ORG

HEALTH IT ENABLED QUALITY IMPROVEMENT:
A GUIDE TO IMPROVING CARE PROCESSES AND OUTCOMES

Available on HITEQCenter.org



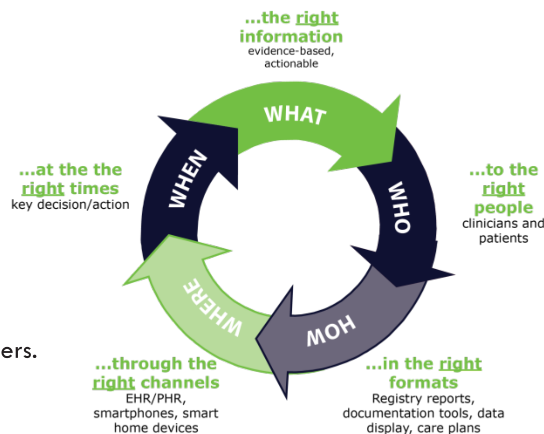
[1]

CHECK/ REINFORCE FOUNDATIONS

- Cultivate shared commitment and shared understanding
- Ensure leadership support and buy-in from the whole team
- Ensure access to and validate data that will underpin the QI efforts.
- Ensure stable and reliable health IT systems (including people, processes, and technology related to systems)
    - **Recommended tools, all available on HITEQcenter.org, under Health IT Enabled QI :**
        - Health IT enabled Quality Improvement Project Charter: The first step in a QI project (link)
        - Accessing your Data: Questions to Consider with your EHR vendor (link)
        - Analytics Capability Assessment, *from Center for Care Innovations* (link)
        - Health Center Data Validation Tool (link for Adult BMI, others coming to HITEQCenter.org)

UNDERSTAND HEALTH IT ENABLED QUALITY IMPROVEMENT

- Everyone participating in the QI work should have a shared understanding of key definitions, frameworks (e.g., CDS 5 Rights, below), strategies (e.g., the QI process outlined under the Implement and Evaluate Changes heading.), tools (e.g., Essential CDS/QI Worksheet), and key QI project success factors.



[1] Osheroff, Jerome A. "Improving Care Processes and Outcomes in Health Centers. HRSA Health Information Technology, Evaluation and Quality Center. 9 Sept. 2016. Web. 21 Nov. 2016

The HITEQ Center is supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) under grant number U30CS29366 titled Training and Technical Assistance National Cooperative Agreements (NCAs) for grant amount $500,000. This information or content and conclusions are those of the author and should not be construed as the official position or policy of, nor should any endorsements be inferred by HRSA, HHS or the U.S. Government.

- The CDS 5 Rights framework, a recommended CMS best practice QI approach to support decisions and actions that drive performance targeted for improvement, says that improving care processes for optimal outcomes requires getting the **right information** to the **right people** in the **right formats** through the **right channels** at the **right times.**[2]
- Be sure to consider people, processes, and technology, *in that order!*, when considering processes and engaging in quality improvement. Improvement to care processes and other quality drivers must be done WITH people, not to them.
  - **Recommended tools,**
    all available on HITEQcenter.org, under Health IT Enabled QI :
    - Guide to Improving Care Processes and Outcomes in Health Centers (link)

SELECTING QUALITY IMPROVEMENT TARGET, INITIATE QI PROJECT

- What quality improvement target should be selected? Consider the following:
  - **Business imperatives,** such as value-based payment initiatives or awards (such as HRSA Quality Leader or Technology awards).
  - Seek **QI synergies** with pertinent initiatives such as PCMH recognition and HRSA Health Center Quality Improvement Grant Awards.
  - Those measures or outcomes that have experienced unexpected **change in performance**
  - **Operational initiatives** such as:
    - Behavioral health integration
    - Oral health integration
    - Collecting and operationalizing sexual orientation/ gender identity data
    - Collecting and operationalizing social determinants of health data
- Document the selected target, including specific quality measure when possible as well as time period, specific population, and so on. Also document current performance.
  - **Recommended tools,**
    all available on HITEQcenter.org, under Health IT Enabled QI :
    - Prioritization Matrix, to select from multiple target options (link)
    - Document selected target in first section (target and current performance) of Essential CDS/ QI Worksheet (link)

DOCUMENT AND ANALYZE FLOWS, IDENTIFY IMPROVEMENTS

- Consider the following questions about workflow and information flow, as it relates to your selected target:
  - **What are we currently doing?** What are we trying to improve and what is the baseline? [using analytics]
  - **What should we be doing** to produce better processes and results? [using best practices]

[2] TMIT Consulting, 2016.

The HITEQ Center is supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) under grant number U30CS29366 titled Training and Technical Assistance National Cooperative Agreements (NCAs) for grant amount $500,000. This information or content and conclusions are those of the author and should not be construed as the official position or policy of, nor should any endorsements be inferred by HRSA, HHS or the U.S. Government.

  - **What changes might we make** to produce better processes and results? [adoption]

- Consider **individual patient activities,** such as what is done to support the given target when the patient is in the clinic, as well as **population management activities,** such as tools or activities used to identify and address care gaps across the patient panel, and **foundational activities,** such as the health IT systems, policies, and protocols that support all activities in the health center.
  - **Recommended tools,**
    all available on HITEQcenter.org, under Health IT Enabled QI :
    - Collaboratively, with your team representing all stakeholders, document ***What are we currently doing*** *[related to our selected target]***?** in the Current Workflow/ Information Flow lines of the Essential CDS/ QI Worksheet (link)
      - Complete the Individual Patient Activities section, in Orange, as well as Population Management activities, in Blue, and Foundational Activities, in Green of the worksheet, as each section relates to your selected target.
    - Document ***What should we be doing?*** in the Potential Enhancement lines of the Essential CDS/ QI Worksheet (link)
      - When considering improvements/ potential enhancements using this worksheet, consider the following:
        - Cells or sections where the current flow is not known
        - Instances where stakeholders are not aligned on processes (i.e. different providers or care teams do different things or have different workflows)
        - Instances where no policy/ protocol is in place
        - Instances where the 5 Rights are not well orchestrated; i.e. the right information is not available at the right time through the right channels
        - Instances where policies and workflows are in place, but outcomes are still suboptimal– are there population factors?

IMPLEMENT AND EVALUATE CHANGES

- Using a QI methodology such as PDSA cycles, engage frontline staff and all key stakeholders in care processes and results to design, implement and evaluate one selected enhancement.
  - Be sure to do this work **with** all the stakeholders and not **to** them (i.e., seek and act on team member and patient input and feedback throughout the process).
- Monitor implementation activities with structured tools that help you document and manage who's doing what when, as well as the results.
- Evaluate the impact of the change based on results and feedback from those involved, determine final action related to the tested enhancement: adopt, adapt, or abandon.

  Recommended tools:
  - For assistance in selecting one potential enhancement to test first, use the prioritization matrix again.
  - PDSA Worksheet, such as this one from Oregon Primary Care Association, or this one from the Institute for Healthcare Improvement
  - Data collection tools and plan for monitoring, such as these from Oregon Primary Care Association
  - Monitoring Worksheets from Chapter 8: Putting Interventions into Action and Chapter 9: Measuring Results and Continuously Refining the Program in "Improving Outcomes with Clinical Decision Support: An Implementer's Guide. Second Edition" provided with permission from HIMSS

The HITEQ Center is supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) under grant number U30CS29366 titled Training and Technical Assistance National Cooperative Agreements (NCAs) for grant amount $500,000. This information or content and conclusions are those of the author and should not be construed as the official position or policy of, nor should any endorsements be inferred by HRSA, HHS or the U.S. Government.

IMPLEMENT AND EVALUATE CHANGES

- Apply this learning and these results to strengthen ongoing 'maintenance' efforts on the current target and other target-focused QI initiatives.
  - Transition target-related QI efforts from 'project-focused' to 'this is how we do business.' Build in ability to detect the need for, and implement, tweaks to target-related processes when required because of changes to people/processes/technology.
    - i.e., Feedback loops!
  - Be sure to incorporate the insights and results from each QI project into subsequent QI initiatives. Although a particular target-focused QI project may be time-limited, the QI and clinical teams should remain alert for ways to continually improve care across all targets.
    - For example, learning from a QI project might indicate opportunities to more broadly modify clinical and quality work and roles, as well as health IT configurations or integrations.

Recommended tools/ references:

- Harnessing the Power of Feedback Loops, Wired.com.
- Zikmund-Fisher BJ, et al. Graphics help patients distinguish between urgent and non-urgent deviations in laboratory test results. *Journal of the American Medical Informatics Association* 2017;24(3):520-528.
- Developing Effective Data Dashboards, a primer on a process and tips in developing a data dashboard from HITQ.
- Data Monitoring: Population Health Data Strategies (Webinar)
- Worth a Thousand Words: How to Display Health Data from California Healthcare Foundation

The HITEQ Center is supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) under grant number U30CS29366 titled Training and Technical Assistance National Cooperative Agreements (NCAs) for grant amount $500,000. This information or content and conclusions are those of the author and should not be construed as the official position or policy of, nor should any endorsements be inferred by HRSA, HHS or the U.S. Government.

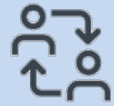
6 Steps to Creating a Culture of Person and Family Engagement

The culture of a practice encompasses its attitudes, behaviors, practices and norms. The six steps below are designed to guide genuine transformation in culture to promote person and family engagement.

Engage Leaders

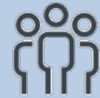
Leadership sets the tone for any organizational culture. Through words and actions, it falls to leaders to cultivate a supportive and trusting workplace culture, facilitate a continuous learning environment, and ensure that person and family engagement is integrated into organizational structure and strategy.

Enlist Patients and Families as Partners



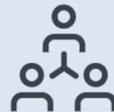
Create systems and processes to harness insights from patients and families about their experiences, gaps in care, and opportunities for continuous improvement. Examples include focus groups, participation on practice improvement teams, and patient and family advisory councils.

Empower and Energize Staff



Joy in practices is created in part by feeling a sense of purpose that transcends specific tasks. To create this shared purpose, reserve time for staff to share stories of the positive impact they have made on patients' lives. Introduce systems that invite all staff to participate in improving care and making the practice a better place to work.

Encourage Family Participation in Care



Family can be a vital source of continuity and coordination across episodes and settings of care. Invite patients to identify a family Care Partner. Then, elicit Care Partners' observations and questions during visits. Equip Care Partners with tools for monitoring their loved one's health and managing their care.

Equip, Enable and Support Patients to Engage

Patients' goals, preferences and cultural norms cannot be integrated into care without their engagement in treatment planning and self-management. Adopt strategies such as teach back, medication management, and shared decision-making to support patients to become active members of the care team.

Emphasize PFE in All You Do

Person and family engagement isn't *one more thing to do*. It is the tie that binds all that you do together. With patients and family members as advisors, consider ways to modify the physical environment to promote engagement. Seek out community partners that will enable you to better engage patients and their family caregivers where they live, work, learn, worship and play.

© 2017 Planetree - may be reproduced for non-commercial purposes

Appendix K - The Joint Commission Health Literacy & Self-Management Tools

Appendix G – The Joint Commission Health Literacy and Self-Management Tools

Health Literacy

AHRQ defines Health literacy is the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions.

Differences in health literacy level were consistently associated with increased hospitalizations, greater emergency care use, lower use of mammography, lower receipt of influenza vaccine, poorer ability to demonstrate taking medications appropriately, poorer ability to interpret labels and health messages, and, among seniors, poorer overall health status and higher mortality.

Sample Screening Tools for Health Literacy:

Rapid Estimate of Adult Literacy in Medicine—Short Form (REALM-SF)

The Rapid Estimate of Adult Literacy in Medicine—Short Form (REALM-SF) is a 7-item word recognition test to provide clinicians with a valid quick assessment of patient health literacy.

The REALM-SF has been validated and field tested in diverse research setting, and has excellent agreement with the 66-item REALM instrument in terms of grade-level assignments.

SAHLSA (Short Assessment of Health Literacy for Spanish-speaking Adults)

The SAHLSA consists of a word-recognition section, designed after the REALM, in addition to a comprehension test that employs multiple choice questions. It was designed to assess the health literacy for adults who speak Spanish.

SILS (Single Item Literacy Screener)

The SILS is a single item instrument designed to identify patients who need help with reading health-related information. The instrument asks one question "How often do you need to have someone help you when you read instructions, pamphlets, or other written material from your doctor or pharmacy?" with possible responses ranging from "1" (never) to "5" (always).

In this primary care population, one in six had limited reading ability. With the known negative impact of limited reading ability on health outcomes, enhancing communication for this population is critical. The SILS performs moderately well at ruling out limited reading ability in adults and allows providers to target additional assessment to those most in need. Application of the SILS in clinical settings has the potential to improve outcomes and processes of care for chronically ill individuals with limited reading ability.

S-TOFHLA

The S-TOFHLA, a 7-minute test, with 36 reading comprehension items in 2 passages. The passages on the S-TOFHLA use a modified Cloze procedure where every fifth to seventh word is omitted and subjects select the correct word from among a set of four options. The passages contain information about an upper qastrointestinal tract x-ray procedure, and the "Rights and Responsibilities" section from a Medicaid application, Each selection is scored a "1" for correct or a "0" for incorrect and scores are summed over items to create a total score. The 36-point scale of the S-TOFHLA is divided into three categories of functional literacy: inadequate (0-16), adequate (17-22) and functional (23-36)

In early developmental studies, the reading comprehension passages in the S-TOFHLA had a reliability coefficient of 0.97 and correlation with the Rapid Estimate of Adult Literacy in Medicine (REALM) of 0.81.

NVS (Newest Vital Sign)

The NVS consists of a nutrition label with 6 accompanying questions to assess literacy. It takes approximately 3 minutes to administer, and is meant to allow healthcare providers to make a quick assessment of patients' literacy, which can then allow them to adapt communication to achieve better outcomes. It assesses literacy and numeracy, and is available in both English and Spanish versions.

Since the *Newest Vital Sign* was published in the *Annals of Family Medicine* (December 2005), it has appeared in more than 25 peer-reviewed studies. The NVS has been used to assess health literacy in populations ranging from parents of young children to older adults, among racial/ethnic minorities, and applied to a wide variety of health conditions.

(Measuring Adult Literacy in Health Care: Performance of the newest Vital Sign, Am. J Health Behav 2007)

"In comparison to the REALM and the S-TOFHLA, the NVS – which was developed as a screening tool – has high sensitivity for detecting limited literacy. Its specificity varies depending on whether the REALM or S-TOFHLA is used as the comparison standard. The performance of the NVS in both of these studies suggests it may be useful as a clinical screening tool when high sensitivity is acceptable, but less in research settings that require precision in measurement. It should be noted that health literacy experts do not currently recommend literacy screening in the clinical setting unless healthcare professionals and the healthcare system are willing to implement communication strategies appropriate for patients with limited literacy."

"In this set of studies, we found the NVS to be more strongly correlated with the S-TOFHLA than the REALM. The NVS was also not found to be associated with health knowledge or outcomes, whereas the S-TOFHLA was linked to these variables. This gives the S-TOFHLA a stronger predictive validity than the NVS, which should be considered when deciding which instrument to use for research purposes."

Used with Permission from The Joint Commission

SMART Goals

People who choose their own goals with support of our office do better with long term diseases. What is the one thing you would like to do to improve your health?

Examples of things you can do include…

Eating Plan

Take Medication Properly

Quit Smoking

Exercise

Reduce Alcohol Intake

Reduce Stress

Reduce Salt

Weight Reduction

Self-Monitoring

Other

WHAT will you do?

____

____

WHEN will you do it?

____

____

WHERE will you do it?

____

____

HOW will you do it?

____

____

On a scale from 0 to 10:

How important is this to you? _____
How confident are you that you can achieve your goal? _____

Things that could make it difficult for you to reach your goal:

____

My plan for overcoming these difficulties:

____

Checking your progress toward reaching your goal is important for your success. Our plan to follow-up with you is: ______________________________

Everyday is a new chance to do something good for yourself!

Specific Measurable Action-oriented Realistic Time-specific (SMART goals)

Copyright©2010 by Professional Resources Group & Administrative Network, Inc

Used with Permission from The Joint Commission

METAS INTELIGENTES

Las personas que eligen sus propios metas con el apoyo de su doctor y su equipo médico pueden llevar mejor las enfermedades a largo plazo. ¿Qué es la una cosa que usted querría hacer para mejorar su salud?

Ejemplos de las cosas usted puede incluye...

Dieta

Tome Su Medicina Apropiadamente

Deje de Fumar

Ejercicio

Reduzca La Ingestion de Alcohol

Reduzca La Tension

Reduzca La Sal en Su Dieta

Pierda Peso

De AutoControl

Otro

¿QUE haría usted?

____

____

¿CUANDO lo haría usted?

____

____

¿DONDE lo haría usted?

____

____

¿COMO lo haría usted?

____

____

¿En la escala de 0 a 10, con que seguridad puede usted conseguir su objetivo? ___

Las cosas que podrían hacer difícil para usted alcanzar su objetivo:

____

Tu plan para vencer estas dificultades:

____

Verificar su progreso hacia alcanzar su objetivo es importante para su éxito. Nuestro plan al seguimiento con usted es: ______________________________

¡Diario es una nueva oportunidad de hacer algo bueno para usted mismo!

Copyright© 2009 by Professional Resources Group

PCMH 4.09.1230

Used with Permission from The Joint Commission

Appendix K - The Joint Commission Health Literacy & Self-Management Tools

GOOD HABITS!

Habit:__________________

Start:__________________

Goal Date:______________

Achieved:_______________

Mark off a # for each day you accomplish your goal. If you miss a day, start over. When you have successfully completed 21 days in a row your goal will have become a good habit.

TRIAL #1:

1 2 3 4 5 6 7
8 9 10 11 12 13 14
15 16 17 18 19 20 21

TRIAL #2:

1 2 3 4 5 6 7
8 9 10 11 12 13 14
15 16 17 18 19 20 21

TRIAL #3:

1 2 3 4 5 6 7
8 9 10 11 12 13 14
15 16 17 18 19 20 21

By Rachel Woods, LDS Guide
http://lds.about.com

GOOD HABITS!

Habit:__________________

Start:__________________

Goal Date:______________

Achieved:_______________

Mark off a # for each day you accomplish your goal. If you miss a day, start over. When you have successfully completed 21 days in a row your goal will have become a good habit.

TRIAL #1:

1 2 3 4 5 6 7
8 9 10 11 12 13 14
15 16 17 18 19 20 21

TRIAL #2:

1 2 3 4 5 6 7
8 9 10 11 12 13 14
15 16 17 18 19 20 21

TRIAL #3:

1 2 3 4 5 6 7
8 9 10 11 12 13 14
15 16 17 18 19 20 21

By Rachel Woods, LDS Guide
http://lds.about.com

GOOD HABITS!

Habit:__________________

Start:__________________

Goal Date:______________

Achieved:_______________

Mark off a # for each day you accomplish your goal. If you miss a day, start over. When you have successfully completed 21 days in a row your goal will have become a good habit.

TRIAL #1:

1 2 3 4 5 6 7
8 9 10 11 12 13 14
15 16 17 18 19 20 21

TRIAL #2:

1 2 3 4 5 6 7
8 9 10 11 12 13 14
15 16 17 18 19 20 21

TRIAL #3:

1 2 3 4 5 6 7
8 9 10 11 12 13 14
15 16 17 18 19 20 21

By Rachel Woods, LDS Guide
http://lds.about.com

GOOD HABITS!

Habit:__________________

Start:__________________

Goal Date:______________

Achieved:_______________

Mark off a # for each day you accomplish your goal. If you miss a day, start over. When you have successfully completed 21 days in a row your goal will have become a good habit.

TRIAL #1:

1 2 3 4 5 6 7
8 9 10 11 12 13 14
15 16 17 18 19 20 21

TRIAL #2:

1 2 3 4 5 6 7
8 9 10 11 12 13 14
15 16 17 18 19 20 21

TRIAL #3:

1 2 3 4 5 6 7
8 9 10 11 12 13 14
15 16 17 18 19 20 21

By Rachel Woods, LDS Guide
http://lds.about.com

Used with Permission from The Joint Commission

DOs and DON'Ts for the Initial Conversation about Prediabetes

If a patient has been identified as having prediabetes, the leader of the health care team (physician, nurse practitioner, or physician assistant) should engage the patient in a discussion about the diagnosis. Below are some recommended DOs and DON'Ts for this patient encounter:

DOs	DON'Ts
Do use the term prediabetes.	Don't use the terms "borderline diabetes," "touch of sugar," or say the sugar is "a little high."
Do ask for the patient's questions, concerns, and feelings.	Don't assume you know how the patient is reacting.
Do emphasize the significance of having prediabetes. Explain how this is different from type 2 diabetes, and offer hope for preventing or delaying the diagnosis of type 2 diabetes. Ask what questions or concerns the patient has.	Don't assume all patients will understand this message in the same way. Some patients hear "diabetes" and experience immediate stress; others hear only "pre" and feel tremendous relief. Both of these reactions make it hard for a patient to listen and understand the remainder of your message.
Do tell the patient that having prediabetes means he or she has a much higher chance of developing type 2 diabetes in the coming years.	Don't tell the patient it is just something to "keep an eye on" or monitor at the next visit. Conversely, don't have a lengthy discussion about risk percentages, which is confusing to many people.
Do explain that he or she has a strong chance to prevent or delay type 2 diabetes by losing just a modest amount of weight (10 to 15 pounds), being more active, and, in some cases, taking medication.	Don't tell the patient there isn't much that can be done. Don't say or imply that these changes are easy to make.
Do include older adults as a key target group, encouraging them to make manageable lifestyle changes to prevent diabetes.	Don't assume older adults won't make lifestyle changes or that older adults won't experience the benefits of chronic illness prevention because of their advanced age. In the NIH-sponsored DPP, a greater percentage of older adults (> 60 years) made successful lifestyle changes and delayed diabetes onset compared with younger adults.
Do emphasize that the lifestyle change program used in the NIH-sponsored DPP was effective for all ages and ethnicities that participated.	Do not exclude groups that you think may not benefit as much, such as Asian Americans, American Indians, Alaska Natives, African Americans, or Hispanic/Latinos.
Do expect that people can change their behaviors no matter where they start.	Do not have pre-conceived ideas about an individual's success in changing.
Do strongly encourage referral to another team member, community program, or other resource to assist each patient in ongoing steps to prevent type 2 diabetes.	Don't tell the patient to lose weight and increase their physical activity without offering specific resources, behavioral strategies, support, and follow-up.
Do rely on the proven goals and intervention methods used in the NIH-sponsored DPP. For example, ask patients to identify one specific step they will take to reach their goals.	Don't recommend unrealistic or ineffective goals.
Do use the "Teach-back" method to quickly assess a patient's understanding.	Don't assume the patient understands or simply ask "Do you understand?"

Health care teams should emphasize to patients with prediabetes that the evidence shows they can prevent or delay type 2 diabetes by making specific lifestyle changes. To support prevention messages, NDEP offers multiple publications about prediabetes tailored to specific audiences.

NDEP National Diabetes Education Program

A program of the National Institutes of Health and the Centers for Disease Control and Prevention