

Assessing Circumstances and Offering Resources for Needs (ACORN)

Fiscal Year 2023 Annual Report



Assessing Circumstances and Offering Resources for Needs (ACORN) – Fiscal Year 2023 Annual Report

Prepared for:

Office of Health Equity Veterans Health Administration Washington, DC



Prepared by:

Lauren E. Russell, MPH, MPP1

Sydney C. Ruggles, MA, MS²

Kathleen M. Mitchell, MPH²

Meaghan A. Kennedy, MD, MPH²

Alicia J. Cohen, MD, MSc, FAAFP³

Data Analyst: Christopher Halladay, ScM³

Acknowledgements: The following partners and collaborators provided valuable feedback on this report: Ernest Moy, MD, MPH; Andrea Berkheimer, LCSW; John Boerstler; Sara Bozeman, PhD, RYT-200; Caitlin Celardo, LCSW; Jill DeBord, LCSW; Timothy Doherty, MSW; Amy Donaldson, LCSW; Reena Duseja, MD, MS; Tosha Ellis, PhD, LCSW, BCD, CMIP, NBC-HWC; Alita Harmon, LCSW; Catherine Hoang, MS, RN, FAMIA; Kenneth Jones, MSW, PhD; Sarita Keni, MD, MA, FAMIA; John Kilbourne, MD; Benjamin Kligler, MD, MPH; Jennifer Koget, MS, LCSW, BCD; Shane Lamba, MPH; Sarah Leder, MSW; Catherine Porter, PhD; Jennifer W. Silva, LCSW-S; Brittany Trabaris, LCSW; Tracy L. Weistreich, PhD, RN, NEA-BC, NPD-BC, VHA-CM; and Lisa Wootton, LCSW.

Funding: Initial funding for ACORN was provided by the VHA Innovators Network Spark-Seed-Spread Innovation Investment Program in 2018. The VHA Office of Health Equity has funded the continued implementation and evaluation of ACORN since 2019. Alicia J. Cohen's effort on ACORN was additionally supported by a VA HSR&D Career Development Award (CDA 20-037).



¹ Office of Health Equity, Veterans Health Administration

² New England Geriatric Research, Education, and Clinical Center, VA Bedford Healthcare System

³ Health Services Research & Development Center of Excellence in Long Term Services and Supports, VA Providence Healthcare System

Suggested Citation:

Russell LE, Ruggles SC, Mitchell KM, Kennedy MA, Cohen AJ. "Assessing Circumstances and Offering Resources for Needs (ACORN) – Fiscal Year 2023 Annual Report." U.S. Department of Veterans Affairs, December 2023. https://www.va.gov/HEALTHEQUITY/docs/ACORN_Annual_Report_FY2023.pdf

(Authors contributed equally to the preparation of this report.)

EXECUTIVE SUMMARY

Assessing Circumstances and Offering Resources for Needs (ACORN) is a Veterans Health Administration (VHA) quality improvement initiative implemented in partnership with the Office of Health Equity and the National Social Work Program, Care Management and Social Work Services.

ACORN aims to improve health outcomes and promote health equity among Veterans by identifying and addressing social risks and social needs.

ACORN consists of a nine-domain social risk screener for use in VHA clinical settings, and the provision of relevant resources and referrals to address identified needs. First developed and piloted in 2018, ACORN has since spread to 27 VHA facilities across a variety of clinical settings and programs.



FY 2023 Activities

Our efforts in fiscal year (FY) 2023 focused on building tools and infrastructure to support wider dissemination of ACORN. Major activities over the past year include:

Activity 1:

Developing and launching a Community of Practice model to support new and established ACORN sites

Activity 5:

Bringing together
operations and research
partners for a Health Services
Research & Developmentfunded ACORN Field-Based
Meeting



Activity 4:

Convening the ACORN Partner Engagement Group to provide feedback and guidance to the ACORN Leadership Team

Activity 2:

Updating and submitting the ACORN VA electronic health record template for review by the National Clinical Template Workgroup

Activity 3:

Centralizing ACORN data collection, analysis, and evaluation, and developing the ACORN Dashboard

In addition to these core activities, we collaborated with VA and external partners on several initiatives to ensure alignment of ACORN with national data capture and interoperability standards.

Program Evaluation

Program evaluation for FY 2023 consisted of systematic review of data from ACORN Partner Sites participating in the Community of Practice and Veteran screening data from the electronic health record. At the close of the fiscal year, 36 sites had joined the Community of Practice, 27 of which were actively screening. Sites reported screening in a variety of clinical settings, by a range of staff, and both in-person and remotely (i.e., phone, video telehealth). Sites described being satisfied with both the Community of Practice and technical support offered for ACORN implementation.

A total of 6,225 ACORN screens were performed by ACORN Partner Sites in FY 2023, with a nearly four-fold increase in monthly screens performed between October 2022 and September 2023. Approximately 71% of screens were positive in one or more social risk domains, with digital needs, social isolation/loneliness, and food insecurity being the most common positive domains. Veterans screening positive were provided geographically tailored resource guides, support navigating VA and community resources, and/or referrals to Social Work or other relevant services to address identified needs.

FY 2024 Goals

Looking towards FY 2024, we aim to further disseminate ACORN across VHA clinical settings, supported by growth of the Community of Practice and release of the ACORN National Template in the VA electronic health record (VA EHR). Evaluation efforts will focus on assessment of barriers and facilitators to successful implementation to enhance our understanding of best practices and resources needed by sites.

We sincerely thank the ACORN Partner Sites, operations and research collaborators, and Veterans whose support and collaboration have made this work possible.



36
sites joined the
ACORN Community
of Practice

sites completed
ACORN screens with
Veterans

6,225
ACORN screens completed

increase in monthly screens

71%

positive screens in ≥ 1
social risk domain

ACRONYMS & ABBREVIATIONS

ACORN Assessing Circumstances and Offering Resources for Needs

EHR Electronic Health Record (Computerized Patient Record System [CPRS])

FY Fiscal Year

IPT Integrated Project Team

PACT Patient Aligned Care Team (VA Primary Care)

SDOH Social Drivers or Determinants of Health

VA Department of Veterans Affairs

VHA Veterans Health Administration

VISN Veterans Integrated Service Network

VSDHF Veteran Social Drivers of Health Framework

TABLE OF CONTENTS

UNDERSTANDING SOCIAL RISK FACTORS AND SOCIAL NEEDS	8
ACORN OVERVIEW	9
HISTORY OF ACORN	10
FY 2023 ACORN ACTIVITIES	13
Activity 1. ACORN Community of Practice	14
Activity 2. ACORN National Template	17
Activity 3. ACORN Dashboard	18
Activity 4. ACORN Partner Engagement Group	21
Activity 5. ACORN Field-Based Meeting	22
FY 2023 EVALUATION	23
ACORN Partner Site Data	23
Veteran Screening Data	28
BROADER VA & EXTERNAL PARTNERS COLLABORATIONS	31
CHALLENGES AND OPPORTUNITIES	32
PLANS FOR FY 2024	33
FY 2023 PRESENTATIONS AND SCHOLARLY WORK	34
ACORN LEADERSHIP TEAM	37
REFERENCES	38

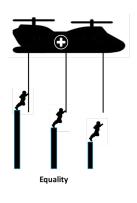
UNDERSTANDING SOCIAL RISK FACTORS AND SOCIAL NEEDS

Along with reliable access to quality health care, social, economic, and environmental conditions intersect to influence individual wellbeing.¹

These conditions are collectively referred to as **social drivers or social determinants of health (SDOH)** and are the "conditions in which people are born, grow, work, live, and age, and the wider set of forces and systems shaping the conditions of daily life" that can lead to health inequities and hinder advancements in population health.^{1,2,3}

SDOH are distinct from social risk factors and social needs. **Social risk factors** are defined as specific, individual-level adverse social conditions associated with poor health, such as food insecurity or housing instability.^{3,4} **Social needs** are a patient-centered concept that incorporates a person's perceptions of and priorities related to their own health-related needs.^{3,4}







Graphic credit: Ernest Moy, Office of Health Equity⁵

Defining Equality vs. Equity

Equality is when everyone receives the same number and types of resources, support, and treatment.⁵

Equity considers individual differences to provide each person with the types of resources, support, and treatment they need so everyone has an opportunity to achieve optimal health.⁵ Equity is reaching out to those in need, so no one is left behind.

Improved Health for All

Given the adverse impact of unmet social needs on health, healthcare organizations have increasingly recognized the critical importance of integrating social care into the provision of medical care. In 2023, both The Joint Commission⁶ and the Centers for Medicare and Medicaid Services^{7,8} established standards that task healthcare organizations with implementing activities to improve health equity, including collecting data on SDOH (or social risk factors) and addressing identified social needs.

Although health care systems alone cannot address all root causes of health inequities, they can play an important role by implementing programs to identify social risks and address individual-level social needs as one component of the multi-level approach needed to achieve health equity.⁹

Systematically identifying, comprehensively assessing, and addressing social risks and needs is critical to advancing health equity among Veterans. The unmet social needs of the nation's Veterans are of vital concern and require efforts on behalf of VA and VHA to ensure that Veterans are afforded the support and services needed to attain their highest level of health and wellbeing.



Assessing Circumstances and Offering Resources for Needs (ACORN)

ACORN's mission is to systematically identify and address unmet social needs among all Veterans to improve health and advance health equity.

ACORN is a national VHA quality improvement initiative conducted in partnership with the Office of Health Equity and the National Social Work Program, Care Management and Social Work Services.



ACORN aims to: 1) systematically screen Veterans for social needs in nine social risk domains; 2) provide clinical teams real-time information about Veterans' unmet needs; and 3) address identified needs through the provision of resources and referrals.

ACORN OVERVIEW

ACORN consists of two core components: 1) a standardized screening tool to identify social risks at the point of care; and 2) the provision of relevant resources and referrals to help address Veterans' identified social needs.

Screening Tool

The ACORN screening tool was informed by existing social needs screening tools used in other health care settings and includes Veteran-tailored items developed by the ACORN Team as well as VHA's existing clinical reminders for food insecurity and housing instability.



ACORN screens across nine social risk domains: food, housing, utilities, transportation, education, employment, legal, social isolation/ loneliness, and digital needs (device/internet access and digital health literacy). Veterans can complete ACORN screening prior to or during clinic visits as a self-administered screener on paper or as a staff-administered screener in the VA EHR.

Resources and Referrals

Veterans who express needs are offered: 1) referrals for further assessment and intervention to Social Work, Nutrition and Food Services, Mental Health or other VA services; 2) support navigating VA and community resources; and/or 3) geographically-tailored resource guides. The resources and referrals provided are tailored to each Veteran's needs and preferences, with each clinical site developing setting-specific workflows to ensure that appropriate supports are offered to address identified needs.

Resource Guides

ACORN Resource Guides are concise, high-yield lists of resources for each social risk domain that can be given to Veterans who screen positive for needs.

Resource guides can be used alone or provided in combination with other services. For example, they can be provided as supplemental information along with resource navigation or case management. They can also serve as a standalone tool in cases where Veterans may not be interested in or comfortable accepting assistance at the time of screening or may prefer to research and navigate resources on their own.



HISTORY OF ACORN

2018 - 2019: Initial Development & Mental Health Clinic Pilot

While VHA has had universal screening for housing instability since 2012 and food insecurity since 2017, VHA lacked a way to systematically screen Veterans for social risks more broadly. To address this gap, an interprofessional team of clinical leaders, staff physicians, social workers, mental health providers, informaticists, researchers, and other subject matter experts ("ACORN Advisory Board") within the VA New England Healthcare System (Veterans Integrated Service Network (VISN) 1) developed the original ACORN screener in 2018.

During the initial development, this team reviewed candidate screening domains based on recommendations from expert bodies including the Centers for Medicare & Medicaid Services¹⁰ and National Academy of Medicine,¹¹ and prioritized social risk domains that were most commonly seen among Veterans and for which VA or community resources existed to address identified needs.

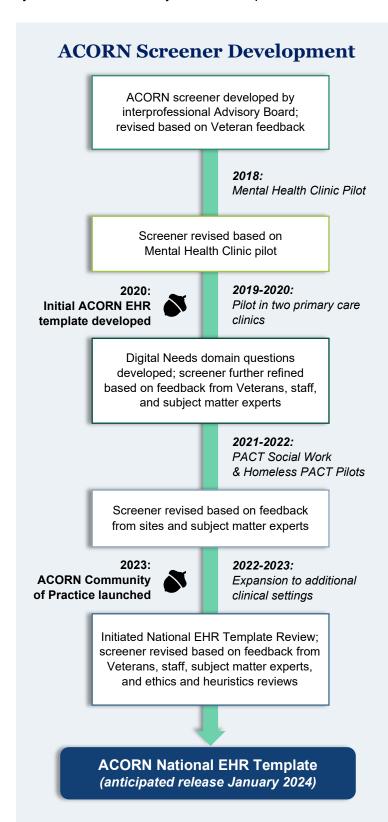
Domains selected for inclusion in the original version of the ACORN screener included food, housing, utilities, transportation, education, employment, legal needs, interpersonal violence, and social isolation/loneliness. Screening questions were then chosen by reviewing the literature and existing screening tools including VHA clinical reminders for housing instability, food insecurity, and intimate partner violence. ¹²⁻¹⁶ For any social risk domains lacking existing measures, or where existing measures were not applicable to VHA or the Veteran population, our team either adapted questions from existing tools or developed new questions based on input from the Advisory Board and other subject matter experts.

To ensure acceptability and clarity of the original screener, we conducted cognitive interviews with 18 Veterans in New England. The screening questions were refined based on Veterans' feedback and piloted in a mental health clinic in New England for roughly six months. Based on lessons learned from this pilot and feedback from our field-based clinical care team partners as well as subject matter experts, we further revised the screener.

2019 - 2020: Primary Care Pilot and Initial EHR Template

Following the mental health clinic pilot, ACORN received funding in 2019 from the VHA Innovators Network Spark-Seed-Spread Innovation Investment Program and the Office of Health Equity. The Innovators Network funding provided the necessary resources to purchase VA-approved iPads for Veterans to self-administer ACORN in clinical settings. The Office of Health Equity funding supported expansion of ACORN pilot testing into a community-based outpatient primary care clinic and a women's health primary care clinic in the VA New England Healthcare System. It also supported more extensive evaluation efforts and the onboarding of an additional ACORN Co-Lead and ACORN Program Coordinator.

With the onset of the COVID-19 pandemic during the VISN 1 primary care pilot and the rapid shift to telehealth in response to pandemic-related lockdowns, our team collaborated with a clinical applications coordinator at the VA Boston Healthcare System to develop the first iteration of the ACORN template in the VA electronic health record (VA EHR), Computerized Patient Record System (CPRS).



2020 - 2021: Digital Needs Questions

The pandemic also underscored the increasingly critical role of internet as an essential utility, and the need for digital access not only for telehealth but for a range of non-medical services and resources. In response to this changing landscape, VA expanded resources to address digital needs, including a national Digital Divide Consult to provide Veterans without reliable internet access and/or without a video-capable device assistance applying for federal internet subsidies or a VA-loaned internet-connected device. Yet, VHA lacked a way to systematically assess which Veterans could benefit from these resources.

To address this gap, our team developed screening questions to identify digital needs, including access to video-capable devices and the internet, as well as need for assistance setting up video visits. Questions were developed with input from an interprofessional team of primary care physicians, nurses, social workers, researchers, and subject matter experts, including those from the VA Office of Connected Care and a quality improvement project funded by the National Center for Homelessness Among Veterans.



We then refined the questions based on cognitive testing with Veterans receiving care at a VA Greater Los Angeles Patient Aligned Care Team (PACT, VA Primary Care) clinic serving Veterans experiencing homelessness.

2021 - 2023: PACT Social Work Pilot and Community of Practice

The VHA National Social Work Program became a formal ACORN operational partner in 2021. The establishment of this partnership included additional review and refinement of the ACORN screener, including the newly added digital needs questions, as well as the development of the PACT Social Work ACORN pilot.

The PACT Social Work ACORN pilot began in July 2021 with four geographically dispersed PACT Social Work sites and subsequently expanded to include seven additional sites that implemented ACORN in a variety of clinical settings. Based on feedback from staff at these sites, additional revisions were made to the ACORN screener and implemented in fall of 2022. We subsequently launched the ACORN Community of Practice in January 2023, with gradual expansion of ACORN implementation to a total of 27 sites by the end of the fiscal year.

2023: ACORN National VA EHR Template

In January of 2023, we initiated a VA EHR National Template review to make the ACORN EHR template nationally accessible. As part of the transition from a locally based to a nationally based template, we undertook an additional comprehensive review of the ACORN screener incorporating feedback from the Community of Practice Partner Sites, listening sessions with Veterans and Veterans Service Organizations, operational partners and subject matter experts both within and outside VA, as well as ethics and heuristics reviews that were part of the formal national template review process.

The National Clinical Template Workgroup voted to approve the ACORN screener for pilot site testing in October 2023, with planned release to VHA facilities and clinical settings by early 2024.

FY 2023 ACORN ACTIVITIES

ACORN objectives for FY 2023 were focused on enhancing tools and support for ACORN Partner Sites and capacity for broader program dissemination. Major activities included:



Activity 1: Developing an ACORN Community of Practice and related tools to provide support and technical assistance for Partner Sites across pre-implementation to sustainment phases, as well as standardizing the implementation process to include engagement and concurrence with the Social Work Chief or Executive



Activity 2: Updating the ACORN VA EHR Template and submitting for approval by the National Clinical Template Workgroup



Activity 3: Centralizing ACORN data collection, analysis, and evaluation, and developing the ACORN Dashboard



Activity 4: Convening an ACORN Partner Engagement Group comprising representatives from programs and offices across VA to provide guidance and subject matter expertise as ACORN expands



Activity 5: Holding a Health Services Research & Development Field-Based Meeting to bring together research and operations partners across VHA to discuss ACORN progress and future directions



Activity 1. ACORN Community of Practice



As ACORN continued national expansion efforts in FY 2023, we transitioned from small pilot implementation and single-site onboarding to a Community of Practice model for ACORN Partner Sites, which launched in January 2023.

The aim of the ACORN Community of Practice is to implement a feasible, sustainable, and collaborative approach to support dissemination of ACORN throughout VHA facilities and clinical settings.

Goals of this Community of Practice model are to: 1) share knowledge and experiences across sites; 2) engage new Partner Sites in ACORN implementation; 3) support sustainment of ACORN implementation at existing sites over time; and 4) provide technical assistance as needed.

Community of Practice Calls

We structured the ACORN Community of Practice with two primary monthly calls, one for all ACORN Partner Sites and one dedicated for new ACORN sites.

Community of Practice: *Defined*

"A group of people who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise by interacting on an ongoing basis." 17

All Sites Calls bring together both new and established sites to review national data, share experiences and lessons learned from ACORN implementation, and learn through "Site Spotlights" – opportunities for individual sites to share their workflows and success/challenges and seek feedback from the group. Based on feedback from sites about the need for additional information and support as they complete assessments and provide interventions for identified social needs, the Community of Practice calls also newly feature social risk domain-specific education with subject matter experts from the field and VA Program Offices.



New Sites Calls provide start-up support, assistance with workflow development and refinement, and technical assistance to successfully begin integrating ACORN into clinical settings. New Partner Sites attend these calls from pre-implementation through early implementation, typically around six months, to

receive additional technical assistance as they begin implementation as well as an opportunity to connect with other sites early in the implementation process.

To efficiently onboard new sites, a separate ACORN Basics call was added to the Community of Practice model to provide an introductory overview of ACORN for interested sites that have not yet started pre-implementation planning. Additionally, a monthly drop-in Office Hour was launched to provide sites with more individualized support for workflow development or technical assistance and troubleshooting.

Implementation Phases

In collaboration with the National Social Work Program, we standardized the implementation process to include engagement and concurrence with the Social Work Chief or Executive. Our team developed a set of implementation phases to provide specialized support and action steps for sites as they move through the process: Partner Site Interest, Pre-Implementation, Implementation, and Sustainment/Maintenance.



Partner Site Interest

This phase is dedicated to information gathering for sites and facilities interested in implementing ACORN.

- Attend an ACORN Basics call. Interested sites attend one of the monthly ACORN Basics calls to receive an overview of ACORN and discuss preliminary implementation logistics with the ACORN Leadership Team. Securing Partner Site leadership support, including approval from the facility's Social Work Chief or Executive, and engaging their clinical team are also essential steps in this stage.
- Complete a Partner Site Interest Form. Sites prepared to begin pre-implementation planning then submit a Partner Site Interest Form detailing clinic goals, anticipated timelines, target populations, and proposed workflows for both the screening and referral processes.

Interested sites are then onboarded as a New Partner Site to the ACORN Community of Practice and begin attending the New Sites and All Sites Calls.

Pre-Implementation

Pre-implementation planning lays the groundwork for smooth integration of ACORN into clinic workflows.

- ACORN workflow development. Sites create strategic plans, or workflows, to implement ACORN in their clinical settings. Workflows detail the process steps for both screening and addressing identified needs, as well as identify who is responsible for each step. Sites may optionally develop ACORN resource guides as part of workflow development.
- ACORN VA EHR template installation and testing. Following review of the workflow, sites are
 provided the ACORN EHR template for installation by local clinical applications coordinators. Sites then
 test the template to ensure familiarity with the content and layout and confirm data capture.
- **Train clinic staff.** Sites train staff involved in implementation on how to use the ACORN screener and the site's workflow, including the specific delivery mode for their setting (e.g., staff-administered screening) and how to communicate the role or intent of ACORN to Veterans, based on their role in the process.

Implementation

Early Implementation is defined as the first six months of active ACORN implementation at a site. In this stage, sites are encouraged to start with one clinic or specific population to troubleshoot any initial challenges or barriers that may arise in the screening and/or referral process. Using the ACORN Dashboard, sites can track the number of screens performed and any resources/referrals provided for identified needs. These data can provide valuable insights to frontline staff implementing ACORN and ACORN champions who can use these data to engage in discussions with their team about challenges and opportunities for improvement. Early Implementation sites continue to attend New Sites and All Sites Calls to receive ongoing implementation support.

Following six months of screening and careful review of their workflow and staff capacity, Partner Sites transition into the *Implementation* phase. Sites in Implementation are no longer expected to attend New Sites calls, but we recommend they continue to attend the All Sites Call indefinitely. In this stage, sites often begin considering expansion opportunities into additional clinical settings at their facility.

Sustainment/Maintenance

Sites that have successfully implemented ACORN for at least one year move into the *Sustainment* phase. Strategic expansion into additional clinical settings is encouraged, and a Facility Champion (typically a staff member on the original implementation team) is identified to lead these efforts. In addition to All Sites Calls, Sustainment sites can continue to receive ongoing support and expansion guidance through ACORN Office Hours calls and site consultation meetings with our team.

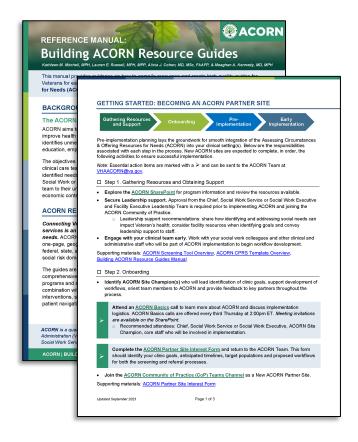
Partner Site Support Tools

To facilitate successful implementation, we developed a Partner Site Workbook to assist interested and new Partner Sites with pre-implementation planning and workflow development.

For release in FY 2024, this Workbook includes:

1) <a href="https://doi.org/10.2007/j.jup.2007/j.j

Additional tools for Partner Sites that were built or substantially expanded in FY 2023 include the ACORN SharePoint site, which is as an access point for information about the Community of Practice and ACORN implementation tools, and the ACORN Teams Channel. This Channel provides an easily accessible platform for communication and information sharing between the national ACORN Leadership Team and Partner Sites.



Activity 2. ACORN National Template



During FY 2023, we iteratively revised the ACORN screener and VA EHR template based on input from the field, national program office partners and subject matter experts both within and outside VA, as well as feedback provided during listening sessions with Veterans and Veterans Service Organizations.

Updates included wording refinement throughout the template to improve clarity, the addition of an option to review prior ACORN screening results, updates to the legal and digital needs domains, and the addition of an option for clinicians to select relevant SDOH ICD-10 Z-codes for automatic inclusion on the visit encounter form. Review and selection of ICD-10 Z-codes was guided by interprofessional clinical expertise within the ACORN Team as well as expert input from the VA Knowledge Based Systems Terminology Team and Health Information Management Services.

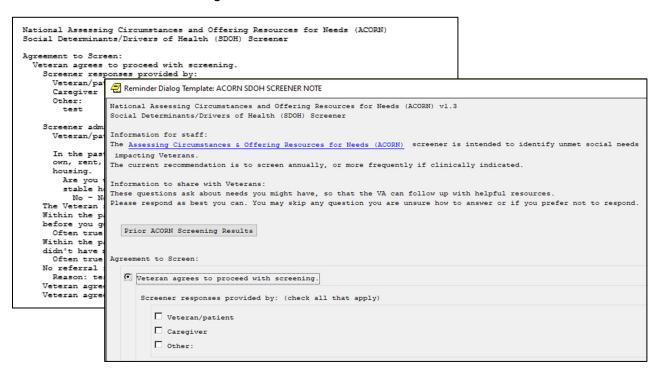


Figure 1. ACORN National VA EHR Template. Front: the introductory text and new option to review prior screening results.

Back: excerpt of a completed ACORN note in the VA EHR.

ACORN National Template Review

The process for submitting the ACORN VA EHR template for approval as a national template was first started in January 2023. Initial steps included working with the ACORN clinical applications coordinator to build the template content into a national format, followed by a heuristic review by Human Factors Engineering and Knowledge Based Systems Terminology Team as well as an ethics review. After addressing issues raised for consideration during these reviews and receiving approvals from each team, the final draft version of the national template was submitted to and approved by the National Clinical Template Workgroup in September 2023.

Pilot testing at five sites started in October 2023, with a release scheduled for January 2024. The establishment of a national ACORN VA EHR template will facilitate increased visibility and further dissemination of ACORN across VHA.

Activity 3. ACORN Dashboard



The ACORN Dashboard was created in 2023 to increase access to Veteran screening data collected through the ACORN screener.

Through the ACORN Dashboard, VHA clinical teams and programs as well as VISN and medical center leadership can: 1) understand the social risks and social needs impacting Veterans; 2) track the types of resources and referrals provided to Veterans who endorse unmet social needs on ACORN; and 3) observe how screening rates and the distribution of resources and referrals vary over time and by a number of sociodemographic factors.

Development of the ACORN Dashboard

The ACORN Dashboard Data Visualization Team, including social workers, data analysts, and subject matter experts, was formed in March 2023 and met weekly through the beginning of April 2023. This team brainstormed the purpose, contents, and layout of the ACORN Dashboard and created several mockups for review and feedback by members of the ACORN Leadership Team.

An initial draft version of the ACORN Dashboard was developed in PowerBI by the ACORN Dashboard Workgroup, which consisted of a subset of members from the ACORN Dashboard Data Visualization Team, between mid-April 2023 and end of June 2023. The draft was then shared in early July 2023 with eight ACORN Partner Sites at various stages of pre-implementation, implementation, and sustainment that volunteered to serve as beta testers and provide feedback.



Figure 2. Timeline of ACORN Dashboard development.

Members of the ACORN Dashboard Workgroup met with each of the eight partner sites in August 2023 to discuss their thoughts and recommended changes/additions. The Workgroup made iterative modifications and officially launched the ACORN Dashboard at the end of September 2023.

Looking Ahead

Based on feedback from ACORN Partner Sites, there are plans to either expand the existing ACORN Dashboard or create an additional dashboard to enable clinical partners to view individual patient-level data.

ACORN Dashboard Pages

Below are brief descriptions of the pages included in the ACORN Dashboard.

Before You Begin

The Before You Begin page provides a brief tutorial to orient users to the ACORN Dashboard, navigation, and the content of each page.

Overview Data

The Overview Data page displays the number of ACORN screens administered, positive ACORN screens, and resources or referrals provided.

It also provides trend lines depicting the number of all screens and positive screens over time along with a bar graph showing the social need domains (in percentages) for which Veterans screened positive (Figure 3a).

Additionally, by selecting the button at the bottom of this page, the trend lines are replaced by a table showing a breakdown of positive responses for the social risk domains that have multiple questions on the screener (e.g., housing, digital needs) (Figure 3b).

Demographics

The Demographics Page shows ACORN screening data broken down by specific demographic characteristics, including age, birth sex, VA enrollment priority group, married/partnered status, race/ethnicity, rurality, and sexual orientation (Figure 4).

Currently, gender identify data are hidden due to a high number of missing responses; however, once there is a higher degree of completeness, we intend to display these data.

ACORN Dashboard: Select Pages



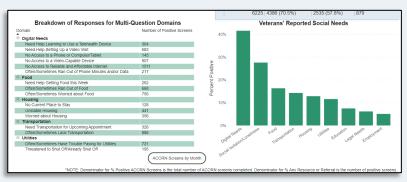


Figure 3a. ACORN Dashboard Overview Data page depicting trend lines and positive screens by social risk domain.

Figure 3b. Focused view of the Overview Data page, demonstrating breakdown of positive responses for social risk domains with multiple questions and positive screens by domain.

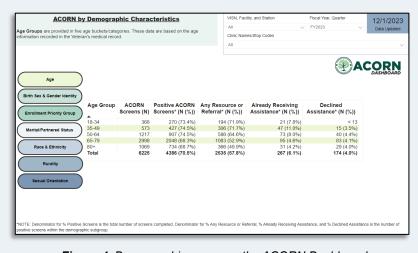


Figure 4. Demographics page on the ACORN Dashboard.

Domain Trends

The Domain Trends page contains trend lines for positive screens over time for all nine domains (Figure 5).

Resources and Referrals

The Resources and Referrals page shows the breakdown of resources and referrals provided to Veterans who screen positive based on options selected by staff in the Disposition Field/Action Items section of the ACORN VA EHR template (Figure 6).

Co-Occurring Needs by Domain

The Co-Occurring Needs by Domain page provides information on co-occurring (or overlapping) positive domains.

Resources and Referrals by Domain

The Resources and Referrals by Domain page provides information broken down by each social risk domain. The resources and referrals shown on this page were provided to either address the Veteran's reported selected need or another unmet need reported at the time of screening.

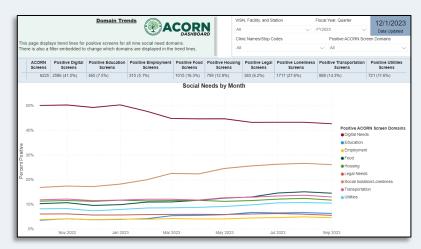


Figure 5. Domain Trends page on the ACORN Dashboard.

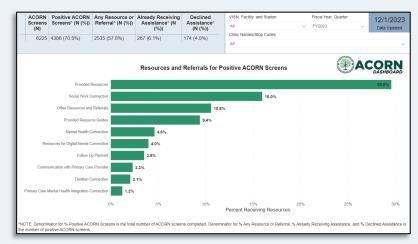


Figure 6. Resources and Referrals page on the ACORN Dashboard.



Activity 4. ACORN Partner Engagement Group



Recognizing the critical role of interprofessional subject matter expertise as ACORN has grown and adapted over time, we convened the ACORN Partner Engagement Group in October 2022.

Comprised of representatives from offices and programs across the VA enterprise, the ACORN Partner Engagement Group aims to guide the development of ACORN objectives and initiatives to support VHA-wide implementation of ACORN and related interventions.

Objectives include ensuring that ACORN initiatives are designed and implemented with a health equity lens, aligning objectives with partner office and VHA priorities, providing targeted feedback on proposed changes to the ACORN screener and implementation tools, and supporting dissemination of ACORN through advocacy, education, and identification of partnerships.

The ACORN Partner Engagement Group had four meetings in FY 2023 (October, January, May, and August) focused on developing a charter for the ACORN Partner Engagement Group, reviewing ACORN progress and data updates, and seeking feedback on the Community of Practice and ACORN Dashboard.

ACORN Partner Engagement Group Membership

Center for Minority Veterans

Food Security Office

Geriatrics and Extended Care

Homeless Programs/National Center of Homelessness among Veterans

Legal Services for Veterans Program

LGBTQ+ Health Program

National Center for Healthcare Advancement and Partnerships

National Center for Health Promotion and Disease Prevention

National Social Work Program, Care Management and Social Work Services

Office of Connected Care

Office of Health Equity

Office of Health Informatics/Knowledge Based Systems

Office of Healthcare Innovation and Learning

Office of Mental Health and Suicide Prevention/Peer Support Services

Office of Nursing Services

Office of Patient Centered Care & Cultural Transformation/Whole Health

Office of Primary Care

Office of Rural Health

Office of Women's Health

Patient Care Services leadership

Peer Specialists/Veteran representatives

Social Determinants of Health Research

Veterans Benefits Administration

Veterans Experience Office

VISN leadership

Activity 5. ACORN Field-Based Meeting



In June 2023, the ACORN Team hosted a Health Services Research & Development-funded Field-Based Meeting.

This 1.5-day planning meeting, which was primarily in person but also included virtual participants, convened an interprofessional group of 31 VA researchers, clinicians, Veterans, and core VHA operations partners from the National Social Work Program, Office of Health Equity, Food Security Office, and Homeless Programs Office to discuss ongoing ACORN operational and research priorities, document lessons learned from ACORN pilot sites, and develop a plan to move ACORN to the next phase of the translational pathway.

Goals of the meeting were to: 1) refine ACORN workflows for identifying and addressing social risks and needs among Veterans across VHA clinical settings; and 2) identify key process and outcome measures as well as evaluation priorities to create a logic model for how ACORN can improve specific and measurable health, utilization, and equity outcomes.

Action items and next steps based on discussion and products developed during the meeting included:

Invite researchers and operations leaders to participate in an SDOH research interest group, which will serve as a forum to share ideas and works in progress, break down silos, and develop new research collaborations



Revise and refine an ACORN logic model, which was started as part of a structured group brainstorming activity during the meeting. Discussion also included creating separate implementation and effectiveness logic models



Continue to refine and build out ACORN core clinical workflows, considering potential infrastructure and resource constraints (e.g., staffing) on the ability to assess and address identified social risks and needs



Create a roadmap for national dissemination and implementation of ACORN as a social risk screening and referral initiative throughout VHA clinical settings



Prepare and submit a proposal for a multi-site, pragmatic hybrid type 2 implementation-effectiveness trial of ACORN



FY 2023 EVALUATION

In FY 2023, ACORN evaluation focused on two key components: 1) ACORN Partner Site data, and 2) Veteran screening data.

ACORN Partner Site Data

Partner Site Engagement

ACORN has been implemented in a variety of clinical settings, including Primary Care, Women's Health, Mental Health, Geriatrics, a range of specialty clinics, emergency departments, and inpatient services. ACORN also supports VHA's transformation into a Whole Health System of Care with its focus on SDOH and empowering and equipping Veterans to take charge of their health and well-being and live their lives to the fullest.

At the close of FY 2023, 36 Partner Sites (VHA facilities) had joined the ACORN Community of Practice. Of those, 9 were in Pre-Implementation (i.e., workflow planning), 19 were in Implementation (first year of screening), and 8 were in Sustainment/Maintenance (Figure 7).



Figure 7. Implementation phases in ACORN Community of Practice in FY 2023.

Geographic Distribution of ACORN Partner Sites

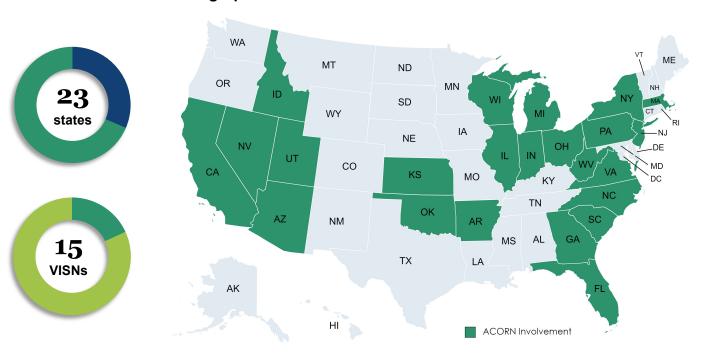


Figure 8. Geographic distribution of sites in ACORN Community of Practice in FY 2023.



VHA facilities implementing ACORN are geographically distributed across 23 states, serving a diverse range of Veteran populations (Figure 8). Of the 18 VISNS (VA regional networks), 15 were represented among Partner Sites participating in the Community of Practice.

The first ACORN Community of Practice meeting occurred in January 2023, and attendance data were subsequently collected from February through September. An average of 27 people representing 15 VHA facilities attended the New Sites Calls while an average of 37 people representing 20 facilities attended the All Sites Calls (Figure 9). We held 6 monthly ACORN Basics calls (April through September) with an average of 7 attendees per call. Office Hours calls were also offered monthly with an average of 2 attendees per call.

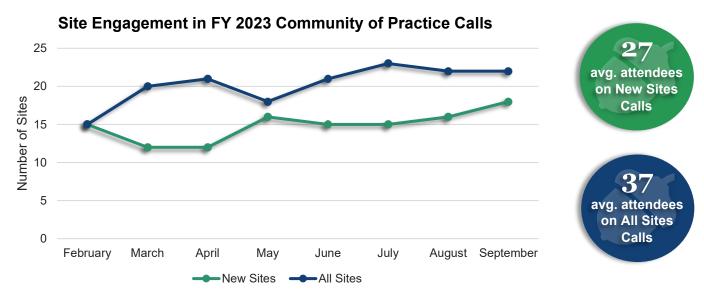


Figure 9. Number of Sites that attended the New Sites Call and All Sites Call during FY 2023.

Bi-Annual Partner Site Survey

Partner Sites were asked to complete a Partner Site Survey twice during FY 2023 (April & September) to better understand how they were implementing ACORN at their facilities. A total of 16 sites completed the survey in April and 19 sites completed it in September. Data from the September survey are shown below to reflect the most recent implementation characteristics across sites.

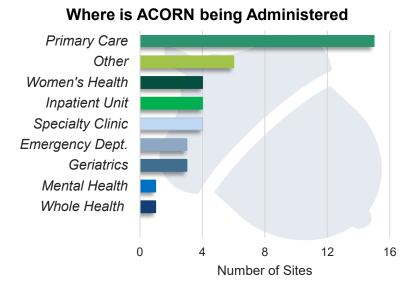


Figure 10. Clinical settings for ACORN implementation (n=19), sites may select more than one option.

Most ACORN Partner Sites reported administering ACORN in Primary Care, Women's Health, Inpatient Units, Specialty Clinics, and other areas such as Vocational Rehabilitation, Urgent Care, and Nutrition (Figure 10). All 19 sites reported that the ACORN screener is staff-administered, but 4 sites additionally reported self-administered screening.

Screening is most often performed by social workers (all 19 sites); additional staff roles reported included nurses/licensed practical nurses (2 sites), physicians/nurse practitioners/physician assistants (1 site), Peer Specialists (2 sites), and other roles including dieticians, social work assistants, and licensed professional counselors (3 sites) (Figure 11).

While most sites (12) reported administering ACORN during a scheduled visit, others also reported screening before a visit (3), during check-in (5), after a visit (3), and at other times (7) such as walk-in appointments, during a high-risk assessment, and during group programs (Figure 12). Sites reported multiple modalities for ACORN screening, including in-person (18), by phone (14), and by telehealth/VA Video Connect (VVC) (11) (Figure 13). Nearly all sites (18) reported providing resource guides to Veterans.

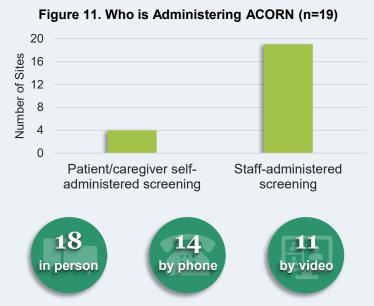


Figure 13. Modality of ACORN Screening (n=19, sites may report more than one option)



Figure 12. Timing of ACORN Screening (n=19, sites may report more than one option)

Monthly New Sites Reflection

During each New Sites Call between April and September, ACORN Partner Sites were given time to answer four open-ended questions to reflect upon their experience implementing ACORN over the prior month. Partner Sites were asked the following four questions:

- What has worked well with your facility's implementation of ACORN in the past month?
- What challenges have you faced with your facility's implementation of ACORN in the past month?
- Have there been any changes to your facility's implementation of ACORN in the past month?
- What plans or goals does your team have for the coming month?

A total of 82 responses were collected from 23 different sites over 6 months. We conducted a rapid qualitative analysis of open-ended responses, with two team members reviewing responses for each question to identify themes and illustrative quotes. Themes were finalized through an iterative process of review and consensus discussion amongst team members.

"Our clinical informatics team is currently working really well with our PACT Social Work Supervisor, and we recently connected with our Nutrition team to discuss their role in our implementation.

We also have PACT Social Workers interested in rolling ACORN out in their respective clinics to begin developing the most effective process in rolling this out."

(Worked Well - Communication and Collaboration)

Key Findings

Four major themes were identified for the "Worked Well" question, including communication and collaboration, buy-in from leadership and staff, support from the ACORN Leadership Team, and informatics and data. Sites identified competing priorities/time commitment, staffing resources and buy-in, and coordination with clinical informatics and template concerns as barriers for the "Challenges" question. "Changes" and "Goals" identified were focused on process development, staffing changes, expansion, and monitoring/improvement.

"There is great interest within the facility and we do not yet have the infrastructure and staffing resources to roll it out as widely as we would like."

(Challenges - Staffing Resources/Buy-in)

Findings from the monthly reflection analysis will be used to improve education and support through the ACORN Community of Practice and to inform in-depth qualitative interviews with highand low-uptake ACORN Partner Sites to better understand barriers and facilitators to implementation during FY 2024.

Community of Practice Satisfaction Survey

We assessed sites' satisfaction with the Community of Practice through an end-of-fiscal-year survey. Sites were asked about their satisfaction with the ACORN Community of Practice overall, New Sites Calls, All Sites Calls, technical assistance, and implementation tools.

A total of 26 responses were collected. The average Overall Satisfaction rating from respondents was 8.1 out of 10. Overall, most respondents were either Satisfied or Very Satisfied with all aspects of the Community of Practice (Figure 14). No sites reported that they were Not Satisfied.

We also provided a free-text box to encourage open-ended feedback and suggestions for improvement. Open-ended responses included requests to discuss the clinical outcomes of ACORN, learn about implementation in a variety of clinics, and address how to administer ACORN over time.

This feedback has provided further insight into what the Partner Sites are getting out of the Community of Practice and will help inform improvements to the Community of Practice format and content for FY 2024.

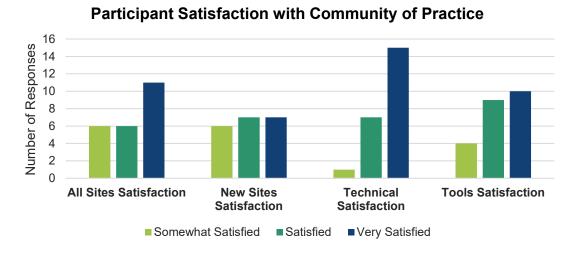


Figure 14. Participant satisfaction with the Community of Practice during FY 2023 (n=26).



Veteran Screening Data

ACORN Partner Sites completed 6,225 screens (among 5,897 unique Veterans) in FY 2023 across a variety of VHA clinical settings. Data reported below are for all screens rather than unique Veterans. Trends in number of screens performed by month are shown in Figure 15, demonstrating a nearly four-fold increase from 266 monthly screens in October 2022 to 1,011 monthly screens in September 2023. The majority of ACORN screens were performed either in PACT Social Work (33%) or in the Emergency Department (28%). More than 70% of ACORN screens administered across clinical settings were conducted by social workers.

ACORN Screens by Month All Screens Positive Screens 1000 800 600 200 Nov 2022 Jan 2023 Mar 2023 May 2023 Jul 2023 Sep 2023

Figure 15. Number of ACORN screens performed and number of positive ACORN screens by month during FY 2023.

Sociodemographic Data

Sociodemographic characteristics of Veterans screened are presented in Table 1. The mean age of Veterans screened was 66.7 [SD 15.6] years. The majority were male by sex assigned at birth (88%). Of Veterans screened, the majority were white (64%) and/or Black or African American (28%) (note that individual Veterans may be included in more than one race subgroup), and non-Hispanic (92%). Approximately half (52%) of Veterans screened were categorized as urban and 38% were rural or highly rural, based on VA's rurality classification.¹8 24% of Veterans screened were in enrollment priority group 5, which is often used as a proxy for low-income status.¹9 Less than half (43%) of Veterans were married or partnered. One-third (37%) had a Care, Assessment, Need (CAN) score of ≥95, which is predictive of increased risk for hospitalization or mortality.²0

Overall, 4,386 ACORN screens (71%) were positive in one or more social risk domain.

Table 1 displays positive screens broken down by sociodemographic characteristics, including age, sex assigned at birth, race, ethnicity, rurality, marital status, and enrollment priority group. The prevalence of positive screens was 74% for those younger than 65 years and 68% among older Veterans ≥65 years. For sex assigned at birth, 73% of females and 70% of males screened positive. Veterans categorized as urban had a 74% prevalence of positive screens



compared to 68% for rural and 69% for highly rural Veterans. Among Black or African American Veterans 77% of screens were positive, and among white Veterans 67% were positive. 77% of non-married/non-partnered Veterans and 79% of Veterans in enrollment priority group 5 screened positive.

Of note, data presented in this report were collected only from clinics/programs at VHA facilities that were utilizing the ACORN screener in FY 2023. As a result, data in this report and in the ACORN Dashboard may differ from other VHA data sources, dashboards, and reports and is not considered representative of the full VHA-enrolled Veteran population.

TABLE 1. DEMOGRAPHIC CHARACTERISTICS OF VETERANS SCREENED IN FISCAL YEAR 2023 (N=6,225) **Total Screens Prevalence of Positive Screens** (n) (n (%)) Age group (years) 18-34 368 270 (73.4%) 35-49 573 427 (74.5%) 50-64 1,217 907 (74.5%) 65-79 2,998 2,048 (68.3%) ≥80 1,069 734 (68.7%) Sex Assigned at Birth 772 Female 567(73.5%) Male 5,453 3,819 (70.0%) Race¹ American Indian or Alaska Native 107 82 (76.6%) 26 Asian 18 (69.2%) 1.764 Black or African American 1,364 (77.3%) Native Hawaiian or Other Pacific Islander 53 44 (83.0%) White 3.965 2,664 (67.2%) Unknown/Missing Race 384 270 (70.3%) **Ethnicity** Hispanic or Latino 202 156 (77.2%) 4,015 (70.3%) Not Hispanic or Latino 5.714 309 Unknown/Missing Ethnicity 215 (69.6%) Rurality² 62 Highly Rural 43 (69.4%) Rural 2.297 1,557 (67.8%) 3.254 2.392 (73.5%) Urban 394 (64.4%) Unknown/Missing Rurality 612 **Marital Status** Married/Partnered 1,672 (62.4%) 2,680 Non-married/Non-Partnered 3.261 2,509 (76.9%) Unknown/Missing Marital Status 284 205 (72.2%) **Enrollment Priority Group³** 1-4 3.763 2,607 (69.3%) 5 1,517 1,206 (79.5%) 920 559 (60.8%) Unknown/Missing Priority Group 25 14 (56.0%)

¹Racial groups are not mutually exclusive as more than one race may be reported.

²Rurality refers to VA's classification of Veteran rurality based on the Rural-Urban Commuting Areas (RUCA) System developed by the U.S. Department of Agriculture and the U.S. Department of Health and Human Services. There are three categories reported: urban, rural, and highly rural. ¹⁸

³Enrollment Priority Group refers to a determination of Veterans' eligibility for and cost-share associated with VA health benefits, as well as service-connected disability compensation. For Table 1, Enrollment Priority Group is collapsed into 3 categories: (a) Veterans receiving some percentage service-connected disability compensation, Veterans receiving aid and attendance, or having experienced a non-service-connected catastrophic disability (Groups 1-4); (b) Veterans with no service-connected disability compensation who are low-income (Group 5); and (c) those with no service-connected disability compensation who are not low-income above the VA means test (Groups 6-8).¹⁹

Resources and Referrals for Identified Needs

Social risk domains with the highest prevalence of positive screens were digital needs (42%), social isolation/loneliness (28%), food insecurity (16%), transportation needs (14%), and housing instability (13%) (Figure 16). Food, housing, and utilities domains include follow up questions to assess acute needs; among all Veterans screened, 4% indicated an acute food need (i.e., inadequate food for the week), 3% indicated an acute utilities need (i.e., utilities have been threatened to be shut off or are already shut off), and 2% indicated an acute housing need (i.e., currently without a place to stay).

Resources and referrals provided for positive screens are calculated based on selections made by VA staff within the disposition section of the ACORN screening template. Among positive screens, 58% of Veterans were provided some form of resource and/or referral, 4% declined assistance, and 6% reported already receiving services or assistance. The most common types of assistance documented were providing resources/resource information (30% of positive screens) and providing a warm hand-off or consult to social work (16% of positive screens) (Figure 17).

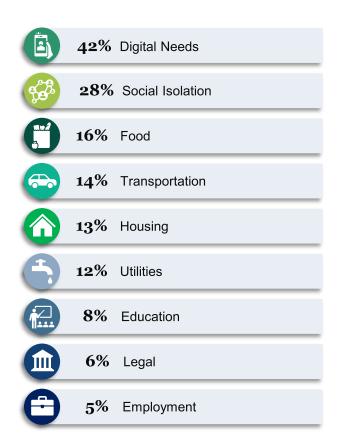


Figure 16. Percentage of positive screens within each social risk domain on the ACORN screener.

Resources and Referrals Provided for Positive ACORN Screens

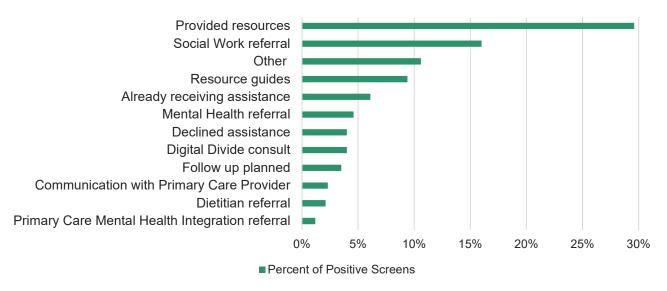


Figure 17. Percentage of positive screens for which various resources and referrals were provided by staff.

BROADER VA & EXTERNAL PARTNERS COLLABORATIONS

VA Knowledge Based Systems Terminology Team

Since 2020, we have collaborated with the VA Knowledge Based Systems Terminology Team on a number of efforts to ensure alignment of ACORN with national data capture and interoperability standards. Highlights have included:

- Inclusion of the ACORN screener in the July 2021 CMS HL7 FHIR Connectathon²¹
- Provision of SDOH subject matter expertise for the Gravity Project's²² 2021 build of their Veterans Status Master list
- Mapping of ACORN Health Factors to Systematized Nomenclature of Medicine--Clinical Terms
 (SNOMED CT)²³ codes and development of an ACORN Logical Observation Identifiers Names and
 Codes (LOINC)²⁴ submission
- Review and selection of relevant ICD-10 Z-codes offered on the national VA EHR template for optional inclusion on the visit encounter form following screening

ACORN was also recently included on a list of Gravity Project accepted social risk screening instruments²⁵ and explicitly referenced as informing Gravity's Digital Access and Digital Literacy domains.

Veteran Social Drivers of Health Framework Integrated Project Team

In 2022, the Department of Veterans Affairs joined the newly launched Sync for Social Needs Initiative. ²⁶ Through this initiative, participants "commit[ted] to working on developing consensus on standards and piloting real-world testing of an HL7 FHIR-based approach for the collection and sharing of social needs screening results to meet upcoming CMS program requirements." ²⁶ As part of VA's commitment, the organization chartered an enterprise-wide Veteran Social Drivers of Health Framework (VSDHF) Integrated Project Team (IPT).

Each of the IPT Workgroups has a VHA and Veterans Benefits Administration Co-Lead. ACORN leadership has actively engaged in this work as both VHA Workgroup Co-Leads and workgroup participants. There is a natural synergy between the VSDHF IPT work and that of the ACORN Team. Lessons and experiences learned from the ACORN Team, such as best practices for working with community partners were incorporated into the VSDHF community playbook that is underway. Another example is utilization of SNOMED codes,

VSDHF IPT Efforts

- Assess the current state of SDOH data capture and data usage
- Pilot use cases for data standardization and interoperability
- Identify and disseminate best practices
- Explore potential community partner billing and reimbursement models for consideration

which were generated through the collaboration between the ACORN Team and the Knowledge Based Systems Terminology Team, for use in backstage infrastructure development.

Just as ACORN work has informed that of the VSDHF IPT, work within the IPT will springboard and augment work within ACORN. Additionally, the IPT has actively engaged national community partners in developing solutions to facilitate interoperable exchange of information. Engagement of these partners means that the vision from detection of social needs to referral to resolution is that much more possible.

VA Priority to Action (P2A)

In September 2022, the VHA Under Secretary for Health announced a number of organizational priorities. The six priorities (referred to as Priority to Action (P2A) measures) identified are considered "the top–level strategic and operational advancements of the greatest importance that must be achieved by VA."²⁷ The clear and actionable priorities were established to help focus VA's resources, time, and attention.

For FY 2023, ACORN was included under one of the six P2A measures, *Support Veterans' whole health, their caregivers, and survivors*: "In FY 2023, screen a minimum of 1,000 Veterans in total across pilot sites for Social Determinants of Health (SDOH)."²⁷ To achieve (and ultimately exceed) this goal, VA continued to expand implementation of the ACORN initiative to identify and address unmet social needs to 15 of the 18 VISNs and screened roughly 6,000 unique Veterans. This P2A measure and ACORN were mentioned in the VHA FY 2022-2025 Long-Range Plan.²⁸

CHALLENGES AND OPPORTUNITIES

As with most innovations, there are ongoing challenges and opportunities for improvement in ACORN. One notable opportunity to support scalability and broader dissemination is to create a Veteran self-administered electronic-based ACORN screener. Several platforms exist within VHA to support Veteran self-administered electronic screening; however, there are limitations to each of them (e.g., data linkage concerns, variable use across VHA facilities), which may require ACORN to be functional across multiple platforms to maximize reach.

In addition to enhanced options for Veteran self-administered screening, approval of the ACORN VA EHR template as a nationally available template provides an opportunity to promote enterprise-wide scalability and dissemination, both of which are critical to achieve our goal of systematic screening for social risks and social needs among all Veterans. Though these changes will support increased utilization of ACORN, it is worth noting that expansion will continue to be significantly influenced by availability of resources, both in terms of staffing and VA and community-based resource and referral offerings. The switch from the current VA EHR to (Oracle) Cerner may also present challenges, as it will require the creation of an ACORN form in Cerner and additional coding to ensure appropriate ACORN data capture for evaluation efforts and the ACORN Dashboard. However, we believe including ACORN in both the current VA EHR (CPRS) and Cerner will further the reach of ACORN and enable clinical care teams across the country to screen Veterans for social risks and social needs.

Healthcare organizations working to implement systematic social risk screening and intervention models face challenges measuring certain outcomes, both in terms of assessing whether individuals are able to successfully connect with offered resources and if their needs have been met, as well as downstream health and healthcare utilization outcomes. While the inclusion of a disposition section in the ACORN VA EHR template has allowed us to track interventions provided, we do not yet have a systematic way to monitor closed loop referrals or determine whether needs have been met and health-related outcomes have improved. Future ACORN research and operations initiatives will be focused on comprehensive assessment of these outcomes.

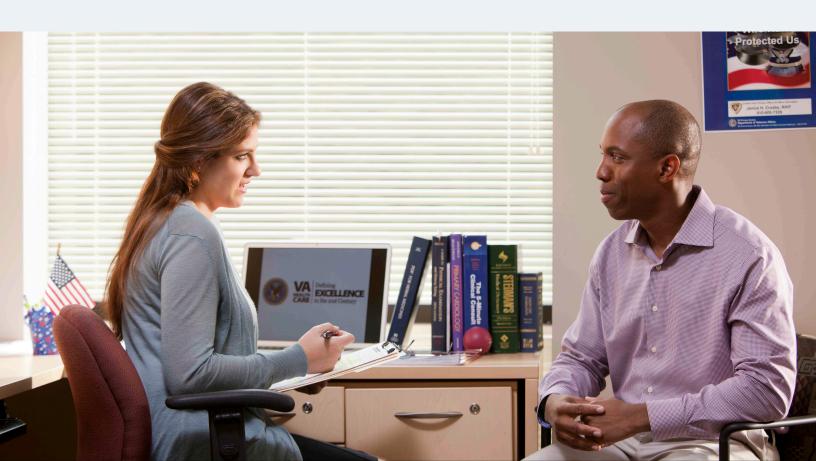
PLANS FOR FY 2024

During FY 2024, the ACORN Leadership Team will build upon our prior work to optimize implementation strategies for social risk screening and referrals within the VA using ACORN.

Our primary aims are to:

- 1) Grow and sustain the ACORN Community of Practice, including support with onboarding of new sites as well as ongoing technical support and knowledge-sharing for existing sites.
- 2) Develop tools and processes to facilitate dissemination, including the release of the ACORN National VA EHR template, a new process for Partner Site Interest Form submission and tracking of implementation progress through a web-based platform, development of an ACORN Implementation Toolkit and related training modules, and further refinement of the ACORN Dashboard.
- 3) Conduct continuous quality improvement and research, including a qualitative evaluation of facilitators and barriers to ACORN implementation at existing sites as well as design of a hybrid implementation-effectiveness trial of ACORN.
- **4)** Ensure ACORN is aligned with broader interoperability efforts both within and outside VA, including ongoing collaboration with the VA Knowledge Based Systems Terminology Team, the VA VSDHF IPT, and the Gravity Project.

Throughout these efforts, we will continue to work closely with subject matter experts, staff in the field, Veterans, and the ACORN Partner Engagement Group to ensure our efforts are aligned with clinical workflows, Veteran preferences, and national priorities related to addressing social needs.



FY 2023 PRESENTATIONS AND SCHOLARLY WORK

Peer-Reviewed National Presentations

Russell LE, Heyworth L, Cornell PY, Halladay C, Kennedy MA, Mitchell K, Moy E, Silva JW, Cohen AJ. Evaluating the Effectiveness of Routine Screening for Digital Needs Among Veterans. (Podium) American Public Health Association Annual Meeting, Boston, Massachusetts, November 2022.

Russell LE, McInnes DK, Cohen AJ, Cubanski L, Effron L, Sabio Y, Kopelson K, Gelberg L. Evaluating a Social Needs Screening and Referral Program Among Veterans Experiencing Homelessness. (Podium) American Public Health Association, Boston, Massachusetts, November 2022.

Cohen AJ, Russell LE, Elwy AR, Mitchell KM, Cornell PY, Silva JW, Moy E, Kennedy MA. Integrating Three Implementation Frameworks to Document Adaptation of a Social Risk Screening and Referral Initiative to Promote Health Equity Among Veterans. (Poster) AcademyHealth Annual D&I Conference, Washington, DC, December 2022.

Cohen AJ, McInnes K, Russell LE, Cubanski L, Effron L, Sabio Y, Kopelson K, Gelberg L. Adapting a Social Risk Screening and Referral Program for Veterans Experiencing Homelessness. (Podium) North American Primary Care Research Group Annual Meeting, Phoenix, Arizona, November 2022. Published Abstract: Annals of Family Medicine. Jan 2023;21(S1):3895. doi.org/10.1370/afm.21.s1.3895.

Cohen AJ, Russell LE, Kennedy MA, Cornell PY, Halladay C, Mitchell KM, Moy E, Silva JW, Heyworth LE Evaluating the Effectiveness of Routine Screening for Digital Needs Among Rural Veterans. (Podium) North American Primary Care Research Group Annual Meeting, Phoenix, Arizona, November 2022. Published Abstract: Annals of Family Medicine. Jan 2023;21(S1): 4101. doi.org/10.1370/afm.21.s1.4101

Cohen AJ, Heyworth L, Russell LE, Kennedy MA, Halladay CW, Mitchell KM, Moy E, Silva JW, Cornell PY. Evaluating the Effectiveness of Routine Screening for Digital Needs Among Rural Veterans. (Poster) Health Services Research & Development / Quality Enhancement Research Initiative National Meeting, Baltimore, Maryland, February 2023.

Cohen AJ, Heyworth L, Russell LE, Kennedy MA, Halladay CW, Mitchell KM, Moy E, Silva JW, Cornell PY. Evaluating the Effectiveness of Routine Screening for Digital Needs Among Rural Veterans. (Podium) AcademyHealth Annual Research Meeting, Seattle, Washington, June 2023.

Invited National Presentations

Donaldson A, Kennedy MA, Mitchell KM, Russell LE. "Assessing Circumstances & Offering Resources for Needs." Patient Aligned Care Team Social Work (PACT Social Work) Spring Summit (virtual), April 2023.

Russell LE, Trabaris B. "Assessing Circumstances & Offering Resources for Needs." GeriPACT / GEC Monthly Meeting (virtual), May 2023.

Russell LE, Trabaris B. "Assessing Circumstances & Offering Resources for Needs." Occupational Therapy Grand Rounds / National Occupational Therapy Supervisors Meeting (virtual), May 2023.

Halaszynski, J, Trabaris, B. The Assessing Circumstances & Offering Resources for Needs (ACORN) Initiative: Identifying and Addressing Social Determinants of Health Needs. (Podium) Military Behavioral Health and Social Work Conference, Austin, Texas, June 2023.

Kennedy MA, Silva JW. "Assessing Circumstances & Offering Resources for Needs." Buffalo VAMC 2022/2023 Caregiver Support Program Summit: Improving the Health & Wellbeing of our Nation's Caregivers (virtual), June 2023.

Kennedy MA, Trabaris B. "Assessing Circumstances & Offering Resources for Needs." VISN 8 Geri-Patient Aligned Care Team (PACT) (virtual), August 2023.

Cohen AJ, Trabaris B. "Assessing Circumstances and Offering Resources for Needs (ACORN)." Women's Health Field Leaders Meeting, Office of Women's Health, Veterans Health Administration (virtual), August 2023.

Russell LE, Armstrong CM. "Cultural Safety and Competency When Using Virtual Care." Connected Care Discussion Series (virtual), August 2023.

Peer-Reviewed Publications

Cohen AJ, Russell LE, Elwy AR, Mitchell KM, Cornell PY, Silva JW, Moy E, Kennedy MA. Adaptation of a social risk screening and referral initiative across clinical populations, settings, and contexts in the Department of Veterans Affairs Health System. Front Health Serv. 2023 Jan 30;2:958969. doi: 10.3389/frhs.2022.958969. PMID: 36925883; PMCID: PMC10012714.

Russell LE*, Cohen AJ* (*co-first authors), Chrzas S, Halladay CW, Kennedy MA, Mitchell K, Moy E, Lehmann LS. Implementing a Social Needs Screening and Referral Program Among Veterans: Assessing Circumstances & Offering Resources for Needs (ACORN). J Gen Intern Med. 2023 May 10:1–8. doi: 10.1007/s11606-023-08181-9. Epub ahead of print. PMID: 37165261; PMCID: PMC10171907.

Russell LE*, Mitchell KM* (*co-first authors), Kennedy MA, Chrzas S, Lehmann LS, Silva JW, Moy E, Cohen AJ. Building Tailored Resource Guides to Address Social Risks and Advance Health Equity in the Veterans Health Administration. Fed Pract. 2024 Jan;41(1):22. doi: 10.12788/fp.0446

Information Briefs/Non-Peer Reviewed Publications

Korshak L, Russell LE, Wray CM, Heyworth L, Silva J. Routine Screening of Veterans for Digital Needs. Information Brief, Office of Health Equity, Veterans Health Administration, December 2022.

Mitchell KM, Russell LE, Cohen AJ, Kennedy MA. "Reference Manual: Building ACORN Resource Guides." U.S. Department of Veterans Affairs, February 2023. https://www.va.gov/HEALTHEQUITY/docs/ACORN Resource Guide Manual.pdf

Leder SC, Russell LE, Mitchell KM, Kennedy, MA. "ACORN Dashboard User Guide & FAQ." U.S. Department of Veterans Affairs, September 2023.

Cohen AJ, Kennedy MA, Mitchell KM, Russell LE. "Assessing Circumstances & Offering Resources for Needs (ACORN)." U.S. Department of Veterans Affairs, October 2023. https://www.va.gov/HEALTHEQUITY/docs/ACORN Screening Tool.pdf

ACORN Policy Impacts

ACORN included in "The U.S. Playbook to Address Social Determinants of Health" released by the Domestic Policy Council, Office of Science and Technology Policy, The White House. The playbook outlines ongoing efforts and initiatives within the departments of Health and Human Services, Agriculture, Housing and Urban Development, and Veterans Affairs, among other federal agencies (November 2023).²⁹

ACORN cited in July 12, 2023 Congressional testimony at a US Senate Committee on Veterans' Affairs titled "Hearing to Consider Pending Legislation." ³⁰

ACORN instrument included in a list of Gravity Project approved social risk screening instruments.²⁵ ACORN also referenced as explicitly informing Gravity's Digital Access and Digital Literacy domains. (September 2023). The Gravity Project is a national public collaborative that develops consensus-based data standards to improve social determinants of health data capture and interoperability.²²

ACORN highlighted in Wichita Women's Health (Health Equity Spotlight) presentation at the VHA Governance Board. (September 2023).

ACORN included as a Priority to Action (P2A) measure in the VHA FY 2022-2025 Long-Range Plan.²⁸

ACORN LEADERSHIP TEAM

ACORN Team

ACORN Co-Leads Alicia Cohen, MD, MSc, FAAFP Meaghan Kennedy, MD, MPH Lauren Russell, MPH, MPP

ACORN Program Coordinator Kathleen Mitchell, MPH

VHA National Social Work Program ACORN Team

Andrea Berkheimer, LCSW Amy Donaldson, LCSW Alita Harmon, LCSW Brittany Trabaris, LCSW Lisa Wootton, LCSW

VHA Office of Health Equity Leadership

Ernest Moy, MD, MPH

VHA National Social Work Program Leadership

Jennifer Koget, MS, LCSW, BCD Jennifer Silva, LCSW-S

ACORN Data and Analysis Team

Jaime Boris, MHA, MS
Portia Cornell, PhD, MSPH
Chris Halladay, ScM
Sarah Leder, MSW
Sydney Ruggles, MA, MS
Chava Sonnier, MSOD

ACORN Clinical Applications Coordinator Consultant

Thao Nguyen, MSN, RN

VHA Collaborating Offices

Office of Connected Care

Office of Health Informatics, Chief Informatics and Data Management Office, Knowledge Based Systems Terminology Division

Office of Patient Centered Care & Cultural Transformation

Additional Contributors:

ACORN Leadership Team Emeritus: Lisa S. Lehmann, MD, PhD, MSc and Steven Chrzas, MPH.

ACORN Advisory Board (VISN 1 Interdisciplinary Team who developed the original ACORN screening tool and referral initiative): Lisa Lehmann, MD, PhD, MSc* and Lauren Russell, MPH, MPP* (*Co-Leads); Stacey Curran, BA; Charles Drebing, PhD; J. Stewart Evans, MD, MSc; Edward Federman, PhD; Maneesha Gulati, LICSW, ACSW; Nancy Kressin, PhD; Kenneth Link, LICSW; Monica Sharma, MD; and Jacqueline Spencer, MD, MPH.

VA National Center on Homelessness Among Veterans Quality Improvement Project Team: Lillian Gelberg, MD, MSPH* and Keith McInnes, ScD, MS* (*Co-PIs); Alicia Cohen, MD, MSc, FAAFP; Leah Cubanski, BA; Leah Effron, MSN, NP; Kristin Kopelson, DNP, MS, APRN; Lauren Russell, MPH, MPP; and Ynez Sabio, MSN, NP. (Quality improvement initiative funded by the VA National Center on Homelessness Among Veterans)

The numerous other VA clinical, operations, research, and administrative partners who have contributed to the development and implementation of ACORN, including the ACORN Partner Engagement Group, as well as the Veterans who have provided invaluable feedback to support this quality improvement initiative.

REFERENCES

- 1. WHO (World Health Organization). 2010. About social determinants of health. https://www.who.int/social_determinants/sdh_definition/en.
- 2. CMS Focus on Health Equity. Sep 2023. Health Equity Terminology and Quality Measures. https://mmshub.cms.gov/about-quality/quality-at-CMS/goals/cms-focus-on-health-equity/health-equity-terminology.
- 3. Alderwick H, Gottlieb LM. Meanings and Misunderstandings: A Social Determinants of Health Lexicon for Health Care Systems. *Milbank Q*. 2019 Jun;97(2):407-419.
- 4. Green K, Zook M. "When Talking About Social Determinants, Precision Matters" *Health Affairs Blog*, October 29, 2019.
- 5. Ernest Moy, Office of Health Equity, Veterans Health Administration, U.S. Department of Veterans Affairs.
- 6. The Joint Commission. National Patient Safety Goal to Improve Health Care Equity. *R3 Report*. 2022; 38: 1-8. <u>r3 npsg-16.pdf (jointcommission.org)</u>.
- 7. Centers for Medicare & Medicaid Services, The CMS Framework for Health Equity (2022-2032) (2022). cms-framework-health-equity.pdf.
- 8. Centers for Medicare & Medicaid Services. 2022. New CMS Rule Increases Payments for Acute Care Hospitals & Advances Health Equity, Maternal Health. *MLN Connects*. 2022. 2022-08-01-MLNC-SE | CMS.
- 9. National Academies of Sciences, Engineering, and Medicine. 2019. Integrating Social Care into the Delivery of Health Care: Moving Upstream to Improve the Nation's Health. Washington, DC: The National Academies Press.
- 10. Institute of Medicine. Capturing social and behavioral domains in electronic health records: phase 1. Washington, DC: The National Academies Press; 2014.
- 11. Alley DE, Asomugha CN, Conway PH, Sanghavi DM. Accountable health communities--addressing social needs through Medicare and Medicaid. N Engl J Med. 2016;374(1):8-11.
- 12. Billioux A, Verlander K, Anthony S, Alley D. Standardized screening for health-related social needs in clinical settings: the accountable health communities screening tool. NAM Perspectives. Washington, DC: National Academy of Medicine; 2017.
- 13. Page-Reeves J, Kaufman W, Bleecker M, Norris J, McCalmont K, Ianakieva V, et al. Addressing social determinants of health in a clinic setting: the WellRx Pilot in Albuquerque, New Mexico. J Am Board Fam Med. 2016;29(3):414–8.
- 14. Buitron de la Vega P, Losi S, Sprague Martinez L, Bovell-Ammon A, Garg A, James T, et al. Implementing an EHR-based screening and referral system to address social determinants of health in primary care. Med Care. 2019;57 Suppl 6 Suppl 2:S133-S9.
- 15. Health Leads. Social Needs Screening Toolkit. 30 Nov 2022. <u>The Health Leads Screening Toolkit Health Leads (healthleadsusa.org)</u>.
- 16. PRAPARE: National Association of Community Health Centers and Partners, National Association of Community Health Centers, Association of Asian Pacific Community Health Organizations, Association OPC, Institute for Alternative Futures. <a href="https://example.com/health-leads-screening-noth-lead-screening-noth-lead-sc
- 17. Wenger, Etienne, McDermott, Richard, Snyder, William M. Cultivating Communities of Practice. Harvard Business School Press. Boston. MA. 2002.
- 18. Office of Rural Health. Rural Veteran Health Care Challenges. <u>RURAL VETERANS Office of Rural Health (va.gov)</u>.
- 19. U.S. Department of Veterans Affairs. VA Priority Groups. 14 Nov 2022. VA Priority Groups | Veterans Affairs.
- 20. Wang L, Porter B, Maynard C, Evans G, Bryson C, Sun H, et al. Predicting risk of hospitalization or death among patients receiving primary care in the Veterans Health Administration. Med Care. 2013:368-73.
- 21. Center for Medicare & Medicaid Services. 2021. HL7 FHIR Connectathon; Military and Veteran SDOH. CMS2021-07 Military and Veteran SDOH - FHIR - Confluence (hl7.org).

- 22. Gravity Project. Introducing the Gravity Project. Gravity Project (thegravityproject.net).
- 23. National Library of Medicine. 2016. Overview of SNOWMED CT. Overview of SNOMED CT (nih.gov).
- 24. Regenstrief. What LOINC is. What LOINC is LOINC.
- 25. Gravity-Accepted Social Risk Screening Assessment Instruments. 2023. <u>Gravity-Accepted Social Risk Screening Assessment Instruments Gravity Project Confluence (hl7.org)</u>.
- 26. Health Level Seven International. 2022. Sync for Social Needs. Sync for Social Needs (hl7.org).
- 27. Veterans Health Administration. 2023. VA Health Care Priorities. <u>VA Health Care Priorities Veterans</u> Health Administration.
- 28. Veterans Health Administration. Long-Range Plan FY 2022-2025. <u>FY-2022-2025-VHA-Long-Range-Plan.pdf (va.gov)</u>.
- 29. The White House. 2023. The U.S. Playbook to Address Social Determinants of Health. <u>SDOH-Playbook-4.pdf</u> (whitehouse.gov).
- 30. U.S. Senate Committee on Veterans' Affairs. 2023. <u>Hearing to Consider Pending Legislation U.S. Senate Committee on Veterans' Affairs.</u>