2018 NATIONAL RYAN WHITE CONFERENCE ON HIV CARE & TREATMENT

From Pilot to Program: Implementing an Acuity-Based Medical Case Management System in Massachusetts

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Disclosures

Presenters have no financial interest to disclose.

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Learning Objectives

At the conclusion of this activity, the participant will be able to:

1. Describe components of an acuity tool pilot process and evaluation, including methods for implementation across a service system.

2. Understand a process for engaging medical case management (MCM) providers in the development of a high-quality acuity tool and in the creation of a practical and useful implementation protocol.

3. Identify ways to utilize an acuity tool for planning, monitoring, and improving MCM service delivery.

Begin at the beginning

We all start somewhere

SPECTRuM Pilot

HRSA SPNS grant:

Systems Linkages and Access to Care for Populations at High Risk of HIV Infection

- **S**trategic **P**eer-**E**nhanced **C**are, **T**reatment and **R**etention **M**odel (SPECTRuM)
  - The goal of SPECTRuM was to expand access to, and improve retention in, HIV care and treatment for out-of-care PLWH
    - Strategy 1: Employ peer-nurse teams to provide intensive services as an enhancement to routine HIV/AIDS (MCM) interdisciplinary care teams operating within the existing HIV health care service delivery system.
    - Strategy 2: Implement a mechanism for MDPH HIV Surveillance to communicate with health care providers regarding clients who may be out-of-care or who have not reached viral suppression.

SPECTRuM Acuity Tool

Once patients were identified as out of care or not virally suppressed, nurses needed a way to assess needs and barriers to care

- Acuity Tool was designed by pilot participants

- Used clinical screening tools as a guide
  - GAD-7
  - Cage AID
  - PHQ-9

- Tool then used to assess progress along the way

The pilot

Let’s try it out and see what happens

The pilot

- Partnered with Boston Public Health Commission (BPHC), the MA Part A recipient, and the Boston University Center for Innovation in Social Work & Health for the analysis

- Pilot ran from November 1, 2014 through April 30, 2015

- State-wide meeting for all Part A and B funded medical case management (MCM) programs
    - Participants received a tool kit
    - Voluntary participation in the pilot

Pilot: instructions

- Complete the acuity tool on clients throughout the pilot at prescribed intervals and fax forms to respective funders (DPH or BPHC)
- Identify a certain number of clients to enroll in the pilot:
  - Size of the agency
  - Estimated acuity of the client
- MCMs were given the tool and a summary sheet

HIV/AIDS Medical Case Management Acuity Tool Form
Massachusetts Department of Public Health and Boston Public Health Commission
Client Code:___ ___ ___| ___ ___ ___ ___ ___ ___| ___ ___ ___ ___

Area of Functioning	Intensive Need (3)	Moderate Need (2)	Basic Need (1)	Self Management (0)
Adherence to Medical Care and Treatment and Health Status				
Care Adherence *Acuity level:*	☐Has missed two or more consecutive medical appointments in the last 6 months ☐ Has not been seen by medical team in the last six months	☐Has missed one or two (non-consecutive) HIV medical appointment in the last 6 months but has been seen by member of medical team	☐Has attended all HIV medical appointments in the last 6 months but may have missed an appointment within the last 12 months or has rescheduled multiple appointments	☐Has attended all HIV medical appointments in the last 12 months
Current Health Status *Acuity level:*	☐Has detectable VL and CD4 below 200 and refuses ARVs ☐Has current OI and is not being treated or refuses treatment ☐Has been hospitalized in last 30 days ☐ Newly diagnosed within last six months and concurrently diagnosed with AIDS	☐Has detectable VL and low CD4 below 350 and refuses ARVs ☐Has history of OI in last six months which are treated and client using prophylaxis (if indicated) ☐Has been hospitalized in last six months ☐ Newly diagnosed within last six months and high CD4 (over 350)	☐Has detectable VL but is on ARVs ☐Has no history of OIs in last six months or is on treatment for an OI ☐Has had no hospitalizations in last six months	☐Is virally suppressed ☐Has no history of OIs in last 12 months ☐Has no history of hospitalizations in last 12 months
Medication Adherence *Acuity level:*	☐Misses doses daily ☐Needs directly-observed therapy (DOT) or other intensive adherence support ☐ Experiences significant adverse side effects that impact adherence	☐Misses doses weekly ☐Is starting new antiretroviral (ARV) treatment regimen ☐ Moderate adverse side effects that occasionally impact adherence	☐Misses doses monthly, or on occasion ☐Minimal sides effects or effectively manages side effects with no impact on adherence	☐Rarely or never misses a dose of prescribed medications ☐ No side effect concerns reported

Acuity Summary Sheet

Client Code: M A R| 0 1 0 1 1 9 9 0 | 1 2 3 4

3	2	1	0
Intensive Need	Moderate Need	Basic Need	Self Mgmt

Date Completed	09/01/14				__/__/__			
Medical - Care Adherence	3	2	1	0	3	2	1	0
Medical - Current Health Status	3	2	1	0	3	2	1	0
Medical - Medication Adherence	3	2	1	0	3	2	1	0
HIV Literacy and HIV/HCV/STI Knowledge	3	2	1	0	3	2	1	0
Sexual/Reproductive Health Promotion	3	2	1	0	3	2	1	0
Mental Health	3	2	1	0	3	2	1	0
Alcohol and Drug Use	3	2	1	0	3	2	1	0
Housing	3	2	1	0	3	2	1	0
Legal	3	2	1	0	3	2	1	0
Living Situations/Support Systems	3	2	1	0	3	2	1	0
Income/Personal Finance Management	3	2	1	0	3	2	1	0
Transportation	3	2	1	0	3	2	1	0
Nutrition	3	2	1	0	3	2	1	0
Overall Acuity Score (Add up the total points from each line to determine the total) ***27 – 39 pts: Intensive MCM*** ***14 – 26 pts: Moderate MCM*** ***1 – 13 pts: Basic MCM*** ***0: Self Management***	3+3+3+1+2+0+1+2+2 +2+2+2+2= 25							

What criteria did not accurately reflect your understanding of the clients?

How would you change or edit existing criteria or what additional criteria would you add to better reflect the client's need?

Additional Notes:

09/01/14: Completed with Ct. in office. Due to issues with medication adherence, Ct. should be monitored closely & reassessed in 1 month (10/01/14). Signed MM.

Giving input and feedback

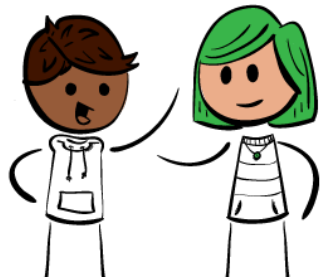
In addition to marking the acuity level for each area of functioning, participants responded to the following prompts:

1) What criteria did not accurately reflect your understanding of the client's need?
2) How would you change or edit existing criteria or what additional criteria would you add to better reflect the client's need?

The post pilot survey included questions about the ease of use of the tool, suggestions for change, areas for improvement, etc.

Methodology

Phase 1: use the tool



- 38 MCM sites participated
  - 25 Part B
  - 13 Part A (including NH)

- Data entry & analysis of acuity forms from 38 sites
  - 761 MCM Clients
  - 825 summary score forms
  - 74% had 2 scores (required to see if acuity changed over time)

Phase 2- Site Visits

Validation of scores

- Evidence in the client chart that the score given by the MCM matched the acuity score
- Review medical and case management records
  - MCM assessment & Reassessment forms
  - Lab forms
  - Clinician/MCM notes
- Reviewed first and last scores – change over time?

Interviews with MCM staff

- How did you use the acuity tool?
- What were the strengths and limitations of the acuity tool?
- What modifications/ recommendations would you make to the areas of functioning or scoring criteria?
- How did you use the information?
- What recommendations do you have for future implementation?

Analysis

Descriptive analysis of case management scores

Limited sample to clients with at least 2 scores (protocol)

Validation:

Examine level of agreement between case management scores & site visit scores

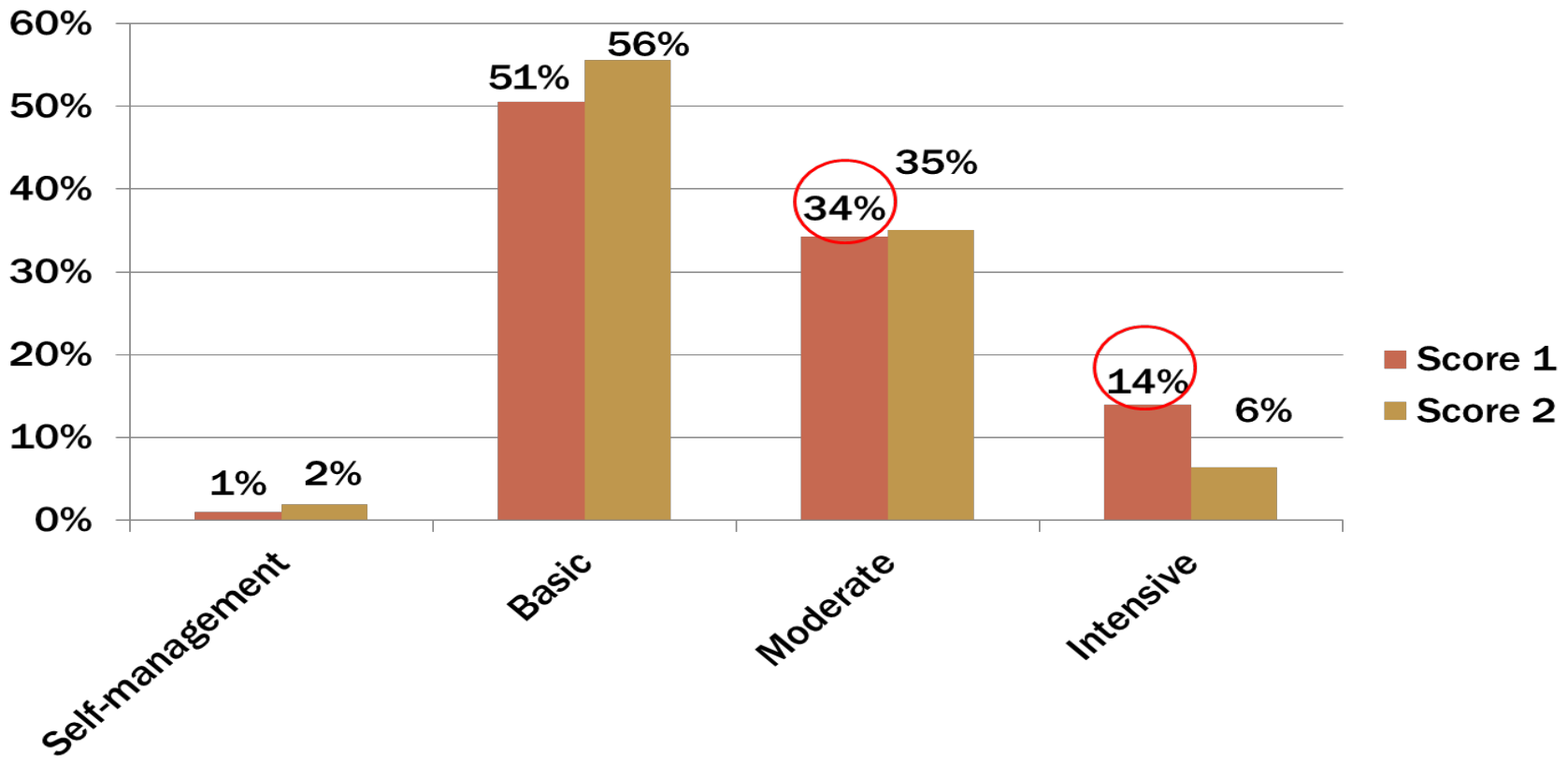
Interview data:

Findings included themes mentioned by at least 2 sites

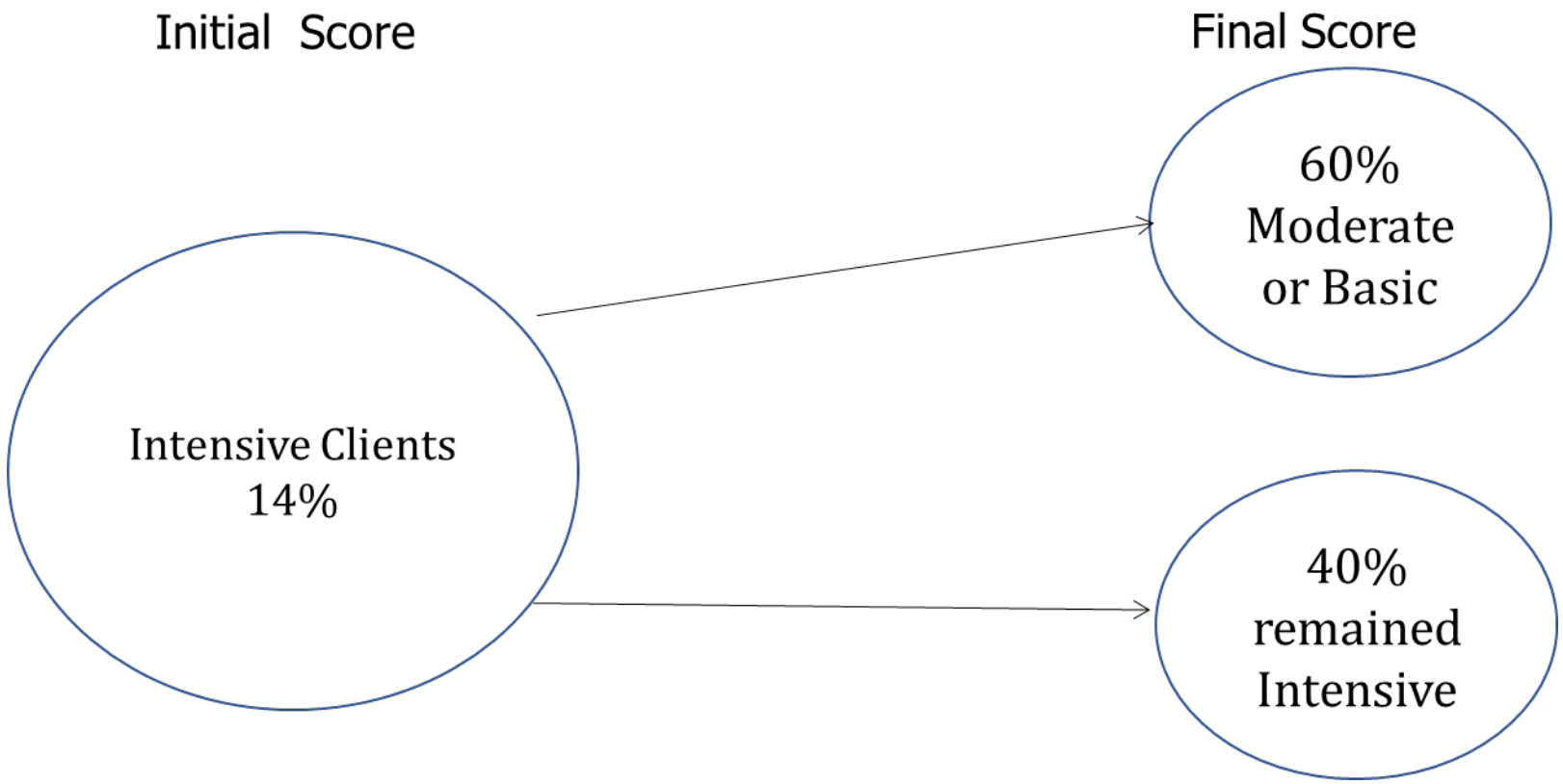
Breakdown of the data

	Number of Clients	Number of Scores
Overall	761	1542
Funder		
BPHC	255 (34%)	481 (31%)
OHA	506 (66%)	1061 (69%)
Agency Type		
Medical	381 (50%)	754 (49%)
Non-medical	380 (50%)	788 (51%)
Region		
Cape & Islands	38 (5%)	49 (3%)
Central	58 (8%)	108 (7%)
Greater Boston/Metrowest	314 (41%)	627 (41%)
New Hampshire	36 (5%)	72 (5%)
Northeast/Northshore	40 (5%)	91 (6%)
Southeast/South shore	160 (21%)	371 (24%)
West	115 (15%)	224 (14%)

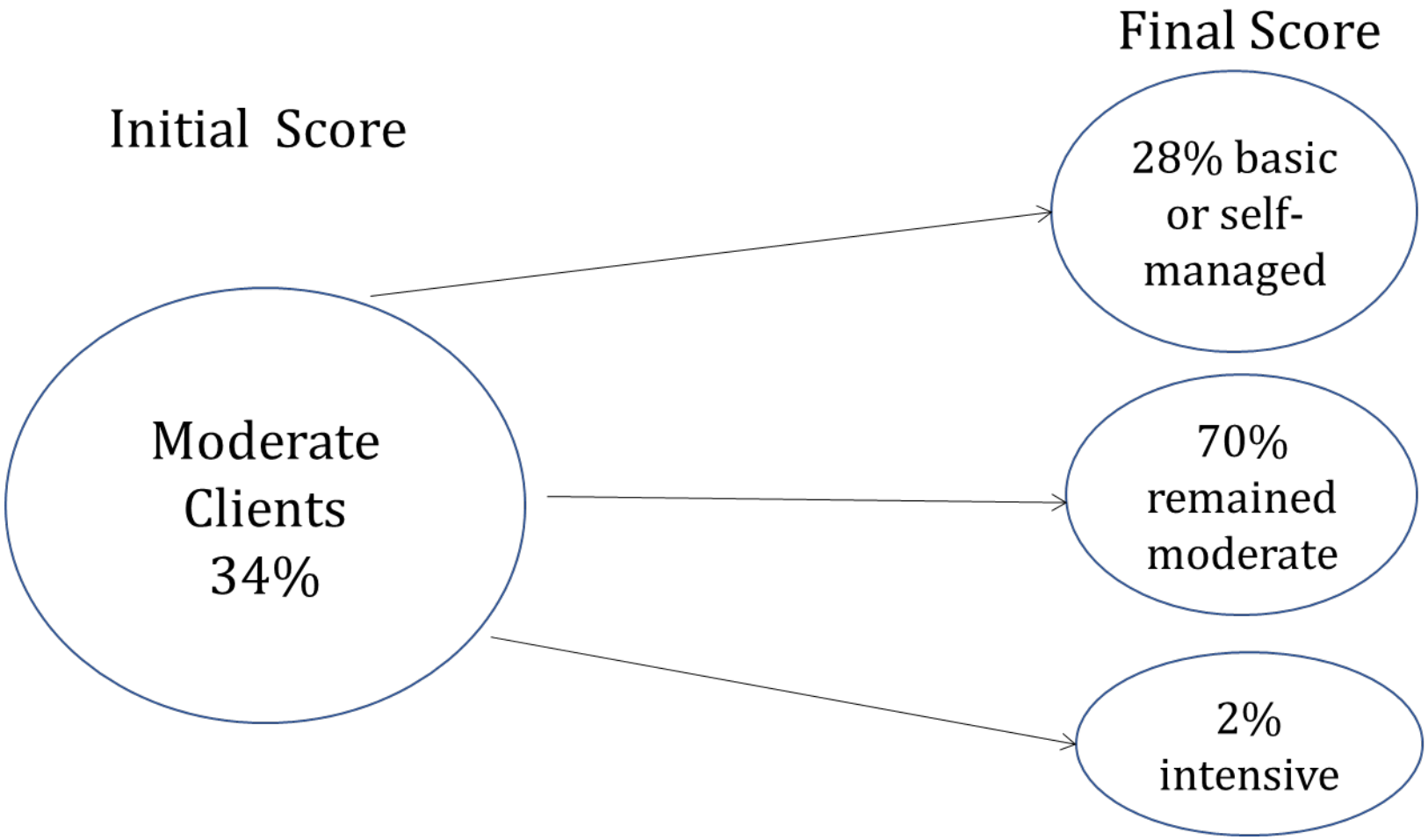
Proportion of Clients with an initial & final score



Progress of Intensive clients



Progress of Moderate clients



Validation Results

Fair level of agreement between reviewers scores and MCM scores

No difference between agency type (medical vs. non medical) or region

Areas of functioning with higher levels of agreement:

- Care adherence
- Current health status
- Substance use
- Mental Health
- Housing
- Transportation
- Income

Poor agreement:

- HIV knowledge
- Nutrition

Summary

- Tool was implemented according to project design, including client selection
- 74% of agencies submitted data per pilot instructions
- Data from the validation process show fair reliability
- It was consistently difficult to obtain documented data for a few areas:
  - HIV Knowledge
  - Sexual/Reproductive Health
- Largest proportion of clients fell into Basic level
- Participants felt that tool could be useful, with some modifications, and additional clarification of purpose and definitions

Feedback: positive

- Several agencies used it, or saw how it could be used, to assign caseloads
- Comprehensive; useful in capturing areas of functioning
- Many agencies liked the idea of using the tool to track client progress, similar to an outcome measure tool
- Mixed results about usefulness in the ISP process
- Several agencies liked it because it reminded them of what they should be doing with a client, or areas they might have overlooked

Feedback: areas for improvement

- "Too focused" on HIV
  - Neglects other health issues (e.g. diabetes, cancer, hepatitis)
  - HIV is under control but other issues are impacting their functioning (e.g. homelessness, physical and mental disabilities, and mental health/substance use issues)
- Doesn't capture the up-and-down nature of living with HIV
- Lack of cultural competency
  - Too targeted toward specific groups (e.g. MSM, IDU)
  - Doesn't address cultural differences around norms and practices (e.g. sending money home; only visiting the doctor when you are really sick; beliefs about health and medication)
  - Language not sensitive to non-English speaking patients

Criteria and Scoring

- Almost unanimous agreement that due to limitations, clients' scores did not always reflect MCM's assessment of need
- Unclear whether to score clients as they are or as they would be without current services
- Client self-assessment different from provider assessment
- Tool doesn't adequately capture other issues that impact clients' lives
- Doesn't reflect the actual amount of time and energy spent working with clients
- Specific feedback was given about criteria – these were incorporated into the new version

Recommendations

- More clarification needed on the purpose
- Improve usability and objectivity
  - Remove (or define) words such as “some level”, “significant” or “extreme”
  - Define more clinical terms
  - Replace ‘and” with “or”
- Re-define scoring ranges
- Notes section
- Training

Other Recommendations Explored

- Weighting items (most said no)
- Electronic version
- Edit the tool; too wordy and too long
- Formatting issues (e.g. line up similar items across an area of functioning)

Can we make this work in the real world?

Taking it back to providers

Plan for wide-scale implementation

- October-December 2015
- Given the feedback, what could we have done better?
  - Add in Areas of Function that were missing:
    - Insurance
    - Non-HIV related health
    - Notes section
  - Deleted or re-worked Areas of Function that didn't work:
    - Health Literacy
    - Legal Status
- Made significant edits

Let's take this to the people

- Released Acuity 2.0 at a large cross-part meeting in January 2016
- Asked all Part B funded MCM providers to being using the tool in Jan 2016
- February-June 2016: embarked on a state-wide "listening and TA" tour
  - 32MCM programs across 6 geographic regions of the Commonwealth
  - 20 sessions total
  - All funded MCM programs participated
  - Used the opportunity for training

Acuity working group

- 7 providers representing all the kinds of funded MCM programs
  - Large hospital
  - Health center
  - CBO
  - Correctional setting
  - Supportive housing program
  - All regions represented

- Also included HIV+ peers and providers to get a consumer perspective
- Provided feedback on the edits, language, flow, format, etc.
- Final approval

The final product

- Released July 1, 2016 (start of FY17)
- 14 Areas of Function
- Room for notes
- Fillable/printable excel document
  - Automatically calculated scores
  - Scores over time (until CAREWare in FY18)
- Scoring:
  - 0: self-management
  - 1: basic need
  - 2: moderate need
  - 3: high need
- Guidance
  - Reporting in data collection system
  - How to complete the tool
- Consistency in interpretation of the tool
- Providers have some room for flexibility
- Care Access level of service (stay tuned)

The final product: scoring

- Each area gets a score based on the highest acuity score received in that section
- Check off all boxes that apply
- MCM discretion- use notes

Basic acuity: 1-14

- Core components of MCM
  - Referrals, appointment reminders, assistance with applications
  - Does not necessarily mean “low need”

Moderate acuity: 15-28

High acuity: 29-42

Note: Score of 0 = self-management = discharge/graduate from MCM

Acuity Assessment: Areas of Function

HIV Care Adherence:

- Missing medical appointments, MCM or other apts with care team
- Focused on client's engagement with medical provider and appointment adherence

Current HIV Health Status:

- Viral Load
- OIs and hospitalizations due to HIV related issues
- New diagnosis/new to MCM

Non-HIV related health issues (post pilot addition)

- HCV, cancer, diabetes
- How non-HIV medical issues impact a person

Acuity Assessment: Areas of Function

HIV Medication Adherence

- Missed doses
- Significant adverse side effects
- Health literacy

Health Insurance & HDAP Status

- No insurance/Ineligible for insurance
- Ability to pay
- Amount of assistance needed to maintain coverage and complete applications

Sexual/Reproductive Health Status

- Condom access and use
- Discussion of HIV status
- Engagement in transactional sex or commercial sex work
- Sero-discorant relationships and pregnancy
- PrEP usage by partner

Acuity Assessment: Areas of Function

Current Mental Health Status

- Clinical diagnosis vs. chaotic life
- Desire to or actual engagement with a mental health provider
- Adherence to prescribed psychotropic medications
- The dependence of clients on the MCM provider/agency for general mental health

Current Substance Use

- Dependence on drugs and/or alcohol
- Effect of use on adherence and daily living
- Connection to or need for treatment
- Engagement in or desire for recovery
- Impact on HCV and other health issues

Acuity Assessment: Areas of Function

Current Housing Status

- Living situation
  - Living in place not meant for habitation (street, car, etc) vs. doubled up, etc.
- Facing eviction and safety issues
- Difficulty managing activities of daily living
- Consistent challenges with maintaining housing (including financial)
- Currently or recently incarcerated

Current Legal Status

- Facing eviction
- Issues related to discrimination (employment, housing, etc)
- Standard legal documents (wills, guardianship, etc.)
- Documentation status

Acuity Assessment: Areas of Function

Current Living Situation/Support Systems

- Current or past interpersonal relationship violence
- Adequacy and impact of support systems on the client
- Discussion of HIV status and the impact on social support
- Reliance on the agency for social activity/connection

Current Income/Personal Finance Management Status

- Financial stability (needs vs. wants)
- Ability to complete applications
- Representative payee involvement

Acuity Assessment: Areas of Function

Transportation and Mobility Status

- Lacks access to transportation for medical and other necessary appointments
- Ability to coordinate/access transportation
- Reliance on MCM

Current Nutritional Status

- Access to food
- Medical necessity
- Food desserts

New level of service: Care Access

Care Access

- Client scores 1-8 on acuity scale
- Cannot get higher than a “1” in any area of function

Meeting criteria means that MCM completes an acuity assessment every 6 months, but no ISP is needed.

Level of service for clients who intermittently need a low level of support throughout the year.

Implementing acuity

Does this thing really work?

Acuity in action

- In July 2016 (start of FY17) the final version was released
- Guidance released:
  - Acuity assessment to replace all 6 month reassessments
  - Should be completed as a base-line for all new clients
  - Designed to be completed without the client (ISP still a completely client-driven document)
- July 2017 acuity areas of function added to CAREWare
- July 2018 additional fields added to CAREWare

Acuity data summary - overview

- Time period: November 1, 2017 to September 30, 2018
  - New funding period for agencies began November 1, 2017.

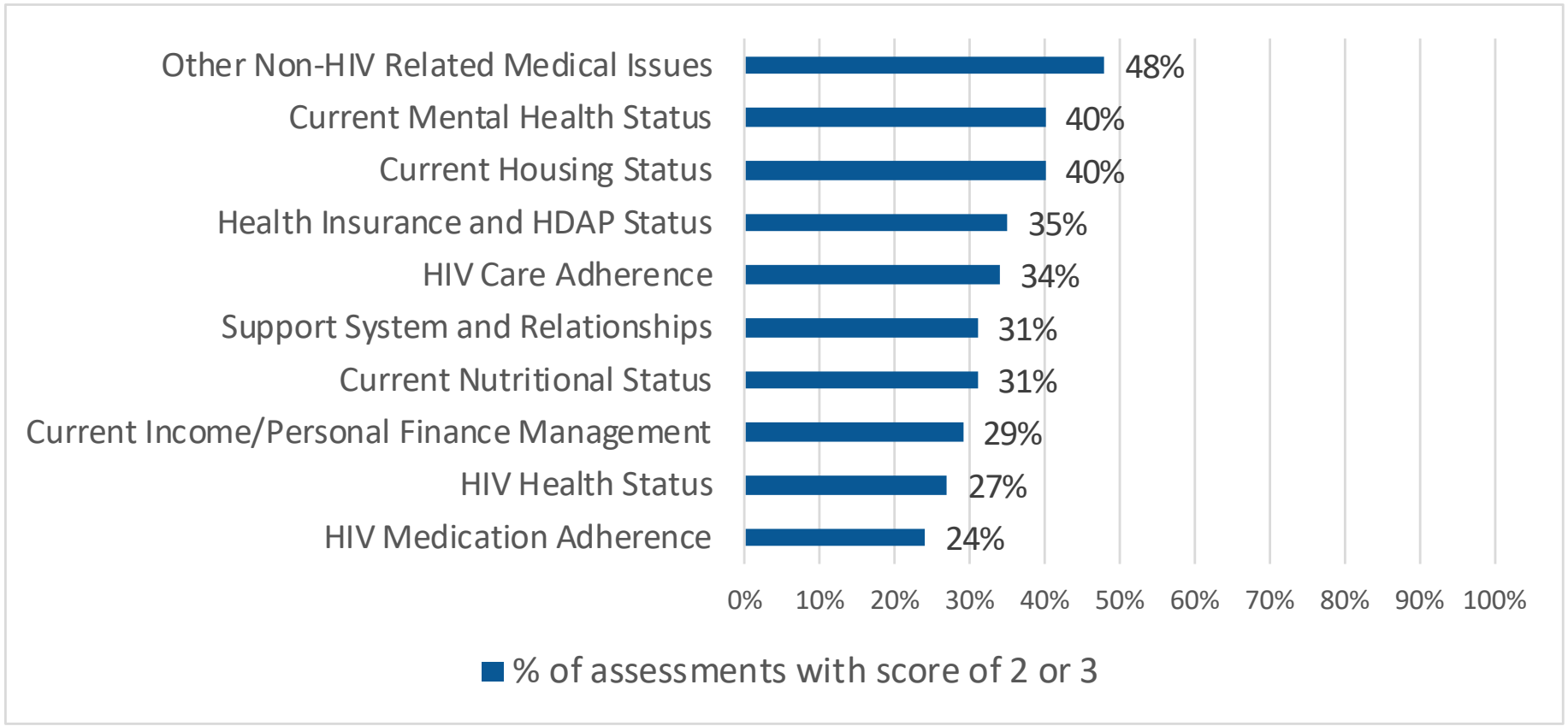
- **6,179** total clients (de-duplicated) reported to the Office of HIV/AIDS
  - **5,308 (86%)** clients receiving *medical case management*

  - **802 (13%)** clients receiving *Active Retention in Care and Health services (ARCH)*

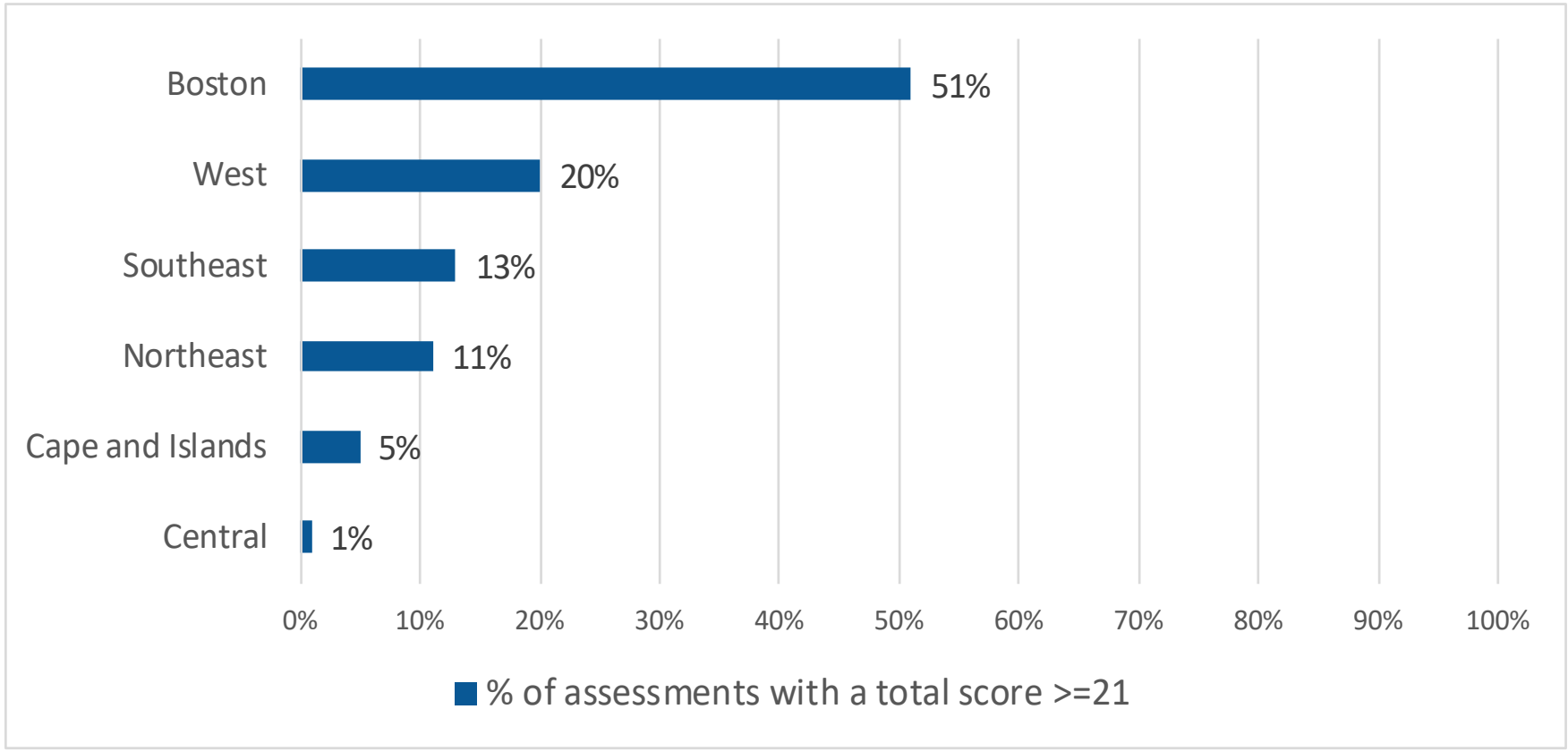
Acuity data summary – key takeaways

- Overall results (n=3,360):
  - 18% of scores were high acuity (score of >=21)
- Over half of assessments with high acuity (score >=21) were from agencies in the Boston area.
- Assessments with high acuity were split fairly evenly across medical and non-medical agencies.
- Over half of ARCH acuity assessments were high acuity (score of >=21).
- Almost half of assessments had high acuity (score of 2 or 3) for the "other non-HIV related medical issues" area of function.

Acuity data summary – by area of function



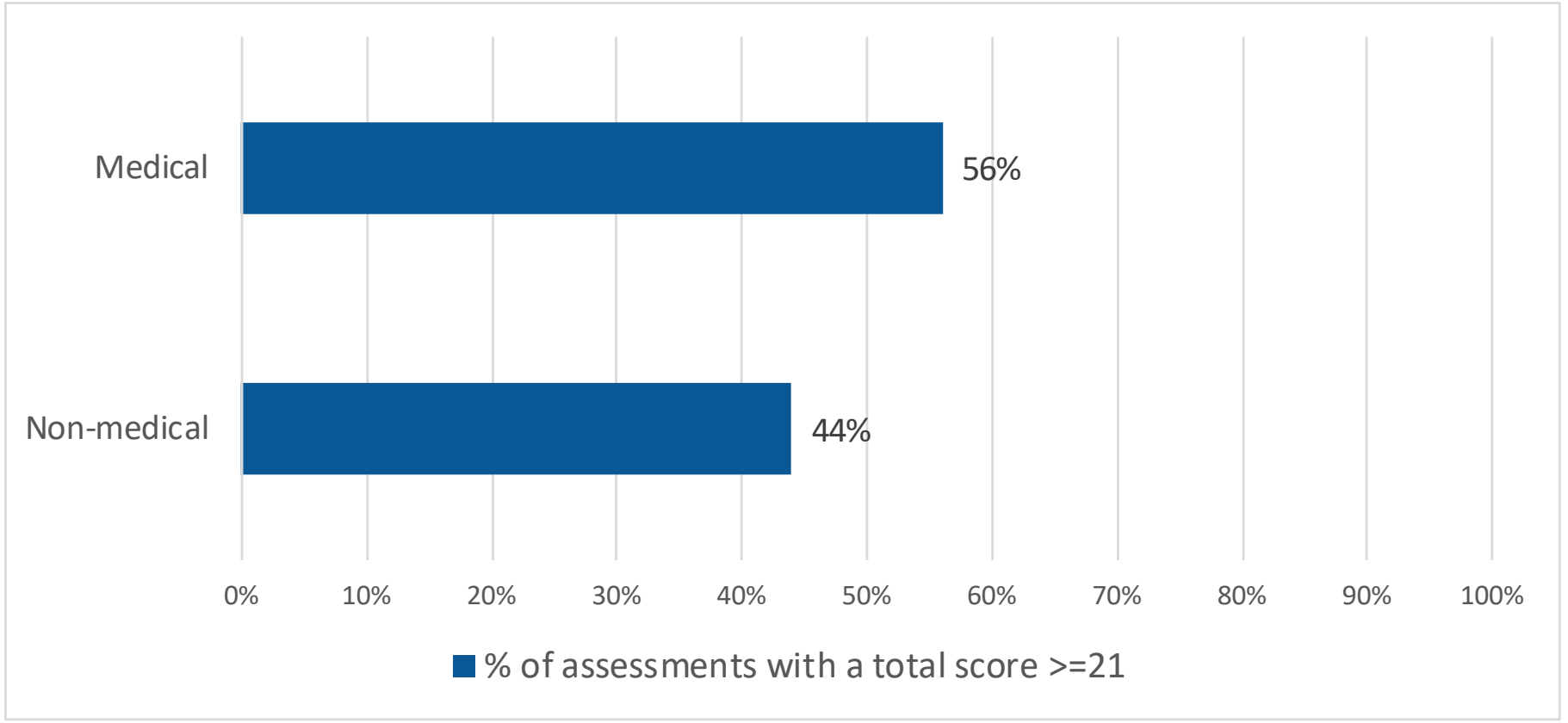
Acuity data summary – by agency region



Over half of assessments with high acuity (score >=21) were from agencies in the Boston area.

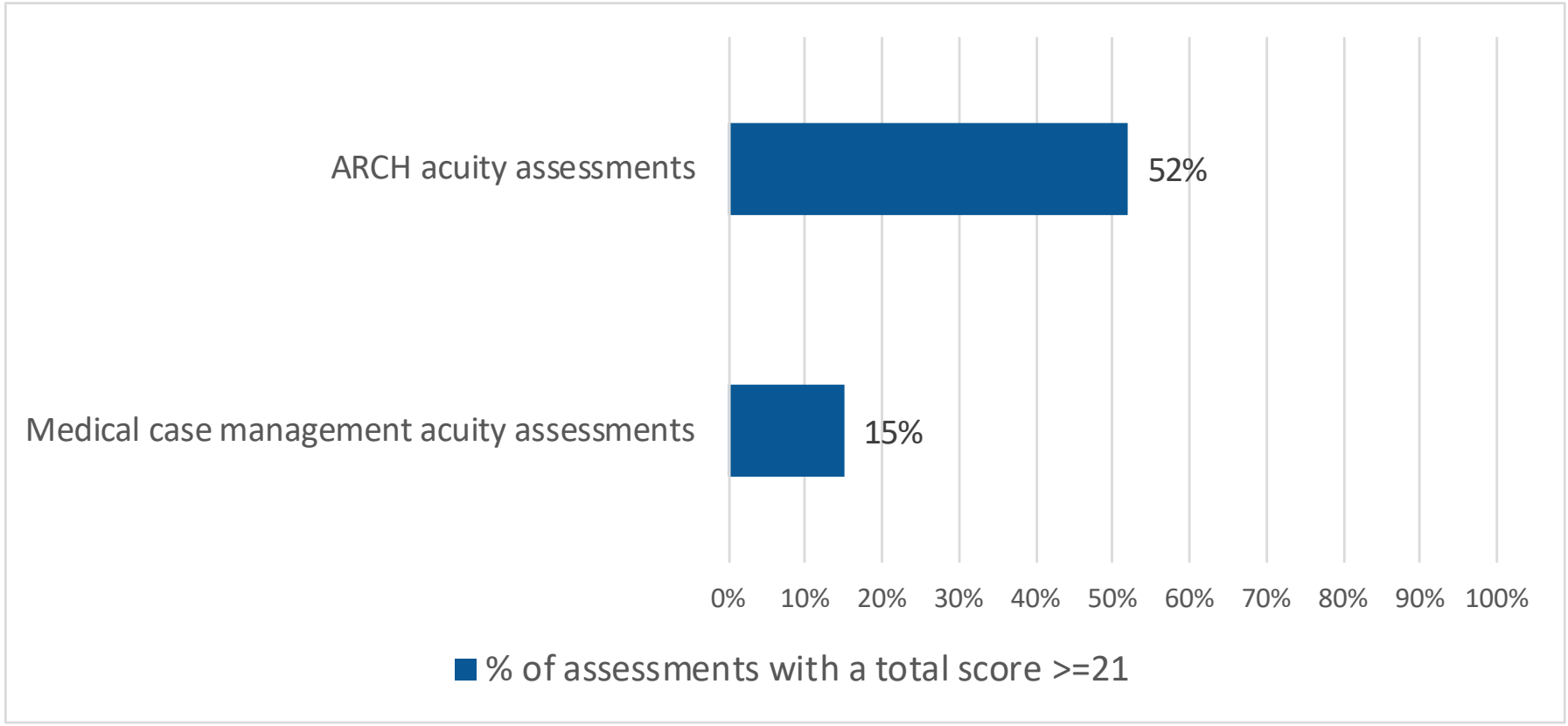
Region reflects the agency's location. Boston = 15 agencies; Cape and Islands = 3; Central=5; Northeast=4; Southeast=9; West=9

Acuity data summary – by agency type



Agencies designated as medical; 24 as non-medical

Acuity data summary – by service type



Over half of ARCH acuity assessments were high acuity (score >=21).

So…what do providers think?

What will the future hold?

- MA Part D has adapted an it is in use
- Monitoring contracts
- CQI projects

- Prevention Acuity
  - Redesign of MA Behavioral Risk Assessment tool for prevention clients

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