

References and Resources for Extended Learning Opportunity #3:

Program Evaluation Intensive:

Practical Training in Selecting Measures and Data Collection Methods to Obtain Useful Outcome Data

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General workshop bibliography

Funderburk, J. S., & Shepardson, R. L. (2017). Real-world program evaluation of integrated behavioral health care: Improving scientific rigor. *Families, Systems, & Health, 35*, 114-124. doi:10.1037/fsh0000253

Peek, C. J., Cohen, D. J., & deGruy, F. V. (2014). Research and evaluation in the transformation of primary care. *American Psychologist, 69*, 430-442. doi:10.1037/a0036223

Peikes, D., Taylor, E., Genevro, J., & Meyers, D. (2014). A guide to real-world evaluations of primary care interventions: Some practical advice. Retrieved on 14 February 2019.

https://pcmh.ahrq.gov/sites/default/files/attachments/PCMH_Evaluation_Guide.pdf

*This is a very helpful resource

Smith, J. D., & Polaha, J. (2017). Using implementation science to guide the integration of evidence-based family interventions into primary care. *Families, Systems, & Health, 35*, 125-135. doi:10.1037/fsh0000252

Sunderji, N., Ion, A., Ghavam-Rassoul, A., & Abate, A. (2017). Evaluating the implementation of integrated mental health care: A systematic review to guide the development of quality measures. *Psychiatric Services, 68*, 891-898. doi:10.1176/appi.ps.201600464

Other references cited

Polaha, J., & Sunderji, N. (2018). A vision for the future of Families, Systems, & Health: Focusing on science at the point of care delivery. *Families, Systems, & Health, 36*, 421-426.

Proctor, E., Silmere, H., Raghavan, R., Hovmand, P., Aarons, G., Bunger, A., Griffey, R., & Henlsey, M. (2011). Outcomes for implementation research: Conceptual distinctions, measurement challenges, and research agenda. *Administration and Policy in Mental Health, 38*, 65-76.

Polaha, J., & Sunderji, N. (2019). Patient access: How do we measure it? *Families, Systems, & Health, 37*, 191-194.

Hiefner, A. R., & Woods, S. B. (2019). Implementing integrated behavioral health: Testing associations between shared clinical time and space and provider referrals. *Families, Systems, & Health, 37*, 206-211.

Beehler, G. P., Lilienthal, K. R., Possemato, K., Johnson, E. J., Shepardson, R. L., Vair, C. V., ... & Wray, L. O. (2017). Narrative review of provider behavior in primary care behavioral health: How process data can inform quality improvement. *Families, Systems, & Health, 35*, 257-270.

Other useful references

Muse, A. R., Lamson, A. L., Didericksen, K. W., & Hodgson, J. L. (2017). A systematic review of evaluation research in integrated behavioral health care: Operational and financial characteristics. *Families, Systems, & Health, 35*, 136-154.

Martin, M. P. (2017). Integrated behavioral health training for primary care clinicians: Five lessons learned from a negative study. *Families, Systems, & Health, 35*, 352-359.

Extremely helpful articles detailing “how we did it” from *Families, Systems, & Health* special issue on conducting research and evaluation in real-world healthcare settings

Example of tracking delivery of specific interventions

Craner, J. R., Sawchuk, C. N., Mack, J. D., & LeRoy, M. A. (2017). Development and implementation of a psychotherapy tracking database in primary care. *Families, Systems, & Health, 35*, 207-216.

Example of using health care utilization and claims data

Peterson, M., Turgeson, J., Fisk, L., & McCarthy, S. (2017). Integrated care in rural health: Seeking sustainability. *Families, Systems, & Health, 35*, 167-173.

Example of developing a partner with academic institution to assist with research

Bridges, A. J., Villalobos, B. T., Anastasia, E. A., Dueweke, A. R., Gregus, S. J., & Cavell, T. A. (2017). Need, access, and the reach of integrated care: A typology of patients. *Families, Systems, & Health, 35*, 193-206.

Example of using Excel for data analysis

Smith, P. C., Brown Levey, S. M., & Lyon, C. (2017). Evaluating transformation with available resources: The influence of APEX on depression screening. *Families, Systems, & Health, 35*, 238-247.

Example of identifying project champions

DeCaporale-Ryan, L. N., Ahmed-Sarwar, N., Upham, R., Mahler, K., & Lashway, K. (2017). Reducing hospital readmission through team-based primary care: A 7-week pilot study integrating behavioral health and pharmacy. *Families, Systems, & Health, 35*, 217-226.

Examples of full-time clinicians finding time for research and using EMR data to evaluate fidelity to PCBH model

Fondow, M., Zeidler Schreiter, E., Thomas, C., Grosshans, A., & Serrano, N. (2017). Initial examination of characteristics of patients who are high utilizers of an established primary care behavioral health consultation service. *Families, Systems, & Health, 35*, 184-192.

Sample Measures for IPC Evaluation

Examples of Implementation Outcomes

Adoption

- % of providers within your clinic who are adhering to IPC
- % of clinics with your organization that are delivering IPC

Reach

- Population penetration rate: % of primary care patients who have had contact with BHC (or other IPC providers) (in the past year)
- % of patients who should receive a given intervention (e.g., eligible based on diagnosis or referral) who do receive it

Expanded Primary Care Behavioral Health Provider Adherence Questionnaire (PPAQ-2)

Self-report survey for providers to measure fidelity to PCBH and CCM models
 PCBH model (42 items) and Collaborative Care Management model (52 items)
 Likert scale from 1 (never) to 5 (always)
 Good psychometric properties

PCBH Domains	CCM Domains
Clinical Scope & Interventions (4)	Patient Identification (2)
Consultation, Collaboration, & Interprofessional Communication (7)	Patient Education, Self-Management Support, & Psychological Intervention (14)
Practice & Session Management (19)	Supervision & Care Coordination (10)
Referral Management & Care Continuity (8)	Measurement-based Care & Protocol Adherence (23)
Prohibited (4)	Panel Management (3)

Beehler, G. P., Funderburk, J. S., Possemato, K., & Dollar, K. M. (2013). Psychometric assessment of the Primary Care Behavioral Health Provider Adherence Questionnaire (PPAQ). *Translational Behavioral Medicine, 3*, 379-391.

Beehler, G. P., Funderburk, J. S., King, P. R., Possemato, K., Maddoux, J. A., Goldstein, W. R., & Wade, M. (2019 May 18). Validation of an expanded measure of integrated care provider fidelity: PPAQ-2. *Journal of Clinical Psychology in Medical Settings*. doi:10.1007/s10880-019-09628-0. [Epub ahead of print]

Beehler, G. P., & Lilienthal, K. R. (2017). Provider perceptions of an integrated primary care quality improvement strategy: The PPAQ toolkit. *Psychological Services, 14*, 50-56.

Examples of using administrative data to evaluate fidelity to PCBH model

- Mean duration of BHC visits
- % of BHC visits that are ≤30 minutes
 - 16-37 minute psychotherapy code
 - 1-2 15-minute health & behavior code
- % of BHC visits that occur same day
- Mean number of BHC visits per episode of care
- % of BHC patients with ≤4 visits per episode of care
- Frequency of visits: % that are biweekly to monthly or less vs. weekly

Acceptability of Intervention Measure (AIM), Intervention Appropriateness Measure (IAM), and Feasibility of Intervention Measure (FIM)

Brief measures of intervention implementation
 Each measure has 4 items on Likert scale from 1 (completely disagree) to 5 (completely agree)
 All have strong psychometric properties and are sensitive to change

Acceptability	Appropriateness	Feasibility
(Int) meets my approval	(Int) seems fitting	(Int) seems implementable
(Int) is appealing to me	(Int) seems suitable	(Int) seems possible
I like (int)	(Int) seems applicable	(Int) seems doable
I welcome (int)	(Int) seems like a good match	(Int) seems easy to use

Weiner, B. J., Lewis, C. C., Stanick, C., Powell, B. J., Dorsey, C. N., Clary, A. S., ... & Halko, H. (2017). Psychometric assessment of three newly developed implementation outcome measures. *Implementation Science, 12*:108.

Patient Outcomes

Note: Almost all of the measures cited here have had extensive psychometric validation. We do not summarize the reliability and validity information here, but these measures were chosen for being solid measures.

Patient Health Questionnaire-9 (PHQ9)

- Widely used 9-item measure of depressive symptom severity
- Can use scoring algorithm to make tentative “diagnosis” of major depressive episode
- Item 9 assesses morbid/suicidal ideation (PHQ8 omits this item)

Kroenke, K., Spitzer, R. L., & Williams, J. B. W. (2001). The PHQ-9: Validity of a brief depression severity measure. *Journal of General Internal Medicine, 16*, 606-613.

Kroenke, K., Spitzer, R. L., Williams, J. B. W., & Lowe, B. (2010). The Patient Health Questionnaire somatic, anxiety, and depressive symptom scales: A systematic review. *General Hospital Psychiatry, 32*, 345-359.

Kroenke, K., Strine, T. W., Spitzer, R. L., Williams, J. B., Berry, J. T., & Mokdad, A. H. (2009). The PHQ-8 as a measure of current depression in the general population. *Journal of Affective Disorders, 114*, 163-173.

Generalized Anxiety Disorder-7 (GAD7)

- Widely used 7-item measure of anxiety symptom severity
- Originally designed for GAD, but found to be a good screening tool for symptoms of all major anxiety disorders

Spitzer, R. L., Kroenke, K., Williams, J. B. W., & Lowe, B. (2006). A brief measure for assessing generalized anxiety disorder. *Archives of Internal Medicine, 166*, 1092-1097.

Kroenke, K., Spitzer, R. L., Williams, J. B., Monahan, P. O., & Lowe, B. (2007). Anxiety disorders in primary care: Prevalence, impairment, comorbidity, and detection. *Annals of Internal Medicine, 146*, 317-325.

Overall Anxiety Severity and Impairment Scale (OASIS)

- 5-item measure assessing both anxiety symptom severity as well as functional impairment
- Designed to be used across the spectrum of anxiety disorders and severity levels

Norman, S. B., Cissell, S. H., Means-Christensen, A. J., & Stein, M. B. (2006). Development and validation of an Overall Anxiety Severity and Impairment Scale (OASIS). *Depression and Anxiety, 23*, 245-249.

Campbell-Sills, L., Norman, S. B., Craske, M. G., Sullivan, G., Lang, A. J., Chavira, D. A., ... & Stein, M. B. (2009). Validation of a brief measure of anxiety-related severity and impairment: The Overall Anxiety Severity and Impairment Scale (OASIS). *Journal of Affective Disorders, 112*, 92-101.

Overall Depression Severity and Impairment Scale (ODSIS)

- 5-item measure assessing both depression symptom severity as well as functional impairment
- Designed to be used across the spectrum of depression disorders and severity levels
- Modeled after OASIS – note much psychometric work has been done for this measure comparatively

Bentley, K. H., Gallagher, M. W., Carl, J. R., & Barlow, D. H. (2014). Development and validation of the Overall Depression Severity and Impairment Scale. *Psychological Assessment, 26*, 815-830.

PTSD Checklist for DSM-5 (PCL5)

- Widely used 20-item measure of PTSD symptom severity
- Can use scoring algorithm to make tentative “diagnosis” of PTSD

Blevins, C. A., Weathers, F. W., Davis, M. T., Witte, T. K., & Domino, J. L. (2015). The Posttraumatic Stress Disorder Checklist for DSM-5 (PCL-5): Development and initial psychometric evaluation. *Journal of Traumatic Stress, 28*, 489-498.

Behavioral Health Measure-20 (BHM-20)

- 20-item measure with 3 subscales: well-being, psychological symptoms, and life functioning
- *May require a fee for use

Kopta, S. M., & Lowry, J. L. (2002). Psychometric evaluation of the Behavioral Health Questionnaire-20: A brief instrument for assessing global mental health and the three phases of psychotherapy. *Psychotherapy Research, 12*, 413-426.

Kopta, M., Owen, J., & Budge, S. (2015). Measuring psychotherapy outcomes with the Behavioral Health Measure-20: Efficient and comprehensive. *Psychotherapy, 52*, 442-448.

Bryan, C. J., Blount, T., Kanzler, K. A., Morrow, C. E., Corso, K. A., Corso, M. A., & Ray-Sannerud, B. (2014). Reliability and normative data for the Behavioral Health Measure (BHM) in primary care behavioral health settings. *Families, Systems, & Health, 32*, 89-100.

Duke Health Profile

17-item measure assessing 6 aspects of health (physical, mental, social, general, perceived health, self-esteem) as well as anxiety, depression, pain, and disability
Has a complicated scoring algorithm
*May be require a fee for use

Parkerson, G. R., Broadhead, W. E., & Tse, C. K. (1991). Development of the 17-item Duke Health Profile. *Family Practice, 8*, 396-401.

CDC Healthy Days Measure

See <https://www.cdc.gov/hrqol/methods.htm>

Work and Social Adjustment Scale

5-item measure of functional impairment in work, home management, social leisure, private leisure, and close relationships

Mundt, J. C., Marks, I. M., Shear, K., & Greist, J. H. (2002). The Work and Social Adjustment Scale: A simple measure of impairment in functioning. *British Journal of Psychiatry, 180*, 461-464.

Quality of Life Enjoyment and Satisfaction Questionnaire – Short Form (Q-LES-Q-SF)

16-item measure covering a variety of life domains

Endicott, J., Nee, J., Harrison, W., & Blumenthal, R. (1993). Quality of Life Enjoyment and Satisfaction Questionnaire: A new measure. *Psychopharmacology Bulletin, 29*, 321-326.

Outcome Rating Scale

4-item visual analog scale of individual, interpersonal, social, and overall functioning
Quick to administer but have to measure the marks with a ruler
*Have to pay for group license if used at an organization

Bringinghurst, D. L., Watson, C. S., Miller, S. D., & Duncan, B. L. (2006). The reliability and validity of the outcome rating scale: A replication study of a brief clinical measure. *Journal of Brief Therapy, 5*, 23-29.

Campbell, A., & Hemsley, S. (2009). Outcome rating scale and session rating scale in psychological practice: Clinical utility of ultra-brief measures. *Clinical Psychologist, 13*, 1-9.

Duncan, B. L. (2012). The Partners for Change Outcome Management System (PCOMS): The Heart and Soul of Change project. *Canadian Psychology, 53*, 93-104.

Pain Intensity, Enjoyment of Life, and Interference with General Activity (PEG)

3 items: Pain intensity, Physical functioning, Emotional functioning
Scale: 0 (does not interfere) – 10 (completely interferes)

Krebs, E. E., Lorenz, K. A., Bair, M. J., Damush, T., Wu, J., Sutherland, J. M., Asch, S. M., & Kroenke, K. (2009). Development and initial validation of the PEG, a three-item scale assessing pain intensity and interference. *Journal of General Internal Medicine, 24*, 733-738.

Insomnia Severity Index (ISI)

7-item measure of insomnia severity

Morin, C. M., Belleville, G., Belange, L., & Ivers, H. (2011). The Insomnia Severity Index: Psychometric indicators to detect insomnia cases and evaluate treatment response. *Sleep, 34*, 601-608.

Bastien, C. H., Vallieres, A., & Morin, C. M. (2001). Validation of the Insomnia Severity Index as an outcome measure for insomnia research. *Sleep Medicine, 2*, 297-307.

Gagnon, C., Belanger, L., Ivers, H., & Morin, C. M. (2013). Validation of the Insomnia Severity Index in primary care. *Journal of American Board of Family Medicine, 26*, 701-710.

Diabetes Self-Management Questionnaire (DSMQ)

Schmitt, A., Gahr, A., Hermanns, N., Kulzer, B., Huber, J., & Haak, T. (2013). The Diabetes Self-Management Questionnaire (DSMQ): development and evaluation of an instrument to assess diabetes self-care activities associated with glycaemic control. *Health and Quality of Life Outcomes, 11*:138.

Caregiver Strain Index

Robinson, B. C. (1983). Validation of a Caregiver Strain Index. *Journal of Gerontology*, 38, 344-348.

Family-Centered Care Survey

Shields, L., & Tanner, A. (2004). Pilot study of a tool to investigate perceptions of family-centered care in different care settings. *Pediatric Nursing*, 30, 189-197.

LaVela, S. L., Turcios, S., Malhiot, A., Etingen, B., Hill, J. N., & Miskevics, S. (2016). Do perceptions of family-centered care differ in older and younger family/caregivers of U.S. veterans? *Families, Systems, & Health*, 34, 136-149.

*This article details adaptations to make the scale relevant to adult primary care patients

Examples of Access Measures

- General BHC access: number of days to 3rd next available BHC appointment
- General PCP access: number of days to 3rd next available PCP appointment
- Same-day access: % of PCBH initial visits occurring on the same day as a primary care (medical) visit
- Open access: % of BHC grid that is not filled with scheduled appointments
- BHC productivity: average number of BHC appointments per 8-hour day
- Practice-wide: Ratio of BHC FTE to PCP FTE
- Telehealth: % of encounters by telephone and/or video
- EMR access: % of patients registered for personal EMR access

Examples of Continuity of Care Measures

- Referrals from screening: % screening positive (e.g., on PHQ9) on behavioral health screenings who are referred to BHC
- Specialty care: % of patients in need of specialty MH (e.g., based on SMI diagnoses or other indicators) who are (a) referred and/or (b) seen in SMH
- Engagement: % of patients who attend initial BHC appointment (after warm hand-off or referral/scheduled appointment)
- Primary care: % of primary visits with the patient's assigned PCP
- After discharge: % of patients receiving telephone follow-up from PCMH team within 48 hours of hospital discharge

Patient Experience Measures

See Consumer Assessment of Healthcare Providers and Systems (CAHPS)

<https://www.ahrq.gov/cahps/surveys-guidance/index.html>

CAHPS Clinician & Group Survey Item Set

<https://www.ahrq.gov/cahps/surveys-guidance/cg/index.html>

CAHPS Patient-Centered Medical Home Item Set

<https://www.ahrq.gov/cahps/surveys-guidance/item-sets/PCMH/index.html>

CAHPS Mental Health Care Surveys

<https://www.ahrq.gov/cahps/surveys-guidance/echo/index.html>

Maslach Burnout Inventory

Known as gold standard burnout measure

*Requires fee for use: <https://www.mindgarden.com/117-maslach-burnout-inventory>

One and two-item versions of the larger measure have been validated for research

Maslach, C., & Jackson, S. E. (1981). The measurement of experienced burnout. *Journal of Occupational Behavior*, 2, 99-113.

Rohland, B. M., Kruse, G. R., & Rohrer, J. E. (2004). Validation of a single-item measure of burnout against the Maslach Burnout Inventory among physicians. *Stress & Health*, 20, 75-79.

The National Academy of Medicine website lists several alternative measures of burnout

<https://nam.edu/valid-reliable-survey-instruments-measure-burnout-well-work-related-dimensions/>

Satisfaction of Employees in Health Care

20-item measure created elsewhere but validated in US healthcare professionals

Alpern, R., Canavan, M. E., Thompson, J. T., McNatt, Z., Tatek, D., Lindfield, T., & Bradley, E. H. (2013). Development of a brief instrument for assessing healthcare employee satisfaction in a low-income setting. *PLoS One*, 8(11):e79053.
Chang, E., Cohen, J., Koethe, B., Smith, K., & Bir, A. (2017). Measuring job satisfaction among healthcare staff in the United States: a confirmatory factor analysis of the Satisfaction of Employees in Health Care (SEHC) survey. *International Journal of Quality in Health Care*, 29, 262-268.

Team Development Measure

Measure of team functioning

Subscales: Communication, Roles & Goals Clarity, Cohesion, Team Primacy

Stock, R., Mahoney, E., & Carney, P. A. (2013). Measuring team development in clinical care settings. *Family Medicine*, 45, 691-700.

Relational Coordination Scale

Sample items: shared goals, mutual respect, timeliness of communication

Gittell, J. H., Seidner, R., & Wimbush, J. (2010). A relational model of how high-performance work systems work. *Organization Science*, 21, 490-506.

Medical Home Care Coordination Survey

Patient version subscales: plan of care, communication, link to community resources, care transitions

Healthcare team version subscales: accountability, IT capacity, plan of care, follow-up plan of care, self-management, communication, link to community resources, care transitions

Zlateva, I., Anderson, D., Coman, E., Khatri, K., Tian, T., & Fifield, J. (2015). Development and validation of the Medical Home Care Coordination survey for assessing care coordination in the primary care setting from the patient and provider perspectives. *BMC Health Services Research*, 15: 226.

Behavioral Health Professionals' Readiness for Integrated Primary Care

Readiness for integrated primary care among behavioral health professionals

12 items, 2 subscales: consultation/practice management and intervention/knowledge

Blaney, C. L., Redding, C. A., Paiva, A. L., Rossi, J., Prochaska, J. O., Blissmer, B., ... & Bayley, K. D. (2018). Integrated primary care readiness and behaviors scale: Development and validation in behavioral health professionals. *Families, Systems, & Health*, 36, 97-107.

Practice Integration Profile

Degree of behavioral health integration

30 items, scale: Never (0%), Sometimes (1-33%), Often (34-66%), Frequently (67-99%), Always (100%)

6 domains:

Practice workflow

Clinical services

Workspace arrangement & infrastructure

Integration methods (shared care)

Case identification

Patient engagement

Example items: *In our practice,*

we use registry tracking for patients with identified BH issues
we have clinicians available on site who provided non-crisis focused BH services

patient treatment/care plans are routinely documented in a medical record accessible to both BH and medical clinicians
BH and medical clinicians regularly spend time together collaborating on patient care

all patients are screened at least annually for lifestyle or behavioral risk factors

we have follow-up plans for all patients who complete BH interventions

Macchi, C. R., Kessler, R., Auxier, A., Hitt, J. R., Mullin, D., van Eeghen, C., & Littenberg, B. (2016). The Practice Integration Profile: Rationale, development, method, and research. *Families, Systems, & Health*, 34, 334-341.

Kessler, R. S., Auxier, A., Hitt, J. R., Macchi, C. R., Mullin, D., van Eeghen, C., & Littenberg, B. (2016). Development and validation of a measure of primary care behavioral health integration. *Families, Systems, & Health*, 34, 342-356.

Examples of provider-level process outcomes

- Number of referrals to program
 - Consults submitted in EMR
 - Procedure codes for initial visits (new patients) in EMR
 - Tracking log kept by coordinator
- Number of interventions delivered
 - Procedure or billing code in EMR
 - Click box in note template
 - Chart review for text in notes
 - Count of total per week/month/quarter
- Barriers & facilitators to adopting IPC or delivering intervention
 - BHC Readiness for IPC (Blaney et al., 2018)
 - Interviews, focus group, anonymous survey/feedback

Impact on healthcare costs/billing

- BHC
 - Calculate total charges accounted for by BHC care (compared to cost of BHC)
 - Calculate (potential) bonuses in bundle payment if BHC assists in reaching additional PCMH metrics
 - Combine with qualitative or quantitative evidence of additional non-revenue benefits (e.g., patient and PCP satisfaction)
 - Greater PCP satisfaction → Less turnover in PCPs → Less costs for hiring/training PCPs
- Medical
 - Compare PCP billing/productivity (# of patients seen per day) on days when BHC is vs. is not working
 - For patients who are high utilizers of medical care: compare total annual cost of healthcare (or # of PC/MH/ED visits) with vs. without integrated care
 - Compare rates of high-cost care (e.g., ambulance use, inpatient hospitalization) between clinics that do and do not have IPC

Demonstrating Value Beyond Standard Fee-for-Service Revenue

- Ask PCPs how IBHC could make their lives easier
 - Greater access for warm hand-offs
 - New group for a common problem (e.g., diabetes management, HTN)
 - Shared medical visits for behavioral health concerns
 - Monthly consultation case conference for challenging cases
 - Identify patients who may benefit from IBHC in daily huddles
- Show administration how IBHC could improve important PCMH metrics
 - Access to care, continuity of care
 - Diabetic control
 - Universal screening measures
 - AIMS screening for patients on anti-psychotic meds
 - Antidepressant medication management
 - Follow-up care for children prescribed ADHD medication

Sources of Measures: Measure Repositories

Patient-Reported Outcomes Measurement Information System (PROMIS)

- Person-centered measures of physical, mental, and social health in adults and children
- Strong psychometric properties
- Available in many languages
- For general population & those with chronic conditions
- Search by age, category, domain, type, language, etc.
- <http://www.healthmeasures.net/explore-measurement-systems/promis>

AHRQ Integration Academy IBHC Measure Atlas

- Integrates with the Academy Lexicon & Playbook
- Includes 9 core measures and 8 additional measures
- Search by name, functional domain, or goal with “Guide Me to a Measure” search
- <https://integrationacademy.ahrq.gov/products/ibhc-measures-atlas>

AHRQ Team-Based Primary Care Measures Database

- Includes 48 team measures
- Search by construct, setting, respondent type, etc.
- <https://primarycaremeasures.ahrq.gov/team-based-care//search>

AHRQ Clinical-Community Relationships Measures Database

- Includes 22 measures
- Search by assessment area or measure type
- <https://primarycaremeasures.ahrq.gov/clinical-community/>

AHRQ Care Coordination Measures Database

- Includes 100 measures
- Search by numerous filters
- <https://primarycaremeasures.ahrq.gov/care-coordination/Search>

Grid-Enabled Measures (GEM)

<https://www.gem-measures.org/Public/Home.aspx>

QI for Collaborative Care

www.qi4cc.com

RAND Online Measure Repository

<https://www.rand.org/nsrd/ndri/centers/frp/innovative-practices/measure.html>

Science of Behavior Change Repository

<https://scienceofbehaviorchange.org/>

Reviews/Repositories of Dissemination & Implementation Science Outcome Measures

Chaudoir SR, et al. (2011). Dissemination and implementation measurement compendium: A systematic review of structural, organization, provider, patient, and innovation level measures.

- Includes brief description, citation, and measure itself
- <https://chipcontent.chip.uconn.edu/wp-content/uploads/2015/09/DI-Measurement-Compendium.pdf>

Rabin BA, et al. (2016). Measurement resources for dissemination and implementation research in health. *Implementation Science*, 11:42.

- Reviews 17 D&I measure resources
- <https://implementationscience.biomedcentral.com/articles/10.1186/s13012-016-0401-y>

Society of Implementation Research Collaboration (SIRC) instrument review project

- Systematic review of D&I measures with assessment of psychometric properties and pragmatic qualities
- <https://societyforimplementationresearchcollaboration.org/sirc-instrument-project/>
- Database accessible to SIRC members only, but initial results available in article

Lewis et al. (2015). Outcomes for implementation science: an enhanced systematic review of instruments using evidence-based criteria. *Implementation Science*, 10:155.

- <https://implementationscience.biomedcentral.com/articles/10.1186/s13012-015-0342-x>
- Additional file 3: implementation outcome rating scores
- Additional file 4: construct head-to-head ratings comparison graphs