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Moving from Science to Implementation in Obesity

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IMPLEMENTATION SCIENCE: STRATEGIES

“the scientific study of methods to promote the systematic update of research findings and other evidence-based practices into routine practice and therefore improve the quality and effectiveness of health services.”

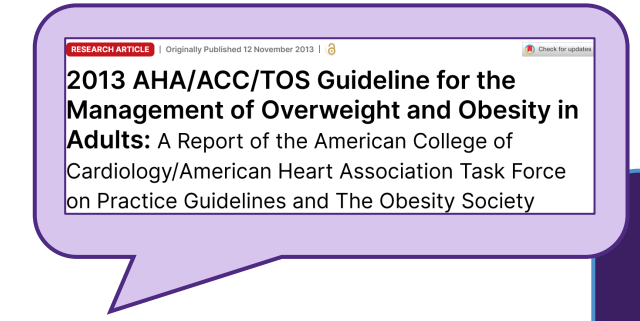
Why Prioritize Implementation in Clinical Care?

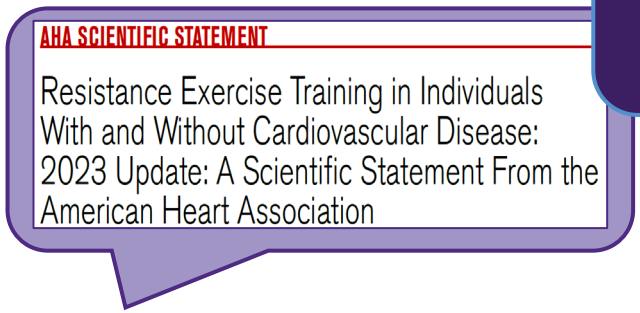
Physical activity is essential but often underutilized in obesity care

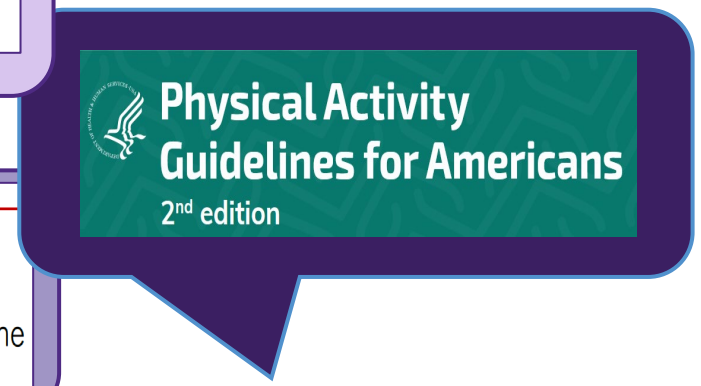
- Guidelines recommend ≥150 min/week of moderate-intensity activity
- Individuals with obesity may benefit from more-- at least 225 min/week

Consequently, Physical Activity uptake is low

- Less than 20% of adults with obesity meet aerobic activity recommendations
- Fewer than 15% meet both aerobic and resistance training recommendations



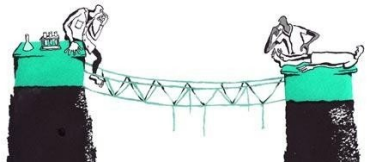




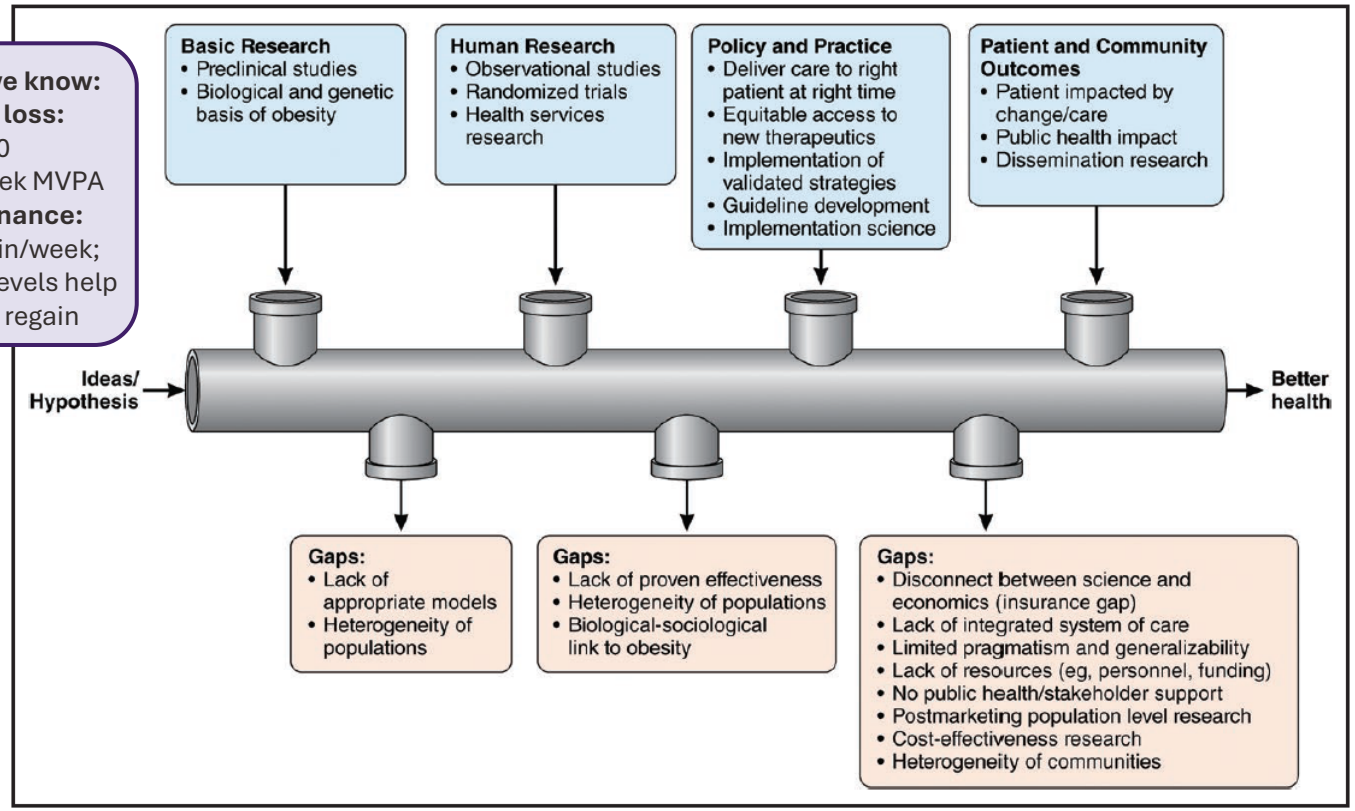
Gap Between Guidelines and Practice

PA is widely endorsed in clinical guidelines; yet it is rarely implemented systematically in routine care

We know what works—what's missing is how to deliver it effectively and equitably

Implementation Gap: Where Science  Stops Short

What we know:
Weight loss: 225–420 min/week MVPA
Maintenance: ≥150 min/week; higher levels help prevent regain



Does the intervention work? **?** *• is it being delivered as planned?' • is it supported by training systems to inform broader policy or practice?'*

<u>Physical Activity Implementation Gaps:</u>
Most RCTs are efficacy-based, not designed for real-world care

- ~3% of physical activity interventions are scaled up and implemented in clinical practice or community settings

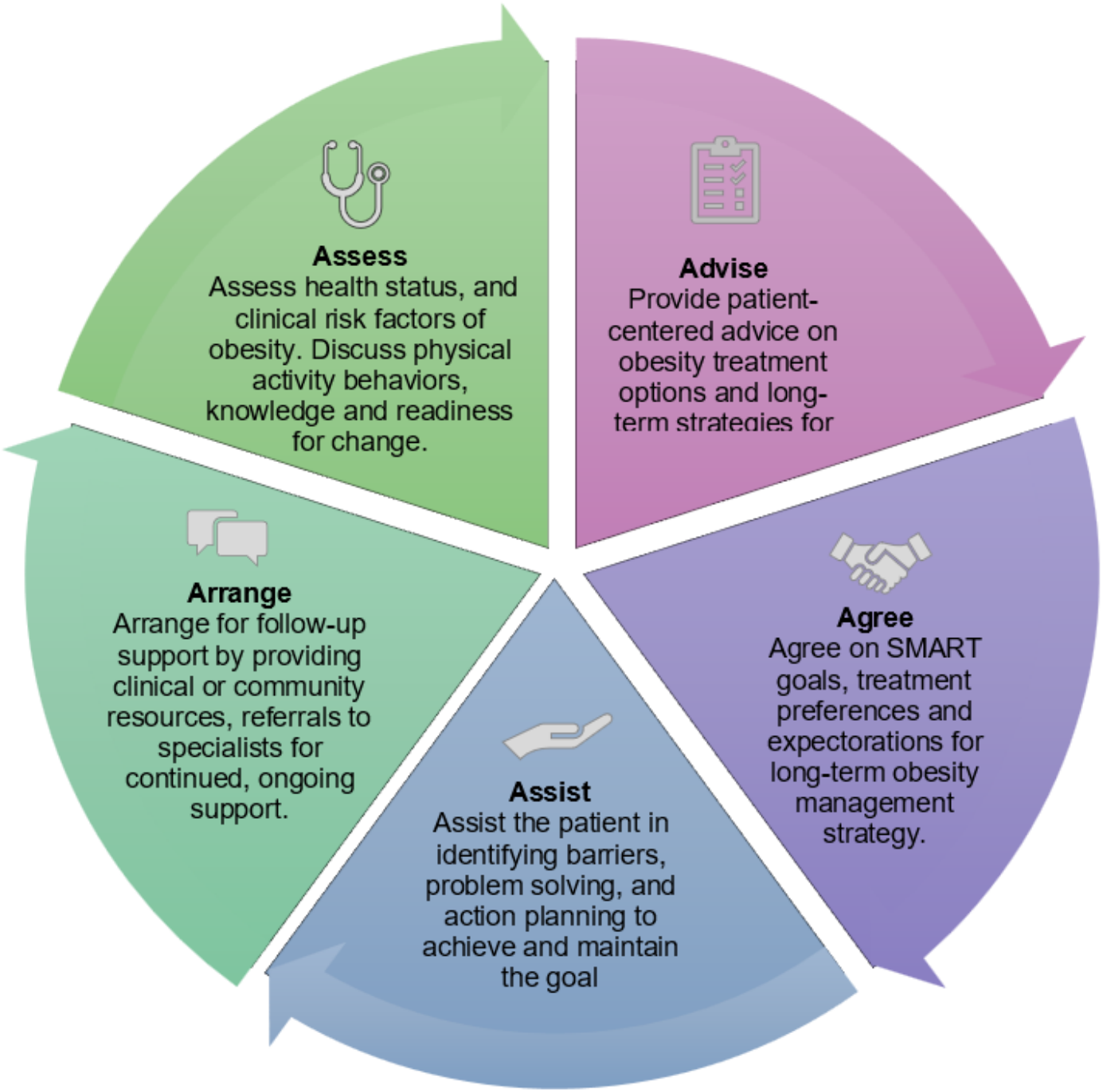
Efficacy trials—most often—don't translate into real-world practice

Embedding Physical Activity into the Care Pathway: 5A framework

Implementation begins with Integration

Treat Physical Activity as a vital sign

- Normalize PA conversations during routine visits
- Use patient-centered language focused on health benefits beyond weight; i.e., function, energy, and blood pressure



Kris-Etherton et al. *Circulation*. 2021;144:e495–e514 Laddu et al. Circulation. 2021;144:00–00.

A Framework: The 5 A's for PA in Obesity Care

Table 1. 5As and Best Communication Practices for Clinicians to Provide Patient-Centered Care for Healthy Lifestyle Change at Every Visit

5As*	Clinician action/aim*	Clinician communication skills†	Patient-centered care‡
Assess	To seek to understand what patient knows about a lifestyle behavior(s), why it matters to their health, and their intention to change their behavior	OARS approach O: Open-ended question A: Affirm what patient says R: Reflect what patient says S: Summarize	Support for patient autonomy by building on what they know and what they would like to change
Advise	To discuss health risks and benefits of behavior change, including offering information that corrects patient's misunderstanding and gaps in knowledge without being judgmental or confrontational	Ask-Tell-Ask: Ask patient for permission to offer more information Give clear, specific, personalized (or general) advice to change Determine what the patient wishes to do based on information discussed	Support for patient autonomy and relatedness by engaging them in a discussion of personalized recommendations for behavior change
Agree	To collaboratively set SMART goals§ for behavior change	Shared decision-making: Discuss with patient and agree on goals that are specific, measurable, achievable, realistic, and timed	Support for patient competence and relatedness by accounting for their preference and confidence
Assist	To encourage patient-selected solutions and action steps for addressing personal barriers to behavior change	5-step problem-solving counseling: Identifying personal barriers Brainstorm solutions Analyze pros and cons of the solutions (cost-benefit analysis) Choose the desired solution Develop an action plan	Support for autonomy, competence, and relatedness through solutions and motivation-focused problem solving and action planning
Arrange	To specify the next step (visit, call, reminder) to follow up on progress, provide referrals and access to resources based on patient preference	Tell-back/Teach-back: Ask patient to summarize their understanding of the next steps to ensure common understanding and enhance patient recall and accountability	Support for competence and relatedness through frequent follow-up to closely monitor patient's progress and support gradual steps toward their goal

Implementation begins with Integration

Treat PA as a vital sign

- Normalize PA conversations during routine visits
- Use patient-centered language focused on health benefits beyond weight; i.e., function, energy, and blood pressure

- The 5A process can be iterative, and ongoing assessments of PA are vital, even if a patient does not show initial interest.
- Regular patient-centered discussions help patients and clinicians understand challenges, readiness, progress, problem-solving, and goals to support obesity treatment

Kris-Etherton et al. *Circulation*. 2021;144:e495–e514 Laddu et al. Circulation. 2021;144:00–00.

Example: **Patient/Client:** "*I know I should be more active, but it's hard to find the time. I used to enjoy going for walks in the park [or going to the gym], but now with my new job, I'm just too tired by the end of the day.*"

Assess

- **Open ended question**: "*What do you think if we talk for a couple minutes about your physical activity habits? "*
- **Affirm**: "It sounds like being active is something you value, especially when it's enjoyable like walking in the park." **-OR-** "*You've managed a big life transition with your new job—that takes a lot of effort."*
- **Reflect**: *It seems like you're feeling a bit stuck between wanting to be active and feeling too tired to get started.*

Advise

Ask: *"It sounds like you're interested in being more physically active. Would it be okay if I share a few strategies that have helped others get started?"*
Tell: *"For example, some people break activity into shorter sessions—like three 10-minute walks instead of a single 30-minute one. Others combine movement with things they enjoy, like walking meetings, active family time, or finding a buddy to try a new class."*
Ask: *"How do you think something like that could work in your routine?"*

Agree

"What do you think about setting a goal to take a 10- to 20-minute walk during your lunch break each weekday? Does that feel manageable for you right now?"

Assist

- *"It's great that you're planning to walk after work. Life can be unpredictable — if a day gets away from you, maybe we can try a short walk during lunch or on the weekend?"* ***–OR—***
- *"Let's talk through that. What time of day do you typically feel the most energy? Some people find it easier to exercise in the morning or even during lunch. Also, we could think about alternatives if getting to the gym consistently feels too hard right now. For example, would doing a 20-minute home workout with bands or bodyweight exercises feel more realistic on those days? We can come up with a few backup plans together, so you don't feel like you're off track when life gets busy*

Arrange

- *It looks like your follow-up visit is on [date]. Between now and then, would you track your walks on your calendar or phone? That way we can review together how it's going."*
"Just to make sure we're on the same page, can you tell me what your plan is between now and our next visit?"

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Assessment of Physical Activity in Clinical Settings

- ✓ Routine PA assessment is feasible in clinical settings, offering reliable and valid, clinical information about health status.
- ✓ Tools like the Physical Activity Vital Sign (PAVS) and Exercise Vital Sign (EVS) offer efficient screening of physical inactivity and are needed as part of standard of care.
- ✓ Strengthening activity assessment instruments require further development and validation.

AHA SCIENTIFIC STATEMENT

Routine Assessment and Promotion of Physical Activity in Healthcare Settings

A Scientific Statement From the American Heart Association ngs

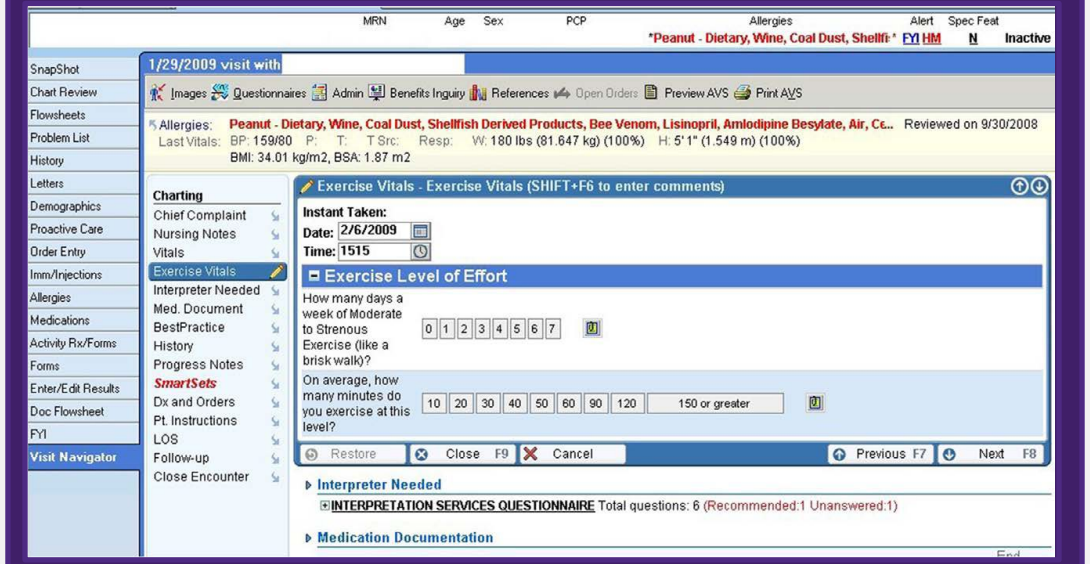
PA Questionnaire	Description	Target Age Group	Concurrent Criterion Validity	Can Assess Compliance With PAG Aerobic Component	Can Assess Compliance With PAG Muscle-Strength Component	Test-Retest Reliability	Clinical Feasibility	Average Score
Rapid Assessment of Physical Activity[138,139]	A 9-item questionnaire with the response options of yes or no to questions covering the range of levels of PA from sedentary to regular vigorous PA, as well as strength training and flexibility	Older adults	2.7	3	2	2.5	2.8	2.6
Single question (Milton et al[135,140])	"In the past week/past month, on how many days have you done a total of 30 minutes or more of physical activity, which was enough to raise your breathing rate? This may include sport, exercise, and brisk walking or cycling for recreation or to get to and from places, but should not include housework or physical activity that may be part of your job."	Adults	2.0	3	1	2.8	2.8	2.4
PAVS (Greenwood et al[41])	2 Questions: "How many days during the past week have you performed physical activity where your heart beats faster and your breathing is harder than normal for 30 minutes or more?" "How many days in a typical week do you perform activity such as this?"	Adults	2.2	3	1	NR	2.8	2.3
Kaiser Permanente Southern California EVS (Coleman et al[129])	2 Modified questions from BRFSS: "On average, how many days per week do you engage in moderate to strenuous exercise (like walking fast, running, jogging, dancing, swimming, biking, or other activities that cause a light or heavy sweat)?" "On average, how many minutes do you engage in exercise at this level?"	Adults	2.1	3	1	NR	2.8	2.2

Exercise Vital Sign Workflow Integration into Electronic Health Record

Exercise Vital Sign (EVS) asks 2 brief questions:

1. How many days a week do you engage in moderate to strenuous exercise (like a brisk walk)?"
2. "On average, how many minutes per day do you exercise at this level?"

Kaiser Permanente embedded the Exercise Vital Sign (EVS) into vitals workflow



- ✓ 14% more patients discussed PA with provider
- ✓ 14% increase in PA-related referrals and resources
- ✓ Significant improvement in weight loss compared to control centers

- •**Vitals Collection** (MA or Nurse) → blood pressure, heart rate, **+** EVS questions
- •**Automatic Calculation**
  → Weekly MVPA
  → Flag if < 150 min/week
- •**Display in Clinician Dashboard**
  → "Physical Activity" indicator in vitals section
  → Visual cue (e.g., red flag or progress bar)
- •**Trigger for Advising/Counseling**
  → Optional decision support:
- •Recommend walking group
- •Provide educational material
- •Refer to exercise professional

Lobelo et al. Circulation. 2018;137:e495–e522

Assist through Multidisciplinary Team Roles

Physician	Step Test Exercise Prescription Stages PEPAF trial, ACT
Nurse/Nurse practitioners	Green Prescription Program, PACE-UP
Physical Therapists	PA/exercise routinely integrated as part of standard of care
Fitness Professionals	DPP HEALD E-LITE

AHA SCIENTIFIC STATEMENT

Health Behavior Change Programs in Primary Care and Community Practices for Cardiovascular Disease Prevention and Risk Factor Management Among Midlife and Older Adults

Promoting PA isn't the clinician's job alone — it requires the full care team.

- Physicians, nurse/nurse practitioners, physical therapists, and fitness professionals each contribute unique expertise.
- Primary care–based physical activity promotion programs improve weight, and blood pressure outcomes.
- Team-based models reduce burden on providers and enhance patient outcomes.

ACT: Activity Counseling Trial ; DPP, Diabetes prevention program; HEALD: Health Eating and Active Living for Diabetes; PACE-UP, Pedometer and Consultation Evaluation; PEPAF, Experimental Program for Physical Activity Promotion;

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Arrange Referral Pathways & Build Community Linkages

Agency for Healthcare Research and Quality

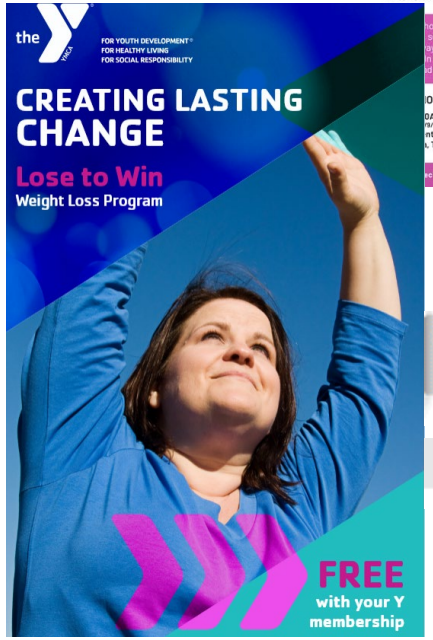
Community Connections: Linking Primary Care Patients to Local Resources for Better Management of Obesity

- Bridge clinical care with trusted community-based physical activity programs
- Support behavior change with coordinated follow-up and tailored referrals
- Prioritize inclusive, accessible programs—especially for individuals with obesity
- Leverage tools like the AHRQ Community Linkages Toolkit to guide implementation
- Address system-level barriers such as reimbursement and siloed practice

Referral pathways with community-based physical activity programs extend the reach of care, amplify impact and likelihood of long-term behavior change.

Real-World Implementation Examples

Program	Setting	5A model constructs	Outcome	Implementation Strategy	Notes
Exercise is Medicine	Health systems	Full 5A	↑ PA, ↑ clinician engagement	EHR integration, community referral	Henry Ford Health System (PREVENT, ExCITE programs) and Kaiser Permanente have both embedded EIM workflows into clinical systems.
VA MOVE!	Veteran Affairs clinics	Full 5A	↑ PA, ↓ stress	Referral by PCP; Multidisciplinary team care	**Locations offered in Illinois,**
Y Health Program	Nationally	Assist, Arrange	↑ PA, ↑ equity	Primary care physician or EHR integration,	**Blue Cross and Blue Shield of North Carolina** Physician referral form **Seattle/Washington:** Lose to Win Weight-Loss Program Brochure
Active Living Every Day	Community workshops	Assist, Arrange	↑ PA, ↑ adherence	Clinician referral, behavior change coaching, trainer-workshops	**San Antonio, TX; St. Louis, MO; and Pittsburgh, PA** via Oasis Institute partnerships *supported by the Robert J. Wood Foundation-funded Active for Life initiative, National Council on Agine, and as part of NIH and CDC-funded studies



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Walk with a Doc

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https://walkwithadoc.org/who-we-are/our-mission/

Barriers & Solutions to PA Referral and Reimbursement

BARRIER

- ⊘ Clinician reluctance to refer patients outside the health system
- ⊘ Limited reimbursement for PA counseling (Z-codes not billable standalone)
- ⊘ EHR documentation burden
- ⊘ Counseling reimbursed only under strict criteria); low-intensity counselling with high metrics for continued cared; limited community program reimbursement
- ⊘ Fragmented care models and minimal support for social health integration

PROMISING SOLUTION

- ✓ Build trusted, certified referral networks (e.g., Exercise is Medicine®)
- ✓ Use of “bill for time” strategies (e.g., E&M code 99214 with other qualifying diagnoses (e.g, obesity)
- ✓ Streamline with templates, decision support tools, and integration into vital signs workflow
- ✓ Leverage value-based care and ACO models to support team-based PA interventions
- ✓ Advocate for inclusion of PA counseling in quality metrics (e.g., HEDIS measures)

Final Thoughts: Shift from '*Knowing*' to '*Doing*'

- We already know what works. Now it's time to embed it into workflows, conversations, and community connections.
- Together, we can shift from treating obesity ***reactively*** to supporting health ***proactively***—with physical activity at the core.
- Effective implementation rests on better aligning science, clinical care, and lived experience

What's one way you can support PA in your setting tomorrow

Thank you

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Question prompt

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