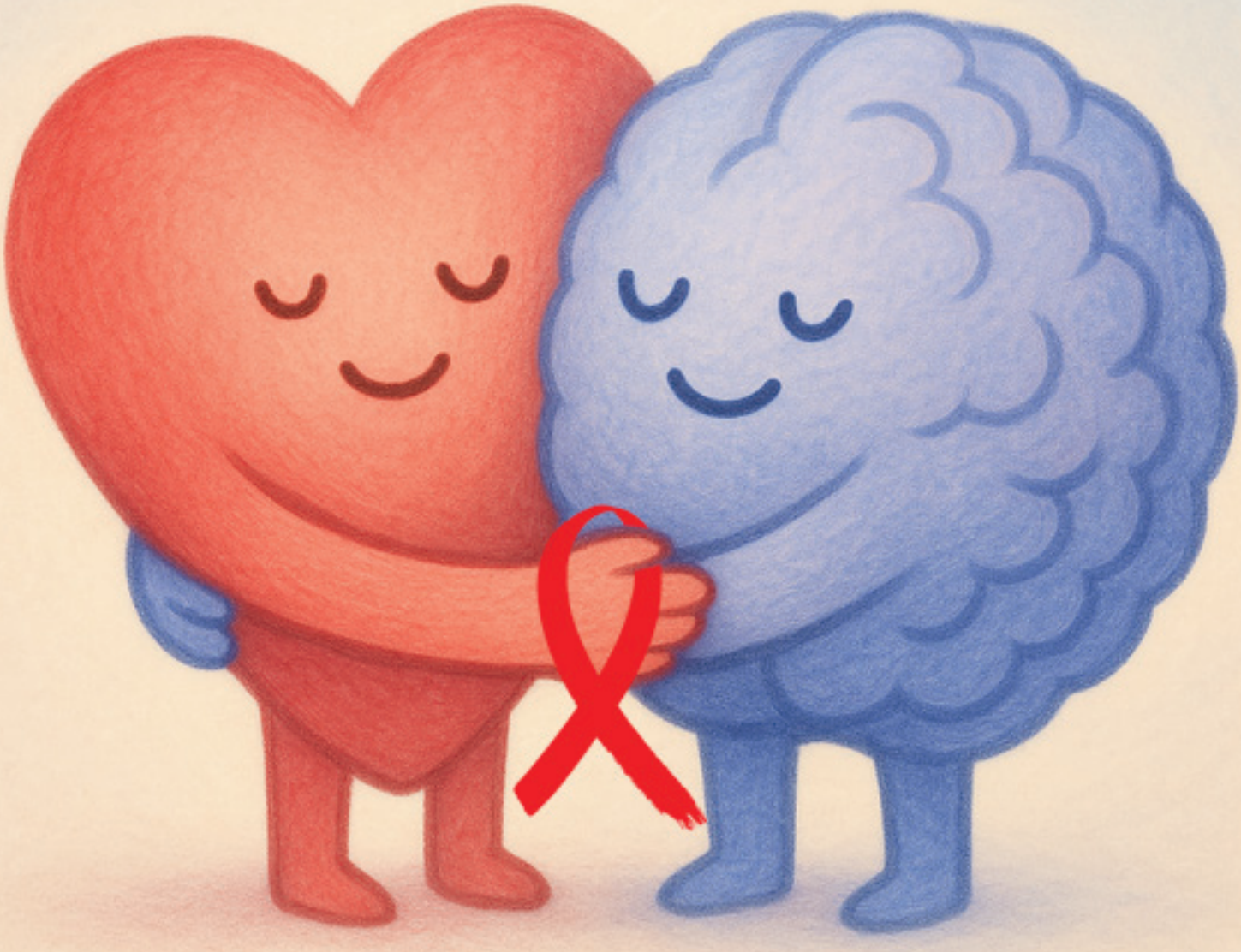
The Heart and Brain Health Toolkit

A Toolkit for People Aging with HIV and their Providers



Quality of Care Program, AIDS Institute,
New York State Department of Health

NEW YORK STATE | Department of Health

Table of Contents

1 Introduction 3

2 Quality Improvement Framework 6

3 Heart and Brain Health Guidelines 8

4 Potential Improvement Project Focus Areas with Suggested Measures 13

5 Quality Improvement Tools 21

6 Heart and Brain Health Resources 28

7 References 32

1 Introduction



The AIDS Institute Quality Advisory and Consumer Advisory Committees along with Quality of Care Program staff have created this quality improvement toolkit to support the development and implementation of quality improvement projects aimed at improving both heart and brain health for people aging with HIV.



As people age with HIV, chronic health concerns may need additional attention. Some of these are related to heart and brain health.



Since data suggest there is an interrelationship between heart and brain health, working to improve one may have a positive impact on the other.



For the reasons stated above, we decided to focus on both heart and brain health in this toolkit to encourage providers and consumers to work together to develop a single quality improvement project to address heart and brain health among people aging with HIV and measure its impact.

Disclaimer: This toolkit provides projects that may or may not be funded and is not related to any funding organizations, please check with funding organization regarding any funding requirements. Certain interventions may require you to seek other sources of funding.

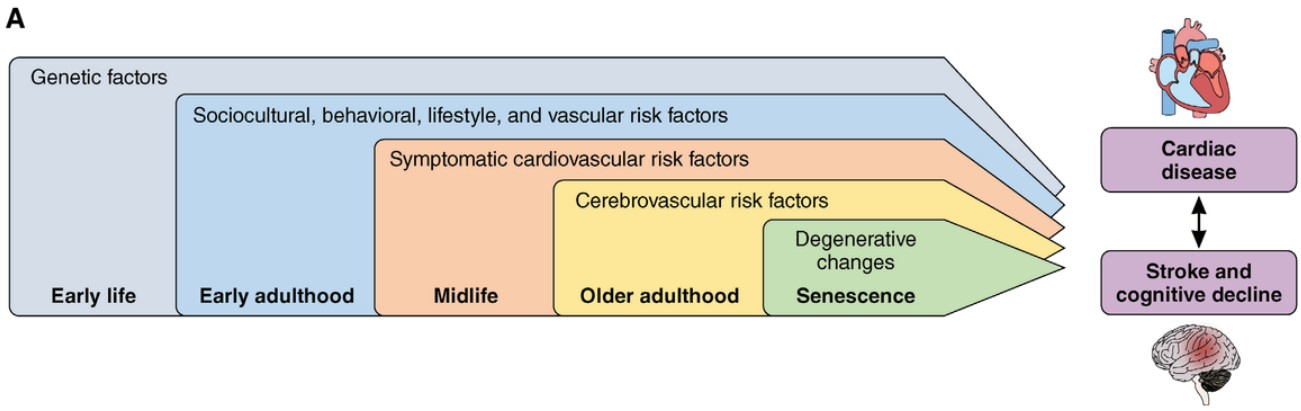
Background

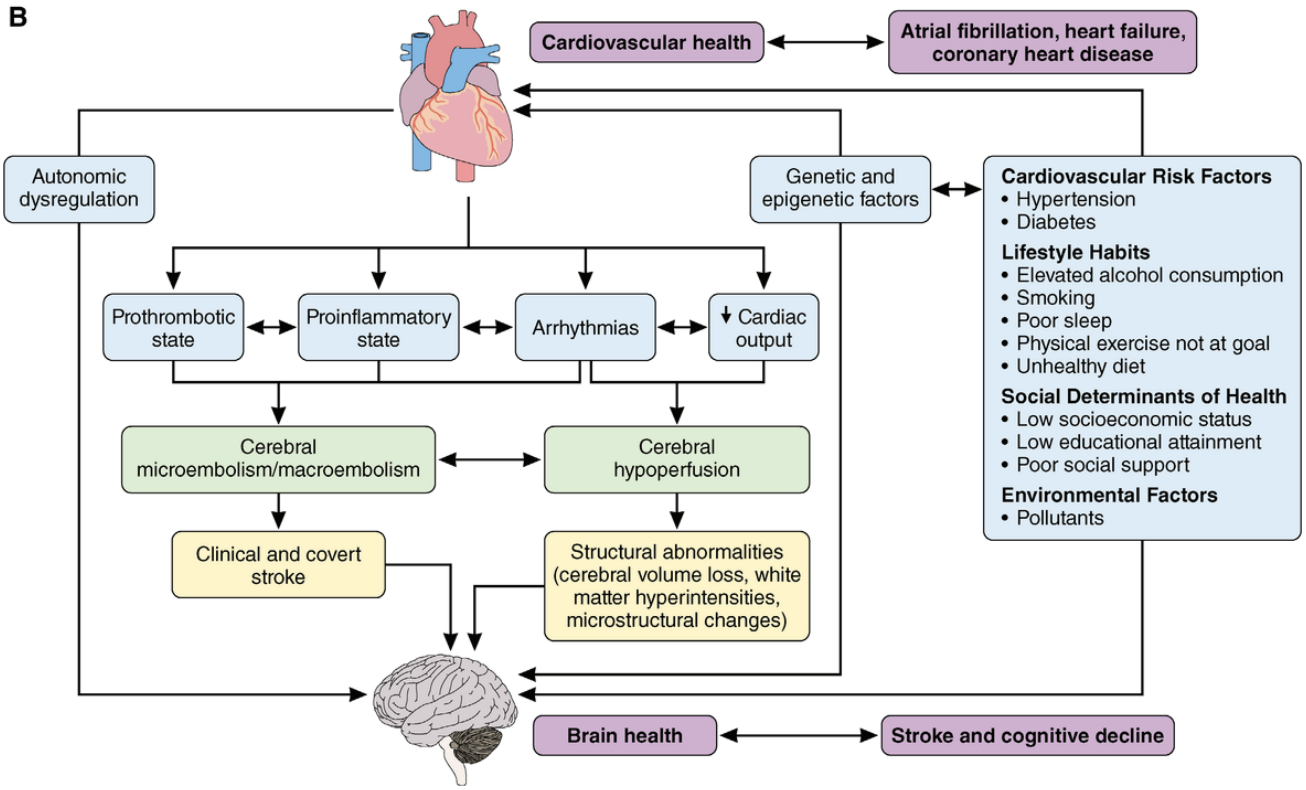
These include higher rates of cognitive decline, depression, and age-related symptoms, such as frailty.[1] Research has shown people aging with HIV have more comorbidities, arising at an earlier age than people aging without HIV.[2]

Research also shows that heart disease arises earlier and progresses faster in people aging with HIV and suggests that comorbidities are likely to affect brain health.[3]

These health outcomes are being examined together because lifestyle changes, such as healthy eating habits and exercise, can improve both heart and brain health. Additionally, vascular disease impairs both heart and brain health.[4]

Progression of Disease Across the Lifetime Continuum and Shared Risks and Mechanistic Factors





Purpose

The purpose of this toolkit is to offer consumers and providers resources, tools, and information to improve the heart and brain health of people aging with HIV (those 50 years or older living with HIV) through the use of quality improvement approaches to measure and evaluate interventions.

The toolkit includes links to guidelines, standards of care and recommendations relating to heart and brain health, as well as examples of quality improvement activities that can be implemented to evaluate the quality of services provided to people with HIV.

[4] *Graphic taken from: Testai FD 4 , Gorelick PB, Chuang P-Y, et al. Cardiac contributions to brain health: A scientific statement from the American Heart Association. Stroke. 2024;55(12). doi:10.1161/STR.0000000000000476*

2

Quality Improvement Checklist for Improving Heart and Brain Health

Section A: *What are we trying to improve?*

The following heart and brain health quality improvement checklist has been developed to assist you in ensuring your team has all it needs to successfully test and implement quality improvement activities. So that all quality improvement team members have a common understanding of what we are trying to improve, it is recommended that staff and consumers involved in the project receive some training on the relationship between heart and brain health in the context of HIV care.

	Are staff trained in:	**Yes**	**No**
1.	**Quality Improvement**	☐	☐
2.	**Heart and Brain Health of those aging with HIV**	☐	☐
	Measurement of Quality Improvement Knowledge:		
1.	**Do all staff members have access to tools and resources needed to perform quality improvement activities?**	☐	☐
2.	**Do staff members have access to tools and resources to support patient heart and brain health?**	☐	☐
3.	**Do staff members have access to appropriate space and time needed to conduct heart and brain health improvement activities?**	☐	☐
4.	**Are you including the entire provider team such as: care management, nursing, people with lived experience, peer workers, etc.?**	☐	☐
5.	**Use of quality tools, such as an aim statement, improvement memo and quality improvement plan, to clearly describe improvement goals** (numeric and time-bound)?	☐	☐
	Measurement of Heart and Brain Health Knowledge		
1.	**Do you have baseline data on heart and brain health of your patients?** (If not, public health data can serve as a bass for action)	☐	☐
2.	**Have you measured patient experience of heart and brain health issues?** (If not, the use of surveys, focus groups, and exit interviews can help get an understandng of the patient perspective.)	☐	☐
3.	**Does your team measure heart and brain health knowledge of staff?**	☐	☐
4.	**Do you provide education on the impact of HIV on heart and brain health to staff?**	☐	☐

Section B: *How will we know if there is a change and if the change is an improvement?*

	Yes	No
1. **Develop a measure for heart health**	☐	☐
2. **Develop a measure for brain health**	☐	☐
3. **Develop a plan for measuring the impact of your improvement project on heart and brain health** (what, when, how frequently and who will you measure, who will analyze the results of measurement, who will offer input on changes to make based on results of measurement, who will make decisions on changes to be made based on results of measurement)	☐	☐
4. **Use of Plan-Do-Study-Act cycles to test changes on a small scale**	☐	☐
5. **Use of quality tools such as run charts or control charts to display and analyze data outcome changes over time**	☐	☐

Section C: *What changes can we make that will lead to an improvement?*

	Yes	No
1. **Review the data to assess needs among specific patient groups**	☐	☐
2. **Review current processes or lack of processes to address heart and brain health to better support heart and brain health among people aging with HIV**	☐	☐
3. **Consider possible changes to processes to better support heart and brain health:** What changes will you make to the current process? Will you add steps, combine steps, eliminate steps? Have you considered what is known about the area you are trying to improve? How does the healthcare system, including health centers and health organizations, currently respond to heart and brain health? What changes could be made within the system/center/organizations? How can you ensure staff and consumer buy in to the process changes that will be needed to improve heart and brain health?	☐	☐
4. **Use quality improvement tools, such as driver diagram, fishbone analysis, system of profound knowledge diagram, to strategize improvement ideas**	☐	☐

3 HEART AND BRAIN HEALTH GUIDELINES

Guidelines Specific to Heart and Brain Health

[Guidance: Addressing the Needs of Older Patients in HIV Care](#)[1]



Key Sections include:

- Approach to Aging in HIV Care
- Geriatric Screening and Assessment
- Integrating the Needs of Older Patients Into Medical Care

For More Information on Specific Heart and Brain Health Recommendations

Guidelines Specific to Heart Health

For Recommendations on the Use of Statin Therapy as Primary Prevention of Atherosclerotic Cardiovascular Disease in People with HIV follow the link here.[6]

For Guidelines on Antiretroviral Use in Special Populations follow the link here.[7]

For Guidelines on the Use of Antiretroviral Agents in Adults and Adolescents with HIV follow the link here.[8]

For Guidelines on Selecting an Initial Antiretroviral Regimen with Special Considerations for Comorbid Conditions follow the link here.[9]

Guidelines Specific to Brain Health

For recommendations on Neurocognition and People Aging with HIV: Implications for Screening follow the link here.[10]

See 'Neurocognitive Impairment in the Older Person with HIV' section of the Guidelines for the Use of Antiretroviral Agents: Considerations for Special Populations which can be found here.[8]

For Consensus Recommendations on Cognitive Impairment in People Living with HIV follow thew link here.[11]

Table 1: Assessment Domains for Older People With HIV and Selected Tools and Resources

Area for Assessment	Tools and Resources
Functional Deficits and Geriatric Syndromes	
Basic activities of daily living (general)	Katz Index of Independence in Activities of Daily Living: bathing, dressing, toileting, grooming, transferring, and locomotion
Instrumental activities of daily living	The Lawton Instrumental Activities of Daily Living (IADL) Scale: telephone, transportation, housekeeping, medication management, financial management, and meal preparation
Continence	• National Association for Continence • Urinary incontinence in women: evaluation and management (Hu & Pierre, 2019) (provides links to 3 different brief screening tools)
Exercise prescription	• ACSM Exercise is Medicine® Health Care Providers' Action Guide • Evidence-informed practical recommendations for increasing physical activity among persons living with HIV (Montoya et al., 2019)
Frailty	CGA Toolkit Plus: Frailty
Mental Health	
Cognition	• MoCA Test (registration and training are required) • Alzheimer's Association Clinical Resources • Mini-Cog© Quick Screening for Early Dementia Detection
Social isolation, loneliness	• UCLA Loneliness Scale, 3-item Scale • UCLA Loneliness Scale 3-item scoring guide • Measuring loneliness: a head-to-head psychometric comparison of the 3- and 20-item UCLA Loneliness Scales • UCLA Loneliness 20-item scale and scoring guide Multiple screening tools and interventions are available through • Campaign to End Loneliness • UCSF Stress Measurement Network
Other areas (e.g., depression, anxiety, stigma)	• Patient Health Questionnaire-4 (PHQ-4): Ultra-Brief Screening for Anxiety and Depression • SAMHSA Growing Older: Providing Integrated Care for an Aging Population • WHO Ensuring quality health care by reducing HIV-related stigma and discrimination

Table taken from: Siegler E. Addressing the needs of older patients in HIV care. *New York State Department of Health AIDS Institute Clinical Guidelines Program.* Published May 5, 2023. Accessed July 2, 2025. hivguidelines.org/guideline/hiv-aging

Table 1: Assessment Domains for Older People With HIV and Selected Tools and Resources

Area for Assessment	Tools and Resources
Comorbidities and Medications	
Managing multiple chronic conditions	Decision making for older adults with multiple chronic conditions: executive summary for the American Geriatrics Society Guiding Principles on the Care of Older Adults with Multimorbidity (Boyd et al., 2019)
Primary care of specific comorbidities	NYSDOH AI guideline Primary Care for Adults With HIV
Antiretroviral therapy choices and Drug-Drug interactions	• AETC Northeast/Caribbean Mobile Apps • Deprescribing.org • DHHS Guidelines for the Use of Antiretroviral Agents in Adults and Adolescents with HIV > Drug-Drug Interactions • University of Liverpool HIV Drug Interactions Checker • NYSDOH AI Resource: ART Drug-Drug Interactions • NYSDOH AI guideline Selecting an Initial ART Regimen > ARV Dose Adjustments for Hepatic or Renal Impairment
Medication choices and polypharmacy	• STOPP/START criteria for potentially inappropriate prescribing in older people: version 2 (O'Mahony et al., 2015) • American Geriatrics Society 2019 Updated AGS Beers Criteria® for Potentially Inappropriate Medication Use in Older Adults (American Geriatrics Society, 2019)
Bone health	Management algorithms: • Updates on bone health in people living with HIV: global impact, prediction tools, and treatment [Lazcano, et al. 2025] • Diagnosis, prevention, and treatment of bone fragility in people living with HIV: a position statement from the Swiss Association against Osteoporosis (Biver et al., 2019) • Management of osteoporosis in patients living with HIV: a systematic review and meta-analysis (Startup-Linde et al., 2020)
Nutrition (food insecurity, obesity, undernutrition)	• HIV and antiretroviral therapy-related fat alterations (Koethe et al., 2020) • Food is medicine for human immunodeficiency virus: improved health and hospitalizations in the Changing Health Through Food Support (CHEFS-HIV) Pragmatic Randomized Trial [Palar, et al. 2025]

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Table 1: Assessment Domains for Older People With HIV and Selected Tools and Resources

Area for Assessment	Tools and Resources
Quality of Life	
Advance directives	NYSDOH: • Health Care Proxy: Appointing Your Health Care Agent in New York State (includes fillable form) • Medical Orders for Life-Sustaining Treatment (MOLST) and eMOLST registry
Caregiving (requiring and providing)	Next Step in Care Toolkits, Guides, and More for Health Care Providers
Elder mistreatment	• New York State Coalition on Elder Abuse • National Center on Elder Abuse > Elder Abuse Screening Tools for Healthcare Professionals
Quality of life, palliative care, pain management, prognosis, and end-of-life plans	• 2017 HIVMA of IDSA clinical practice guidelines for the management of chronic pain in patients living with HIV [Bruce, et al. 2017] • Advanced HIV disease and health-related suffering- exploring the unmet need of palliative care • Management of pain and other palliative needs in older people with HIV • Use of quality-of-life instruments for people living with HIV: a global systematic review and meta-analysis • Palliative care considerations for the older adults with HIV/AIDS: a clinical practice review [Tamsukhim, et al. 2024] • Prognostic tools: - VACS Index Calculator - UCSF ePrognosis Calculators - Prognostic indices for older adults: a systematic review (Yourman et al., 2012)
Sexual health and menopause	• NYSDOH AI GOALS Framework for Sexual History Taking • NYSDOH AI Guidance: Adopting a Patient-Centered Approach to Sexual Health • Clinical considerations for menopause and associated symptoms in women with HIV (Looby, 2023) • Menopause: an opportunity to optimize health and wellbeing for people with HIV [Tariq 2025]

Abbreviations: ACSM, American College of Sports Medicine; AGS, American Geriatrics Society; ART, antiretroviral therapy; ARV, antiretroviral medication; CDC, Centers for Disease Control and Prevention; CGA, Comprehensive Geriatric Assessment; GOALS, Give Offer Ask Listen Suggest; HIVMA, HIV Medicine Association; HRQOL, Health-Related Quality of Life; IDSA, Infectious Diseases Society of America; MoCA, Montreal Cognitive Assessment; NIH, National Institutes of Health; NYSDOH AI, New York State Department of Health AIDS Institute; SAMHSA, Substance Abuse and Mental Health Services Administration; UCSF, University of California San Francisco; VACS, Veterans Aging Cohort Study.

Table taken from: Siegler E. Addressing the needs of older patients in HIV care. *New York State Department of Health AIDS Institute Clinical Guidelines Program*. Published May 5, 2023. Accessed July 2, 2025. hivguidelines.org/guideline/hiv-aging

4 POTENTIAL IMPROVEMENT PROJECT FOCUS AREAS WITH SUGGESTED MEASURES

The following activities were jointly suggested by Clinical Quality Advisory Committee and Consumer Advisory Committee members. Quality of Care Program staff then developed indicators that could be used to measure each activity.

The activities are meant to improve both heart and brain health. Using the quality improvement checklist, test out for implementation with one of the following interventions. Indicators for each intervention are here provided along with suggested measures for each.

Standard heart and brain health indicators (such as blood pressure, heart rate, Modified ICOPE screening, etc.) can be used in conjunction with each potential improvement focus area.

1. Routinely perform mental health screens

Indicator: Mental Health Screens Measures:
- **Numerator:** number of clients screened for mental health
- **Denominator:** number of eligible clients

2. Using support groups, therapy groups, etc. to address isolation

Indicator: Loneliness Scale Measures:
- **Numerator:** all clients with improved or continued low-level loneliness
- **Denominator:** all clients involved in the activity

3. Prescribe Exercise

Indicator 1: Minutes Spent Exercising per Week

Measures:
- **Numerator:** all clients with increased engagement in exercise
- **Denominator:** all clients prescribed exercise

Indicator 2: Healthy Weight Achievement or Maintenance

Measures:
- **Numerator:** all clients involved in activity who achieve progress towards healthy weight goals
- **Denominator:** all clients involved in the exercise

4. Increase brain stimulation through book clubs, poetry groups, dinner clubs, social gatherings, storytelling groups, etc.

Indicator 1: Mental Health Screens

Measures:
- **Numerator:** all clients with improved mental health outcomes
- **Denominator:** all clients involved in the activity

Indicator 2: Blood Pressure

Measures:
- **Numerator:** all clients with improved or continued normal blood pressure
- **Denominator:** all clients involved in the activity clients involved in the exercise

5. Regular check in from person with lived experience, peer worker, or case managers to ensure medical concerns (including those that may be related to heart and brain health) that arise between medical visits are addressed

Indicator 1: Client Satisfaction

Measures:

- **Numerator:** all clients satisfied with treatment
- **Denominator:** all clients who receive regular check-in visits

Indicator 2: Engagement and Retention in Care

Measures:

- **Numerator:** all clients who maintain visits
- **Denominator:** all clients who receive regular check-in visits

6. Peer-led wellness checks and programming

Indicator 1: Memory Screens

Measures:

- **Numerator:** all clients with improved memory outcomes
- **Denominator:** all clients involved in the activity

Indicator 2: Blood Pressure

Measures:

- **Numerator:** all clients with improved or continued normal blood pressure
- **Denominator:** all clients linked to care

Indicator 3: Healthy Weight Achievement or Maintenance

Measures:

- **Numerator:** all clients involved in activity who achieve progress towards healthy weight goals
- **Denominator:** all clients linked to care

7. Other interventions such as medications

Indicator 1: Blood Pressure

Measures:

- **Numerator:** all clients with improved or continued normal blood pressure
- **Denominator:** all clients involved in the activity

Indicator 2: Healthy Weight Achievement or Maintenance

Measures:

- **Numerator:** all clients involved in activity who achieve progress towards healthy weight goals
- **Denominator:** all clients involved in the activity

8. Linkages to primary and specialty care, such as registered dietitian or other certified nutrition providers

Indicator 1: Linkages Made

Measures:

- **Numerator:** all clients who have improved memory screen results
- **Denominator:** all clients linked to care

Indicator 2: Healthy Weight Achievement or Maintenance

Measures:

- **Numerator:** all clients involved in activity who achieve progress towards healthy weight goals
- **Denominator:** all clients linked to care

9. Screen for Cognitive Impairment

Indicator 1: Cognitive Screens Completed

Measures:

- **Numerator:** all clients who completed a cognitive screen
- **Denominator:** all clients linked to care

Indicator 2: Positive Cognitive Screens

Measures:

- **Numerator:** all clients who had positive cognitive screens
- **Denominator:** all clients who received a cognitive screen

Indicator 3: Cognitive Linkages Made

Measures:

- **Numerator:** all clients with a cognitive linkage made
- **Denominator:** all clients who had positive cognitive screens

10. Use of people with lived experience and peer workers to facilitate heart and brain health activities

Indicator 1: Peer Trainers

Measures:

- **Numerator:** all clients who become trainers
- **Denominator:** all clients engaged in the activity

Indicator 2: Peer Education

Measures:

- **Numerator:** all clients who receive education
- **Denominator:** all clients linked to care

11. Use of resource lists for brain, nutrition, and heart activities

Indicator 1: Cognitive Screens Completed

Measures:

- **Numerator:** all clients who completed a cognitive screen
- **Denominator:** all clients linked to care

Indicator 2: Tool Utilization by Clients

Measures:

- **Numerator:** all clients using the tools
- **Denominator:** all clients receiving care at the clinic

Indicator 3: Linkages Made

Measures:

- **Numerator:** all clients who are linked to care
- **Denominator:** all clients using the tools

Indicator 4: Tool Utilization by Providers

Measures:

- **Numerator:** all providers using the tools
- **Denominator:** all providers working at the clinic

12. Use of brain stimulation exercises such as memory games or puzzles

Indicator 1: Loneliness Scores

Measures:

- **Numerator:** all clients with improved or maintained loneliness scores post-intervention.
- **Denominator:** all clients screened for loneliness pre-intervention

13. Use of social connections interventions such as group art therapy

Indicator 1: Loneliness Scores

Measures:

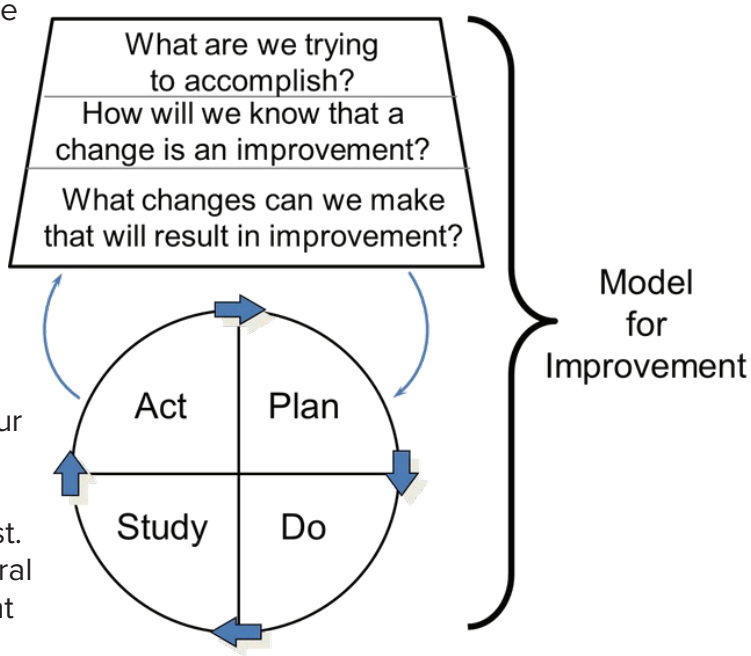
- **Numerator:** all clients with improved or maintained loneliness scores post-intervention.
- **Denominator:** all clients screened for loneliness pre-intervention

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5 QUALITY IMPROVEMENT TOOLS

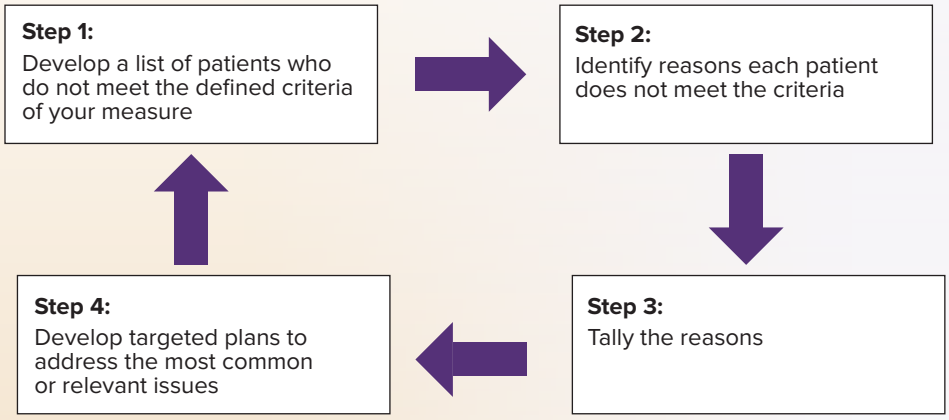
Model for Improvement

Description: The model for healthcare improvement is a streamlined, QI methodology that provides a simple and straightforward process for testing and improving health outcomes. The three questions relate to forming a measurable, quality goal, and considering what activities or process changes might help you to achieve that goal. Once the three questions are answered, move onto the PDSA cycle to plan your improvement, do the improvement (test), analyze the results of the test and adjust your activity to then retest. Going through the PDSA cycle several times will help to refine improvement processes and achieve your goals



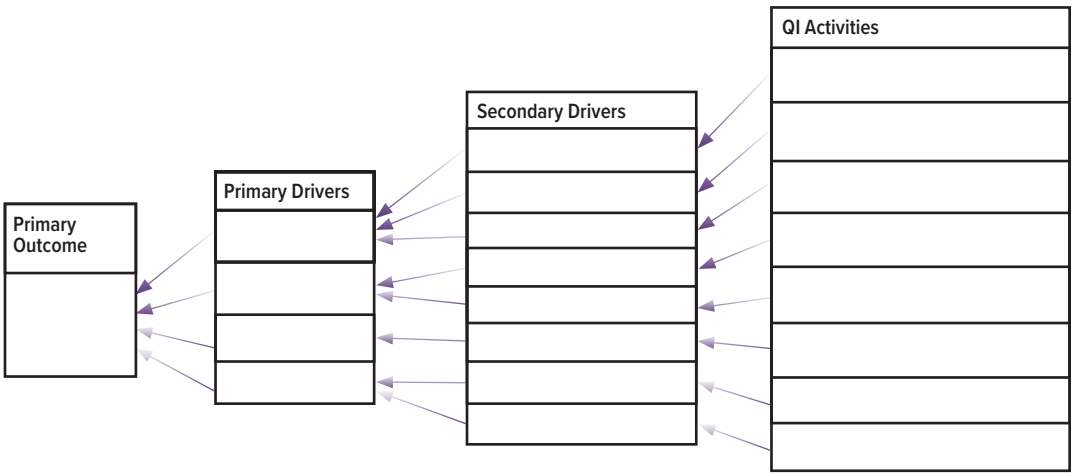
Data Drill Down

Description: Assess baseline heart and brain health data by using the drilling down data process which will help to discover underlying reasons for health outcomes in order to develop improvement activities to address identified issues.



quality.aidsinstituteny.org/Areas/QualImprove/Files/2019/d_20190315/3-15-19-3.b.%20QI%20Drilling%20Down%20Data%20Full%20PDF.pdf

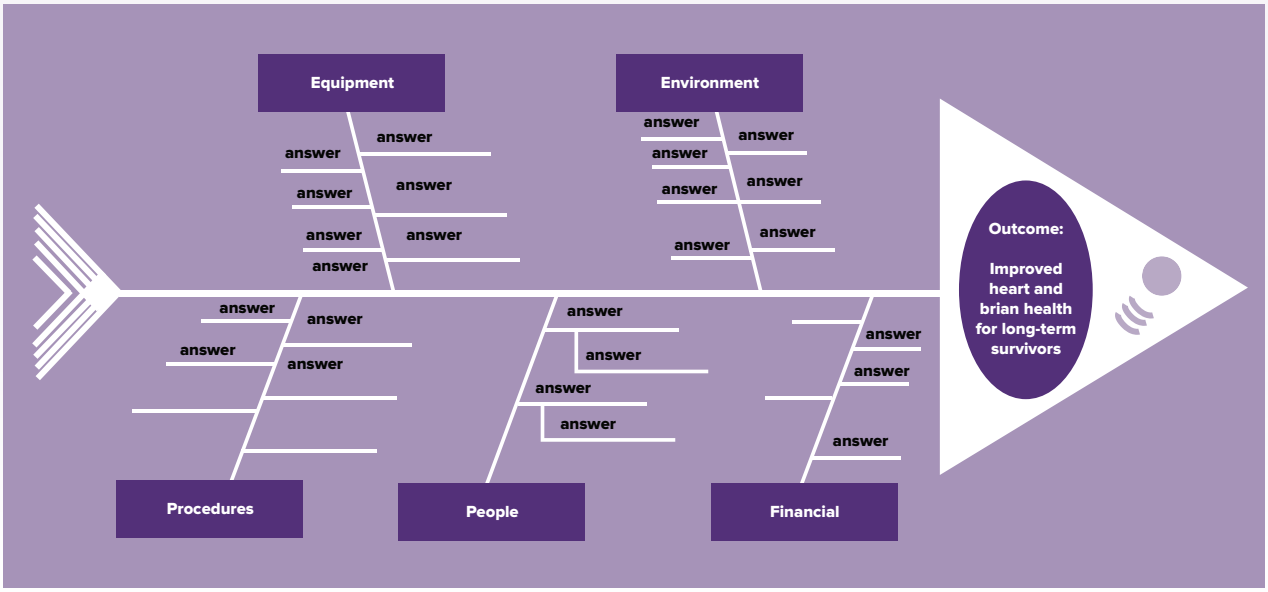
Driver Diagram



Description: A Driver Diagram is a strategic tool to help identify drivers of improvement. On the far left of the diagram is the primary outcome (what you would like to achieve) the next row are primary drivers which are the major areas driving outcomes. To the right are the secondary drivers, which are subsets of the primary drivers, focusing on the secondary drivers can help you to identify improvement activities. Addressing the secondary drivers which are small enough to develop process changes can help to push the primary drivers to reach your primary outcome.

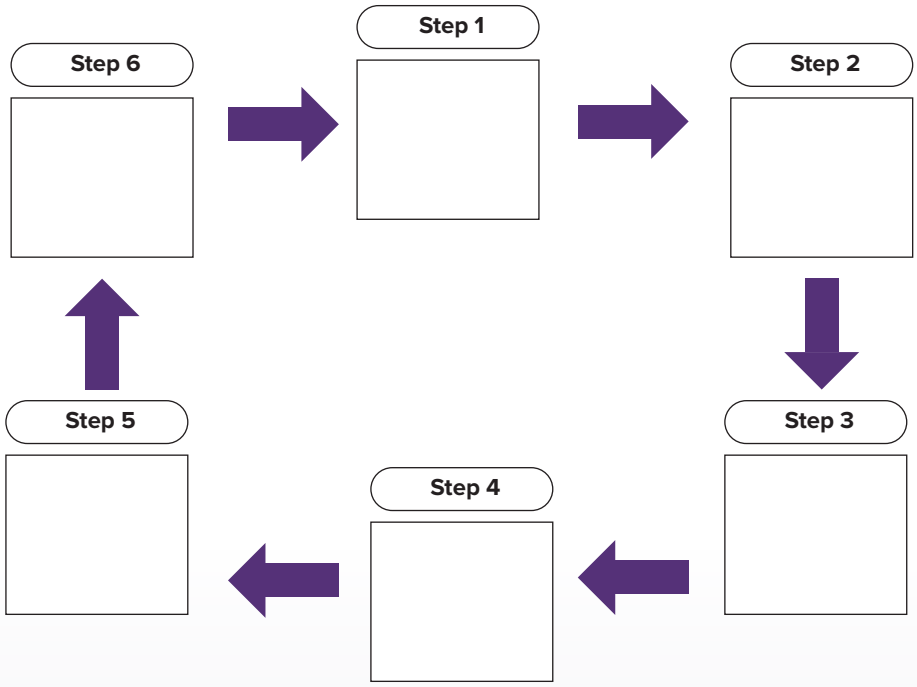
Fishbone Diagram

Description: The cause and effect or fishbone diagram can be used as a tool to identify multiple causes of an effect. This can help you to understand the complexity of an issue and identify areas for improvement.



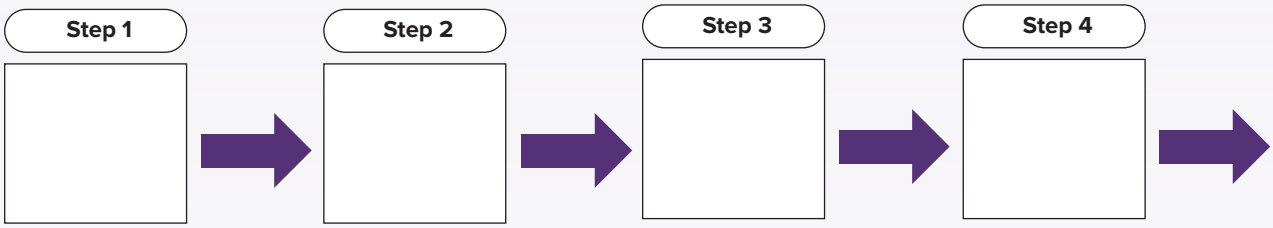
Circular Flow Diagram

Description: The Flow Diagram is used to outline steps in a process, which can help you to identify redundancies (steps to be eliminated), missing steps, and where to position your improvement activity within the existing steps.



Linear Flow Diagram

Description: The Flow Diagram is used to outline steps in a process, which can help you to identify redundancies (steps to be eliminated), missing steps, and where to position your improvement activity within the existing steps.



Force Field Analysis

Desired Change:	
Driving Forces (Those which currently exist & support or drive desired change)	**Restraining Forces** (Forces that may inhibit implementation of the desired change)

Description: A Force Field Analysis is a simple tool used with your team to identify and list out driving factors, which will help you to achieve your goal, and restraining factors, which you need to overcome to achieve your goal. Once you list out both factors, you can brainstorm ways to overcome the restraining factors. Sometimes, the driving factors can be used to overcome the restraining factors.

Aim Statement Development Template

Selected Improvement Idea: _____

Who is involved: _____

What is the idea: _____

When will this be completed: _____

How will you make an improvement: _____

Final Aim Statement:

We aim to improve _____ by _____% as of _____, 2025
(what will Improve) *(how much will Improve)* *(date for goal/by when will it improve)*

with _____ through the use of _____
(define population) *(brief description of improvement idea)*

_____
(brief desciption of improvement idea)

Description: An Aim Statement helps to identify what specific area is being focused on for improvement and includes a numerical to be achieved. The Aim Statement also includes information on the population of focus on and what kind of activities will be used.
The Aim Statement is time bound to ensure a sense of urgency to keep your team moving forward to reach your goal.

Action Plan Development Template

Description: An action plan details who will be responsible for each aspect of the improvement. It includes information on the activities to be performed, the timeframe in which they will be performed, and where they will be performed.

QI Action Plan Development

Selected Improvement Idea: _____

Goal: _____

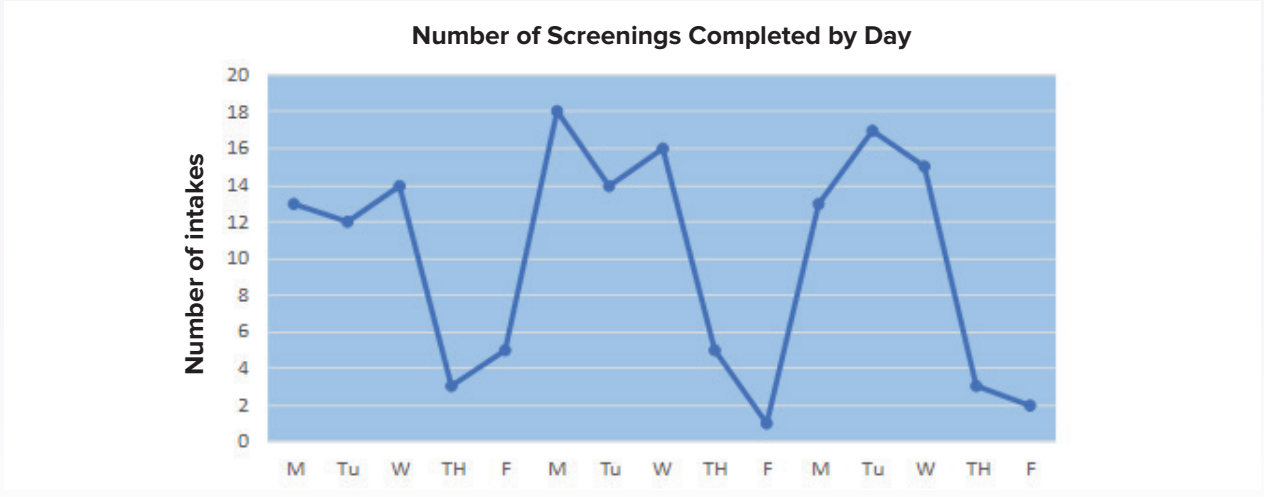
Improvement Activity: _____

Hypothesis: _____

Measure (How will you know there is an improvement?): _____

Action Plan		
Who	What	When

Run Chart



Description: A run chart is a visual, graphic tool to understand and monitor changes over time. It can help you to share changes, including improvements, with your team and others.

SMART Metrics Prioritization Table

Activity	Specific? (score 1-5)	Measureable? (score 1-5)	Achievable? (score 1-5)	Relevant? (score 1-5)	Timely? (score 1-5)	Overall Score
Example: patient driven assessments ensuring multidisciplinary strategy	3 (need to define the assessments)	3 (need to develop measure)	3 (need buying from patients)	5 (yes)	2 (need buying and approval from leadership, etc.)	16

Description: A prioritization table can be used to help your team to identify and prioritize which changes to focus on. Use of the smart metrics can help to determine and measure which activity is most specific, measurable, achievable, relevant, and timely.

All tools included above can be found as fillable and downloadable documents on the Quality of Care Program Website at: quality.aidsinstituteny.org

Also, quality coaching is available to assist you in the development of your quality improvment project by contacting Dan Belanger at Daniel.Belanger@health.ny.gov or 212-417-5131

Modified WHO ICOPE Screening Tool

Patient Name & DOB: _____ **Screener Name:** _____ **Screening Coinplete?** ☐ **Date:** _____ **MODIFIED WHO ICOPE SCREENING TOOL**		*Assess fully any domain with a checlced box.*
Memory	1. Remember three words (e.g., flower, door, rice)? 2. Orientation in time and space: What is the month, day, and year today? Where are you now (home, clinic, etc.)? 3. Recalls all three words?	☐ wrong to either question or ☐ doesn't know ☐ No
Mobility	1. Are you able to iln around without difficulty? 2. Do you require durable (e.g., cane, walker) medical equipment for moving around? 3. *In Person Only* Chair rise test: Rise from the chair five times without using arms. Did the person complete 5 chair rises within l4 seconds?	☐ No ☐ Yes ☐ Yes
Nutrition	1. Weight: Have you unintentionally lost more than 3kg/6.6lbs over the last three months? 2. Appetite: Have you experienced loss of appetite? 3. Are you able to eat without difficurty?	☐ Yes ☐ Yes ☐ No
Vision	1. Are you having trouble seeing, even with wearing glasses or contacts? 2. Have you had an eye test in the last 12 months?	☐ Yes ☐ No
Hearing	1. Are you having trouble hearing, even with hearing assistance (e.g., hearing aids)? 2. *In Person Only* Hears whispers (whisper test), screening audiometry results 35 dB or less, or passes automated app-based in-noise test	☐ Yes ☐ No
Mood	1. Over the past two weeks, have you been bothered by: - Feeling down, depressed, or hopeless? - Little interest or pleasure in doing things? - Feeling lonely or isolated?	☐ Yes ☐ Yes ☐ Yes
Notes	Space for other comments.	

Description: The 'Integrated Care for Older People' (ICOPE) screening tool was developed by the World Health Organization. The Lifetime and Long-term Survivors of HIV Subcommittee on the Consumer Advisory Committee and the Quality Advisory Committee at the AIDS Institute modified the tool to address HIV-specific aging. The tool was successfully tested by 14 pilot sites, including clinical and supportive services organizations, around the state. It is currently available at the QOC website.

This screening tool can be found at:
quality.aidsinstituteny.org/QualManage/QualManage/QM_Aging_and_Long_term_Survivors_En

6 HEART AND BRAIN HEALTH RESOURCES

Heart Health


Exercise to Prevent Accelerated Vascular Aging in People Living with HIV[12]


American Heart Association Life's Essential 8 Checklist[13]


Core Components of Cardiac Rehabilitation Programs[14]

Brain Health


Goal Management Training to Improve Cognitive Health[15]


Cognitive Remediation Group Therapy as Online Intervention for People Aging with HIV[16]

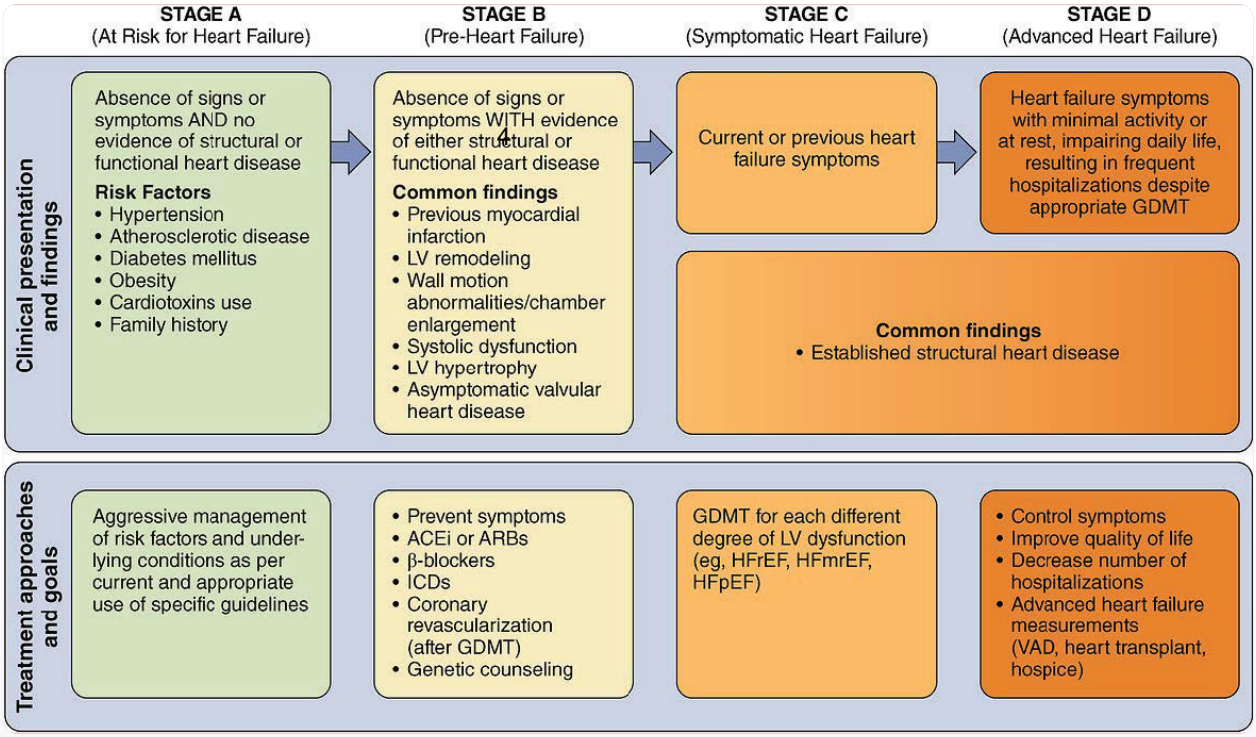

Alzheimer's Association Brain Health Habit Builder[17]

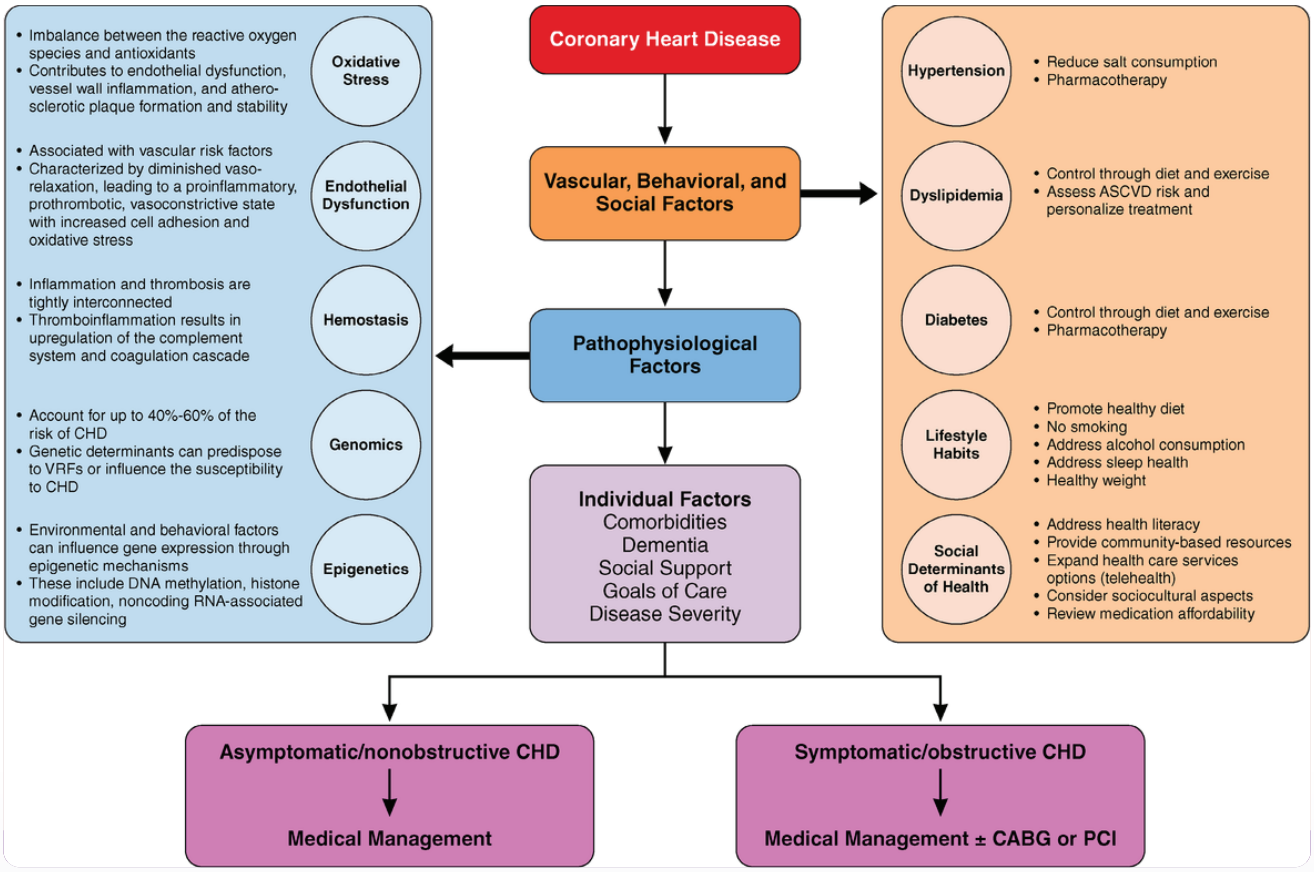

Lancet Commission on Dementia Prevention, Intervention and Care[18]

Heart and Brain Health



Cardiac Contributions to Brain Health from the American Heart Association[5]





The US POINTER Randomized Clinical Trial, Structure vs Self-Guided Multidomain Lifestyle Interventions for Global Cognitive Function
jamanetwork.com/journals/jama/fullarticle/2837046[19]

Safe Senior Adult Fitness Exercise Videos
safe-seniors.com/exercises[20]

Managing multimorbidity
JIAPAC1245228 1..19[21]

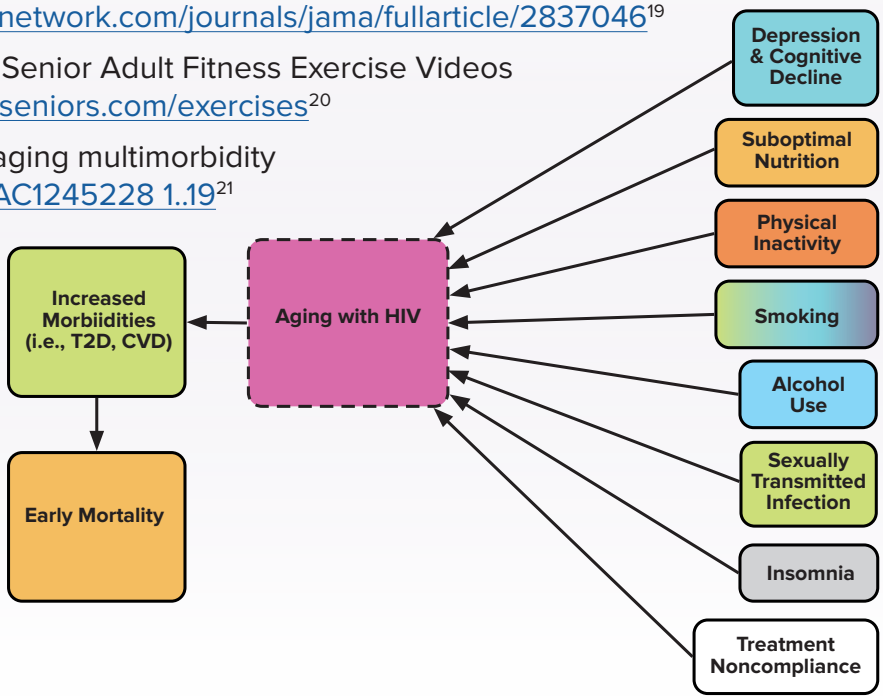


Table 1: Positive Lifestyle Factors Improve the Health and Well-Being of Aging Persons Living with HIV and Multimorbidity.

Positive lifestyle factors	Benefits of positive lifestyle factors
Decreased Depressive Symptoms and Depression	**Increase** quality of life, cognition, smoking cessation, and treatment adherence. **Decrease** alcohol and substance use and risk of morbidity (i.e., T2D, HTN).
Positive Neuroplasticity[a]	**Increase** cognitive functioning (i.e., visual attention, processing speed, semantic memory, and perceptual speed).
Optimal Nutrition	**Increase** compliance with RDI, gut integrity, BMD, muscle mass and function, and cognition. **Decrease** VAT[b] gain, obesity, malnutrition, risk of morbidity (i.e., T2D, CVD), and frailty[c].
Physical Activity	**Increase** muscle mass and function, BMD, cardiorespiratory fitness, and cognition. **Decrease** VAT[b] gain, frailty[c], falls, risk of fractures, depressive symptoms, depression, and risk of morbidity (i.e., osteoporosis, CVD, HTN, T2D).
Smoking Cessation	**Decrease** HIV-related infections (i.e., bacteria and pneumocystis pneumonia), risk of morbidity (i.e., coronary pulmonary disease, heart disease, stroke, cancer), treatment nonadherence, and mortality.

Table 2: Positive Lifestyle Factors Improve the Health and Well-Being of Aging Persons Living with HIV and Multimorbidity.

Positive lifestyle factors	Benefits of positive lifestyle factors
Minimal Alcohol Use[a]	**Decrease** of morbidity (i.e., liver disease, CVD, T2D, cerebrovascular disease, cancer, renal disease, osteoporosis, neurocognitive impairment), medication noncompliance, ART resistance, unsafe sex, immune activation, inflammation, and mortality.
Safer Sex Practices	**Decrease** transmitting HIV and coinfections (i.e., gonorrhea, syphilis), and being co-infected with sexually transmitted viruses (i.e., HPV).
Quality Sleep	**Increase** cognitive functioning (ie, reaction time, problem-solving). **Decrease** depression, inadequate emotional regulation, risk of morbidity (i.e., HTN, CVD, T2D), risk of VAT[b] gain, and insulin resistance.
HIV-Related Treatment Adherence	**Decrease** viral replication, ART resistance, and viral transmission during unprotected sex.
Non-HIV Related Treatment Adherence	**Decrease** worsening of physical conditions (i.e., HTN, T2D, CVD, dyslipidemia, insulin resistance).

Table taken from: Negative lifestyle factors specific to aging persons living with HIV and multimorbidity. J Int Assoc Provid AIDS Care. 2024;23. doi:10.1177/23259582241245228

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