HRSA
Health Resources & Services Administration

Utilizing Ryan White Resources To Address Aging Associated Cardiovascular and Metabolic Comorbidities via Lifestyle Modification

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Vision: Healthy Communities, Healthy People

Life Expectancy Gap

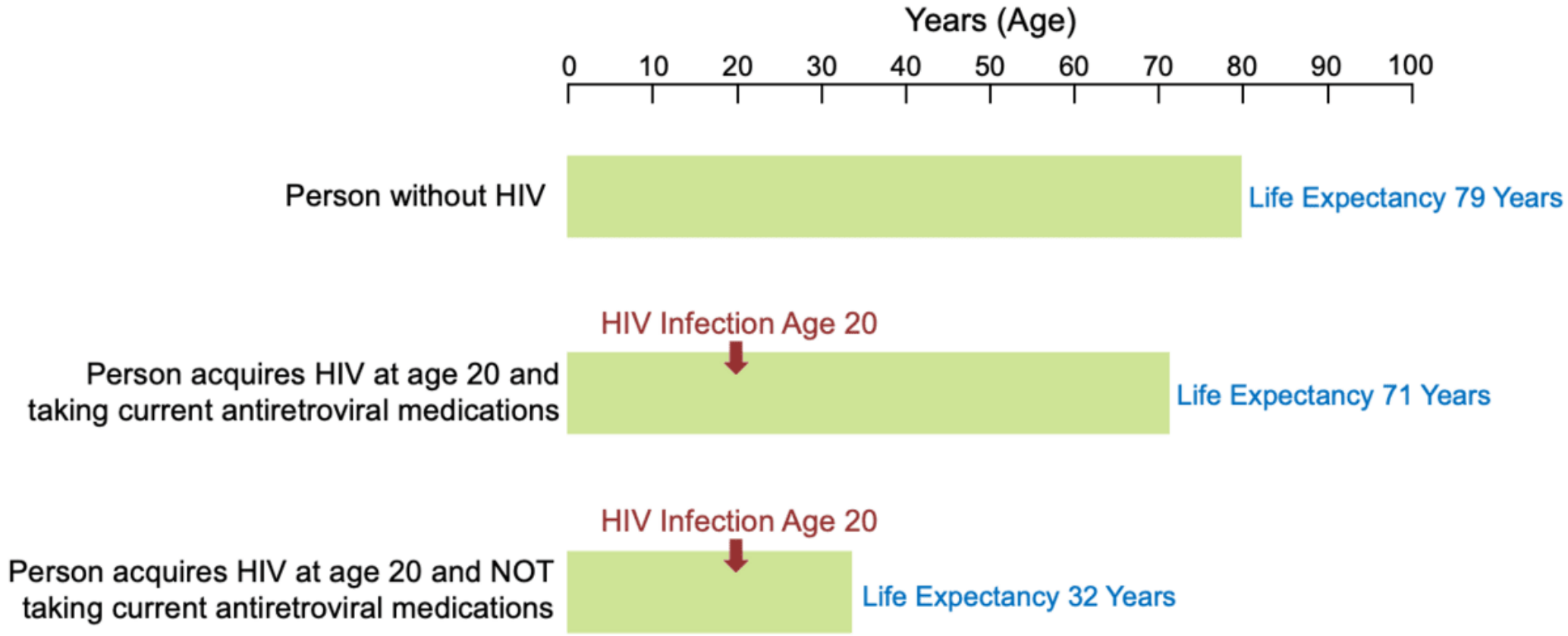


Illustration from National HIV Curriculum – www.hiv.uw.edu

Samji H, Cescon A, Hogg RS, et al. Closing the gap: increases in life expectancy among treated HIV-positive individuals in the United States and Canada. PLoS One. 2013;8:e81355.

Quality of Life Gap: Accelerated and Accentuated Aging

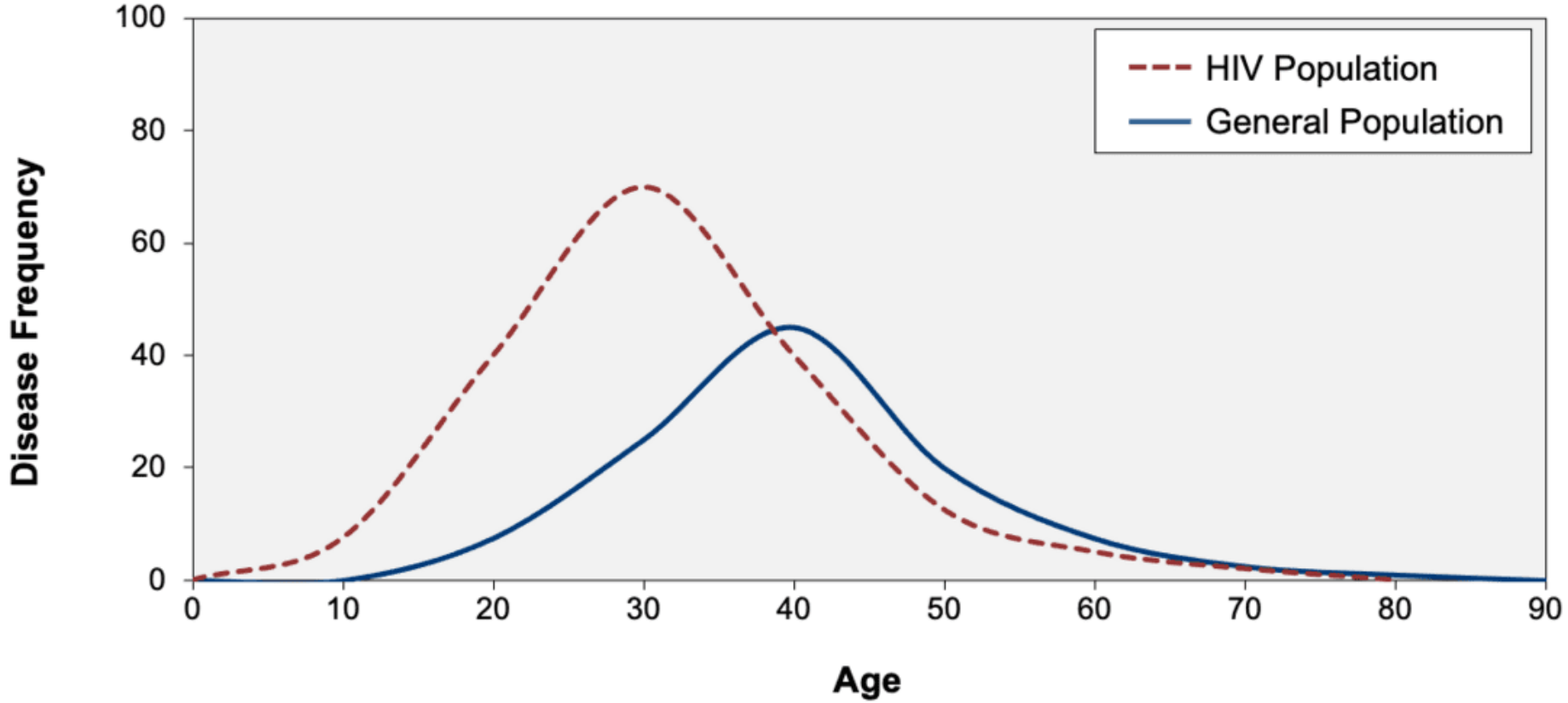
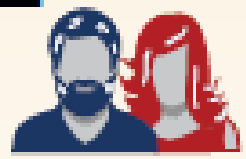


Illustration from National HIV Curriculum – www.hiv.uw.edu

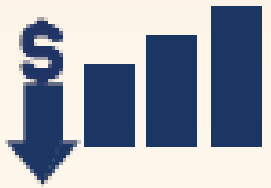
Aging with HIV within the Ryan White Program

Ryan White HIV/AIDS Program Fast Facts: Older Adult Clients (Aged 50+)

48.2% OF ALL RWHAP CLIENTS ARE AGED 50+



57.1% LIVE AT OR BELOW 100% of the Federal Poverty Level



92.9% ARE VIRALLY SUPPRESSED

3.8% EXPERIENCE UNSTABLE HOUSING

Common Metabolic and Cardiovascular Comorbidities

- Hypertension
- Metabolic Syndrome
- Cardiovascular Disease (CVD)
- Type 2 Diabetes
- Dyslipidemia
- NAFLD/MAFLD (Nonalcoholic fatty liver disease/Metabolic dysfunction associated liver disease)

Contributing Factors

- Frailty
- Obesity/overweight
- Tobacco use
- Alcohol use

Metabolic Syndrome

- Some variety in definitions
- Core components
  - Central obesity
  - Dyslipidemia
  - Insulin resistance with hyperglycemia
  - Hypertension
- Prevalence among people with HIV: 16.7 – 31.3% and rising
  - Result of traditional risk factors, virus associated factors and ART
- Potential pathophysiology
  - Persistent pro-inflammatory state
    - ✓ Reduced by ART, but not eliminated
- Causal link with other comorbidities
  - Type 2 diabetes
  - Cardiovascular disease
- Epidemiologically associated with other comorbidities
  - Chronic kidney disease (CKD)
  - NAFLD/MAFLD

Weight Gain

- Majority occurs within the first year of ART
  - Greater weight gain among:
    - ✓ People with lower nadir CD4 counts
    - ✓ People with higher baseline HIV viral loads
    - ✓ After successful treatment of opportunistic infections
- Some evidence of increased risk of weight gain among women, particularly black women
- “Return to health” vs “unhealthy” weight gain
- Impact of ART regimens being elucidated

HIV Associated Body Fat Distribution

- Lipodystrophy
  - Lipoaccumulation: Fat accumulation in the back of the neck/shoulder blades, neck, abdomen and breasts
  - Lipoatrophy: loss of fat from the face, extremities and buttocks
    - ✓ Long-standing history of stigmatization, resulting in fear of weight loss among some people with HIV
  - Associated with insulin resistance and dyslipidemia
  - Lower prevalence with more recent generations of ART
    - ✓ Risk factors: older age, use of NRTIs and PIs and total duration of ART
- Consider cultural/community associated perceptions of weight distribution

NAFLD/MAFLD and NASH/MASH

- Up to 60% of people with HIV have aminotransferase abnormalities
- NAFLD/MAFLD prevalence: 30 – 65% among people with HIV
- Associated with increased risk of CVD
- Increased risk of lean NAFLD/MAFLD: NAFLD/MAFLD with normal range BMI
  - Association between NAFLD and HIV associated lipodystrophy
- 55% of people with HIV with chronically elevated liver enzymes had NASH/MASH
  - Risk of NASH (nonalcoholic steatohepatitis) /MASH (metabolic dysfunction associated steatohepatitis) associated with duration of HIV infection
- NASH/MASH: a more severe and progressive subtype
  - Additional increase in liver-related mortality
  - Additional increase in CVD disease risk (13 – 30%)
- Fibrosis stage associated with long-term mortality
  - 12.1% of those with F3 fibrosis and 45% of those with F4 fibrosis/cirrhosis developed decompensated liver disease over 20 years
- Hepatocellular carcinoma can occur without prior cirrhosis

Impact of Lifestyle Modification on NAFLD/MAFLD

- NAFLD/MAFLD
  - Exercise in the absence of weight loss associated with decreased risk of developing NASH/MASH
    - ✓ Doubling of exercise time decreased risk of developing advanced fibrosis
    - ✓ Decreased liver fat
  - Weight loss
    - ✓ 3 – 5%: improvement in steatosis
    - ✓ >7%: improvement in steatohepatitis
    - ✓ >10%: improvement in fibrosis and potential reversal of NASH/MASH

Cardiovascular Disease (CVD)

- Unlike individuals without HIV, women with HIV are at higher risk of CVD than men with HIV
- CVD risk calculators underestimate CVD risk for people with HIV
- People with HIV have a 1.68 higher odds of HTN

Poll Question: What nutritional products, if any are offered in your outpatient ambulatory settings?

- Protein shakes or other form of protein supplementation
- Salt substitute seasonings
- Sugar sweetened beverage alternative flavorings

Lifestyle Modification Integration Strategies: Outpatient Ambulatory Health Services

- Which clinician(s) is/are diagnosing and managing cardiovascular and metabolic comorbidities?
- HIV primary care vs infectious disease clinic models
- Lifestyle modification clinical champion(s) with additional training
  - Prior licensing (e.g., registered dietician)
  - Lifestyle medicine certification
  - Certified diabetes educator
  - Nurse led model (e.g., EXTRA-CVD study)
- Availability of tools to assessment body composition and metabolic comorbidities
- If nutritional supplementation is available, what's the scope?
  - Is eligibility limited to low BMI/weight loss?
  - Potassium salt substitutes
  - Sugar-sweetened beverage alternatives
- Referral to physical therapy indications
  - Used for deconditioning/improvement of exercise capacity?

Example Service Standards for Outpatient/Ambulatory Services: Provider Qualifications

Standard	Documentation/Measure
• Outpatient/ambulatory medical providers must demonstration annual completion of HIV/AIDS continuing education that includes metabolic comorbidity identification and management	• Annual continuing education and topics documented in personnel file and/or specialty certification file

Example Service Standards for Outpatient/Ambulatory Services: Assessment

Standard	Documentation/Measure
• Outpatient/ambulatory medical programs should perform metabolic laboratory monitoring testing as stated in the HHS Guidelines for Antiretroviral Treatment	• Documentation of lipid and glucose metabolic indicators at intervals recommended by HHS Guidelines • Documentation of laboratory and medical history data into cardiovascular risk estimation tools

• Additional elements included in the comprehensive medical history and physical assessment performed by the outpatient medical care provider are:
  • 1. Nutritional status, including body habitus and composition 2. Metabolic health/comorbidities
	• Documentation of:
	  • Height, weight, BMI, waist circumference, adipose tissue distribution
	  • Estimated daily calorie needs accounting for patient's body weight goal
	  • Physical activity capacity
	  • Assessment of risk and/or level of control of metabolic comorbidities based on laboratory results, physical exam findings and medical history

Example Service Standards for Outpatient/Ambulatory Services: Coordination

Standard	Documentation/Measure

• Outpatient/ambulatory medical programs should:
  • Provide education and counseling on health and prevention issues
  • Provide and/or refer to "specialty care related to HIV diagnosis," which includes metabolic comorbidities
	• Documentation of:
	  • Estimation of risk and/or level of control of metabolic comorbidities based on laboratory results, physical exam findings and medical history
	  • Individualized assessment of capacity and counseling regarding pharmacologic and lifestyle modification strategies to reduce metabolic comorbidity associated health risks
	• Internal or external referral for the aforementioned services as needed

Poll Question: What percentage of patients/clients use medical nutrition services?

- </=15%
- 15 – 50%
- >/= 50%

Poll Question: Where do patients/clients access dietary counseling?

Lifestyle Modification Integration Strategies: Medical Nutrition Therapy

- Where are dieticians located and how do they provide services?
  - Phone/video consultation ability?
  - Referral criteria/process?
    - ✓ Are referral indications limited to low BMI/weight loss?
- Collaboration with retail dieticians?
  - Services offered: grocery store tours, group classes, individualized counseling, cooking classes, nutrition label interpretation instruction, tele-nutrition services, recorded content etc.
- Collaboration with specialty pharmacies that have dieticians?
- Evaluation of meal delivery services inventory?
  - Dietary supplements AND substitutes

Example Service Standards for Medical Nutrition Therapy: Referral

Standard	Documentation/Measure

• Referrals to medical nutrition therapy includes relevant baseline data	• Referral contains at minimum:
	  • Diagnoses and medical history
	  • Metabolic indicators
	  • Medications, including alternative and complementary therapies
	  • Indicators of kidney and liver status
	  • Living situation
	  • Patient's desired outcomes

• Services are provided by a licensed dietician or nutritionist in patient's desired geographic area or modality when feasible	• Listing of licensed dieticians and/or nutritionists in patient's geographic area and/or available via teleconsult provided to patient
• Services are performed outside of the outpatient/ambulatory setting	• Documentation of referral

Example Service Standards for Medical Nutrition Therapy: Assessment & Reassessment

Standard	Documentation/Measure

• An individualized assessment of client's nutritional status and goals is performed	• Assessment documents the incorporation of:
	  • Baseline health status
	  • Medical and laboratory data from outpatient medical provider
	  • Food allergies/intolerances
	  • Dietary interactions with patient's medications and complimentary therapies
	  • Food preparation capacity
	  • Body composition, including adipose tissue distribution
	  • Cultural/ethical/religious dietary limitations
	  • Relevant psychosocial data
	  • Dietary/nutritional goals

Example Service Standards for Medical Nutrition Therapy: Care Plan

Standard	Documentation/Measure

• An individualized, mutually developed care plan is established	• Signed and dated nutrition plan with:
	  • Medical history
	  • Laboratory and metabolic data
	  • Current diet
	  • Calculated nutrient needs
	  • Relevant psychosocial data
	  • Patient's nutritional goals
	• Planned interventions/strategies include:
	  • Dietary supplements and/or substitutions and their anticipated impact
	  • Strategy for acquiring and maintaining access to recommended supplements and/substitutes
	  • Frequency and number of sessions and their composition

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Poll Question: Who has subrecipients who provide grocery store cards?

Retail and Pharmacy-Based Dietician Examples

Poll Question: Are there dieticians available at the grocery stores to which vouchers are provided?

Poll Question: What products do food bank/home-delivered meals sub-recipients provide?

- Hot meals
- Protein shakes and other forms of protein supplementation
- Low carbohydrate meals
- Low sodium meals
- Salt substitute seasonings
- Sugar sweetened beverage replacement flavoring

Integration Strategies: Home and Community Based Health Services & Home Health Care

- Referral criteria for home health aide services and personal care services
  - Meal preparation assistance
  - Physical therapy services
- Referral criteria for home health care services
  - Assistance with subcutaneous injections
    - ✓ Evidence of benefit of semaglutide on NAFLD/MAFLD, CVD with CMS endorsement of coverage for obesity with CVD
    - ✓ Preventive health services (e.g. podiatry for DM2)

What other strategies have you used to improve access to lifestyle modification services?

Questions?

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Learn more about our program at our website:

ryanwhite.hrsa.gov

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https://public.govdelivery.com/accounts/USHHSHRSA/signup/29907

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