HALTING THE RISE IN OBESITY AND DIABETES

Life Stage: Senior/Elderly (65+ years)

INTERVENTION POINTS

1. Social Determinants/Health Promotion

National food and nutrition policies (accessibility and affordability of healthy food, food labelling etc)

National policies on provision of community spaces and opportunities for physical activity

Health Education/Promotion on avoidance of risk factors for obesity & diabetes; awareness and education on obesity

Adult Preventive Health Services and guidelines

Social mobilization and media & informational campaigns

Supportive and psychosocial services

2. Primary Prevention/Risk Reduction

Adult Preventive Health Guidelines and Services

Screening for risk factors for NCDs and referral for risk reduction

Lifestyle and behaviour change interventions

Availability of supportive services for promoting healthy lifestyles

3. Screening & Early Detection

Adult Preventive Health Services protocols and standards

Community-based weight and blood glucose screening guidelines

Referral resources for behavioural intervention, family support and health education

Statutory reporting for Diabetes Register

4. Care and Treatment

Clinical Protocols for management of excessive weight gain, overweight and obesity; and management of impaired glucose metabolism

Referral resources for development of diabetes self-care skills, family support and health education

Accessible treatment and care services for obesity & diabetes

Statutory reporting of diabetes diagnoses for National Register

5. Quality of Care

Adherence to national guidelines for clinical management

Access to treatment and care services for obesity & diabetes

Clinical Care Quality Reporting system with monitoring and accountability mechanisms

Defining Adult Overweight and Obesity

Weight Category	BMI
Underweight	<18.5
Normal Weight	18.5 - 24.9
Overweight	25.0 - 29.9
Obese	≥30

COMMENTS

An individual is considered morbidly obese if he/she is ***100 pounds over*** *his/her ideal body weight, has a* ***BMI of 40 or more****, or* ***35 or more and experiencing obesity-related health conditions****, such as high blood pressure or diabetes.*

Waist circumference *indicates higher risk of developing obesity-related conditions if:*

- *A male has a waist circumference of more than* ***40 inches***
- *A non-pregnant female has a waist circumference of more than* ***35 inches***

HEALTH PROMOTION

Supportive Policies

- Policies - food & menu labelling; affordability of healthy foods; active transportation
- National comprehensive health promotion incl. campaigns & informational, behavioural/social and environmental/policy interventions and approaches.
- Conditional incentives for behavior change (diet and physical activity).
- Vouchers for fruit and vegetable purchases for low-income persons

EVIDENCE

- *Food labelling empowers consumers in choosing healthier products; and interpretive labels, (e.g. traffic light labels), are more effective, but sustainability of effect is uncertain.*
- *Bans/restrictions on unhealthy foods, mandates offering healthy foods, altering purchase rules n foods purchased using low-income vouchers.*
- *Positive association between incentives and dietary behavior change in the short term; with larger incentives associated with better outcomes*
- *Subsidizing healthy behavior (e.g., fruit and vegetable consumption) in low-income households is preferable to taxation as a disincentive for unhealthy food choices*
- *Public policy on active transportation had strong impacts on physical activity.*

PRIMARY PREVENTION

- Measure height & weight; calculate BMI at all health care visits; waist circumference is also a useful measure.
- Social media and app-based interventions to improve diet and physical activity.
- Lifestyle/Behaviour Change Interventions for diet and physical activity
- Behavioural Counseling Interventions (5-As): **A**ssess, **A**dvise, **A**gree, **A**ssist, **A**rrange.

EVIDENCE

- *Behaviour change interventions for diet and physical activity are modestly effective both at short and long term*
- *Web-based interventions have potential to improve cardiovascular risk profile in older people, but the modest effect declines over time.*
- *Long-term physical activity interventions lasting 6 months or more showed effect on aerobic capacity but not lean body mass (important for balance – which can be a negative effect of weight reduction in later life. Resistance training must be included to build lean muscle.*
- *Dance therapy (regardless of style) improved muscle strength, endurance, balance and other aspects of functional fitness in older adults.*

SCREENING AND EARLY DETECTION

Obesity

- **All adults** should be screened for obesity.
- Adults with BMI of 30 or higher, should be offered referral to intensive multi-component behavioural interventions.

EVIDENCE

HALTING THE RISE IN OBESITY AND DIABETES

Life Stage: Senior/Elderly (65+ years)

Diabetes

- **All asymptomatic adults**: Screen for type 2 diabetes with an informal assessment of risk factors, or use a validated tool.
- Blood glucose testing in adult clients of any age considered if overweight or obese (BMI $\geq$25) and having one or more risk factors (test using either fasting plasma glucose, 2-hr plasma glucose after 75g oral glucose tolerance test, or HbA1c).
- **All persons should be tested beginning at age 45 years**. If normal, repeat at a minimum 3-year interval. Those with prediabetes should be tested yearly.

Patients with HIV *should be screened for diabetes and prediabetes (fasting glucose) every 6-12 months before starting ART; and 3 months after starting or changing ART. If normal, check fasting glucose annually. If prediabetic, measure fasting glucose every 3-6 months.*

CARE AND TREATMENT

- Obesity management:
  - Behavioural Interventions (minimum 12 weeks' duration)
  - Combined pharmacologic and behavioural intervention
- A comprehensive medical evaluation should be performed at the initial visit to confirm the diagnosis and classify diabetes (as for all adults).
- Diabetes care and treatment should be provided by a team to improve lifestyle management.
- Screening and assessment of medical, mental, functional, and social domains:
  - Annual screening for early detection of cognitive impairment or dementia
  - High priority for screening for depression
  - Screening for diabetes complications
- Statutory reporting for Diabetes Register

EVIDENCE

- *Older individuals with diabetes have higher rates/greater risks for:*
  - *premature death, functional disability, coexisting illnesses (coronary heart disease, hypertension, and stroke).*
  - *common geriatric syndromes, (e.g. polypharmacy, cognitive impairment, urinary incontinence, injurious falls, and persistent pain).*
  - *depression (should therefore be screened and treated accordingly).*
- *Screening for diabetes complications in older adults should be individualized and periodically revisited, as the results may impact therapeutic approaches and targets.*
- *Referrals for initial care management*
  - *Eye care professional*
  - *Family planning for women of reproductive age*
  - *Registered dietitian for medical nutrition therapy*
  - *Diabetes self-management education and support*
  - *Comprehensive oral health examination*
  - *Mental health professional, if indicated.*

QUALITY OF CARE

- Evaluation of neurocognitive function
- Treatment of other co-morbidities and risk factors (e.g. hypertension, cardiovascular risk factors)
- Routine vaccinations according to age-related recommendations
  - Annual influenza
  - Pneumonia vaccine - at 65 yrs of age, pneumococcal conjugate vaccine (PCV13) to be administered, as recommended.

EVIDENCE

Complete medical evaluation of Diabetic to include:

- *Neurocognitive function*
- *Client-specific Treatment goals (incl. prevention of hypoglycemia, HbA1C)*
- *Pharmacologic therapy (based on client & care-giver needs)*
- *Individualized Treatment in Nursing facilities and Care homes*
- *End-of-Life care and Advance Medical Directives*

Health professionals treating obesity should utilize disciplines that offer expertise in dietary counseling, physical activity, and behavior change through direct, formal relationships or an indirect referral.

KEY: BMI = Body Mass Index DOH = Department of Health GFR = Glomerular Filtration Rate

REFERENCES

1. Mayne, S.L., Auchincloss, A.H., & Michael, Y.L. (2015). **Impact of policy and built environment changes on obesity-related outcomes: A systematic review of naturally occurring experiments**. Obesity reviews.
2. Hyseni L, Atkinson M, Bromley H, Orton L, Lloyd-Williams F, McGill R, et al. (2016). **The effects of policy actions to improve population dietary patterns and prevent diet-related non-communicable diseases: Scoping review**. European Journal of Clinical Nutrition.
3. Beishuizen C, Stephan B, van Gool W, Brayne C, Peters R, Andrieu S, et al. (2016). **Web-based interventions targeting cardiovascular risk factors in middle-aged and older people: A systematic review and meta-analysis**. Journal of Medical Internet Research, 18(3), e55
4. Baker A, Sirois-Leclerc H, & Tulloch H. (2016). **The impact of long-term physical activity interventions for overweight/obese postmenopausal women on adiposity indicators, physical capacity, and mental health outcomes: A systematic review**. Journal of Obesity
5. Hwang P, & Braun K. (2015). **The effectiveness of dance interventions to improve older adults' health: A systematic literature review**. Alternative Therapies in Health & Medicine, 21(5).
6. Stehr,M.D., & Von Lengerke T. (2012). **Preventing weight gain through exercise and physical activity in the elderly: A systematic review**. Maturitas, 72(1)
7. **ADA Diabetes Care 2017.** http://care.diabetesjournals.org/content/diacare/suppl/2016/12/15/40.Supplement_1.DC1/DC_40_S1_final.pdf
8. **U.S. Preventive Services Task Force (2012)** https://www.uspreventiveservicestaskforce.org/Page/Document/RecommendationStatementFinal/obesity-in-adults-screening-and-management
9. Hassan Y, Head V, Jacob D, Bachmann M, Diu S, & Ford J. (2016). **Lifestyle interventions for weight loss in adults with severe obesity: A systematic review**. Clinical Obesity, 6(6), 395-403
10. NIH Guidelines (2013) **Managing Overweight and Obesity in Adults** https://www.nhlbi.nih.gov/sites/www.nhlbi.nih.gov/files/obesity-evidence-review.pdf