

# Introduction of Positive Cardiometabolic Health for People with an Intellectual Disability: an Early Intervention Framework



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# What will happen today?

- A forum for people with ID, carers and health professionals
- Launching Framework and resources
- Talks and panels
- Panels will respond to your questions



# What is the aim?



- Helping people with an ID, and carers know about staying healthy
- Helping medical professionals help people with ID to stay healthy
- Focus on heart and body (“Cardiometabolic”)
- How these things interact with mental health and treatments



# What is the problem?

- People with ID:
  - Can find it hard to live active, healthy lives
  - Can find it hard to get help from the doctor
  - May have untreated risk factors for heart and body health
- As a result, compared to people without ID:
  - Are at risk for “Cardiometabolic diseases”, often at a younger age
  - Die at twice the rate from potentially avoidable causes, the commonest of which is cardiovascular diseases



“persons with disabilities have the right to the enjoyment of the highest attainable standard of health”<sup>1</sup>

<sup>1</sup> Convention on the Rights of Persons with Disabilities and Optional Protocol Article 25 <http://www.un.org/disabilities/documents/convention/convoptprot-e.pdf>

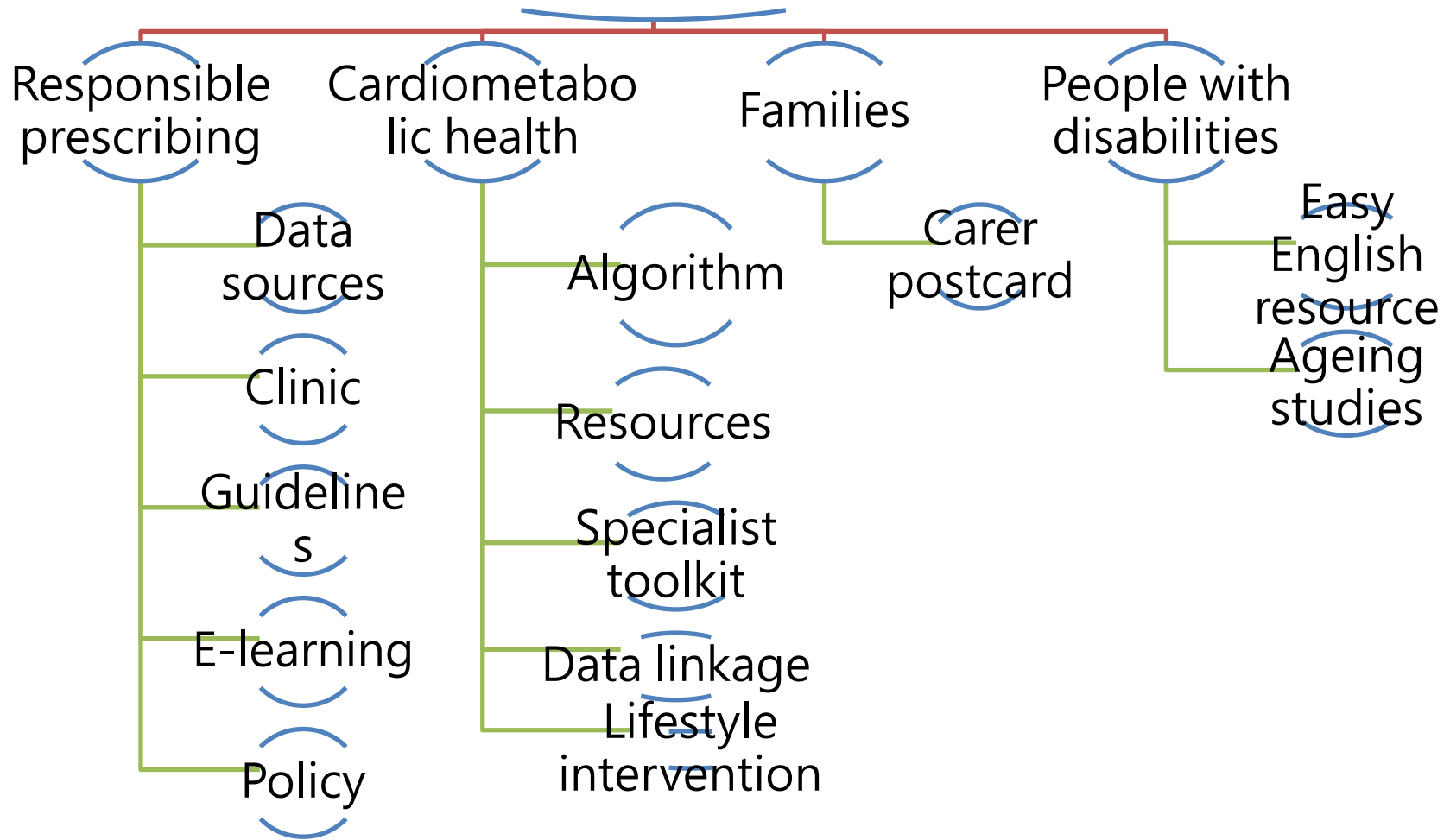


# How do we fix the problem?

- Show how important the problem is
- Advocate for improvement
- Educate health professionals, people with ID and carers
- Design tools that:
  - Help health professionals do a better job
  - Help people with ID access health professionals and services
  - Are tailored to the needs of people with ID



# Cardiometabolic Health



# What do we want you to know?

- If you are a person with ID or a carer, we want you to know about:
  - Things that are not good for heart and body health
  - Things you can do to keep your heart and body healthy
  - How to work with your doctor and supports on your heart and body health



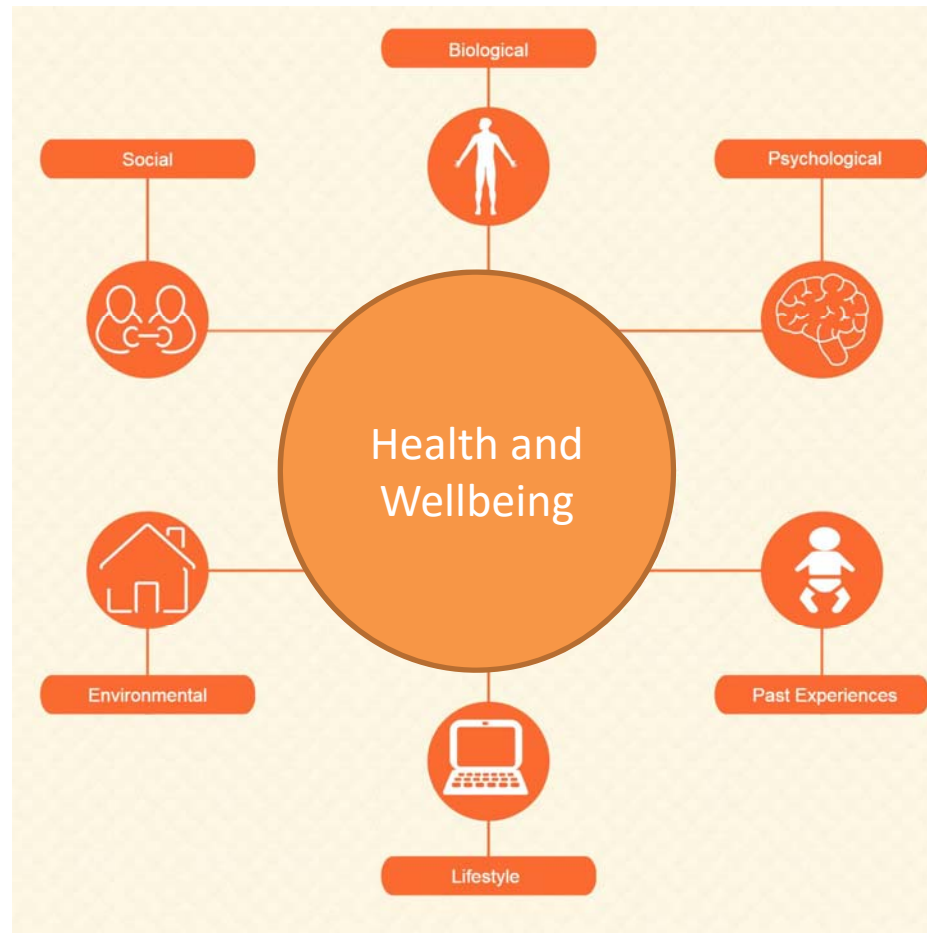


# What do we want you to know?



- If you are a health professional, we want you to know:
  - About cardiometabolic risk factors in people with ID and their impact
  - How to use the early intervention framework to assist screening and intervention for Cardiometabolic risk in people with ID
  - How to work in a multidisciplinary way on risk factor reduction
  - How to access resources on safe and responsible psychotropic prescribing
  - How to access resources to assist you to work with people with ID

# Health and wellbeing in people with intellectual disability: the person



# Things that increase risk for people with ID

- Higher rates of medicines for mental health
- Longer use of medicines from younger age
- Having risk factors for Cardiometabolic diseases eg being overweight, not being active
- Some genes
- Not enough money eg to spend on healthy living
- Poor access to healthcare

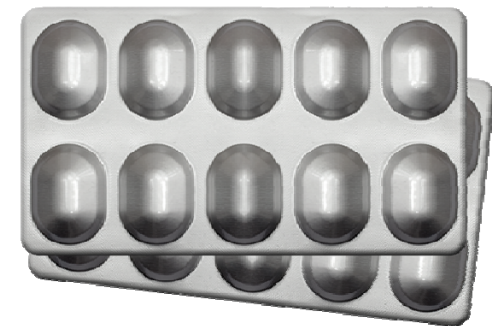
# Medications: for mental health or behaviour

- Sometimes they are necessary
- But sometimes they should have been reviewed and stopped (or never started)
- Many medicines increase weight, raise blood pressure and cause changes in blood sugar and blood fats
- A big problem are antipsychotic medicines, especially ones like olanzapine and clozapine
- This means that special monitoring of risk factors is required for someone on medications for mental ill health or behaviours of concern



# Medications: for other health conditions

- In general practice:
  - Overall less medication used
  - Less of: drugs to treat problems like blood pressure, diabetes, high cholesterol
  - But more of: antipsychotics, epilepsy drugs



# Physical Inactivity



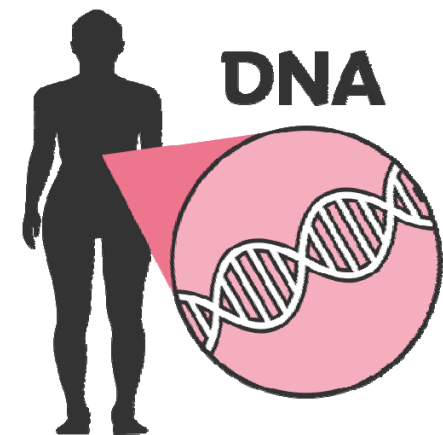
- People with ID are less physically active than people without ID
- Same for children, youth, adults, and older adults
- Some things that can affect physical activity include:
  - Physical (mobility, balance), sensory and/or cognitive impairments
  - Mental health and behavioural issues
  - Lack of money for specialised sporting equipment
  - Lack of accessible and appropriate facilities.
  - Lack of confidence of sporting and exercise professionals to meet the specific needs of people with an ID.

# Being Overweight or Obese

- People with ID are more likely than people without ID to be overweight or obese
- Same for children, adolescents and adults with ID
- Some things that can affect weight include:
  - Lower rates of physical activity
  - Lack of awareness of the health impacts of obesity
  - Feelings of isolation related to social stigma
  - Medicines for mental health
  - Certain genetic syndromes associated with ID also impact appetite,
  - Accommodation type (and culture)
    - less restrictive residential settings having an increased risk for obesity

# Factors linked to birth or Genetic Syndromes

- low birthweight is linked to ID and poorer cardiometabolic outcomes
  - early onset atherosclerosis, increased rates of hypertension, diabetes, cardiovascular mortality
- Several genetic syndromes are linked with cardiometabolic disease risk factors (see algorithm)





# Socioeconomic Disadvantage

- Independently associated with increased cardiometabolic risk
- Lack of jobs for people with ID



# Health Care Barriers

- People with ID can experience barriers to quality healthcare eg
  - Difficulty identifying and/or communicating symptoms and healthcare needs
  - Avoidance of having tests and procedures
  - Lack of skilled and confident health professionals
  - Lack of specific health care services
  - Underdiagnosis and management of chronic health conditions



# Positive Cardiometabolic Health for People with an Intellectual Disability: A suite of resources

- 2 online resources that help health professionals support cardiometabolic health in youth and adults with ID
- Toolkit of resources, tips for working with people with ID and factsheets to print off for people with ID
- Postcards resource for people with ID & carers
- Peer reviewed articles
- Additional prescribing & cardiometabolic health resources in development include:
  - Podcasts, focusing on responsible prescribing of psychotropic medication in people with ID
  - An online learning module for professionals focusing on cardiometabolic health and use of the Algorithm

## POSITIVE CARDIOMETABOLIC HEALTH FOR ADULTS WITH AN INTELLECTUAL DISABILITY: an early intervention framework

### ADAPT YOUR PRACTICE while addressing **STANDARD TARGETS**<sup>1</sup>

Plan for: communication adjustments; engagement with support networks; extra time; consent; teamwork.

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### Any values outside of target range: **DON'T JUST SCREEN – INTERVENE**

Tailored intervention brochures can be downloaded from <https://3dn.unsw.edu.au/positive-cardiometabolic-health-ID>

### Using a person-centred approach **PROVIDE TAILORED LIFESTYLE & NUTRITIONAL INTERVENTIONS:**

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For physical health interventions create a **GP Management Plan** (MBS item: 721) and a **Team Care Co-ordination Plan** (MBS item: 723).

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- Limit salt in diet

- Education about **blood pressure** management

- Tailor **diabetes** education/ intervention (**diabetes educator** (MBS item: 10951))

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- Consider switching, decreasing or discontinuing if metabolic side effects emerge; rationalise any polypharmacy; where possible avoid high metabolic liability medication **as first line treatment\*** (**home medicines review** – MBS item: 900); provide **psychotropic education**

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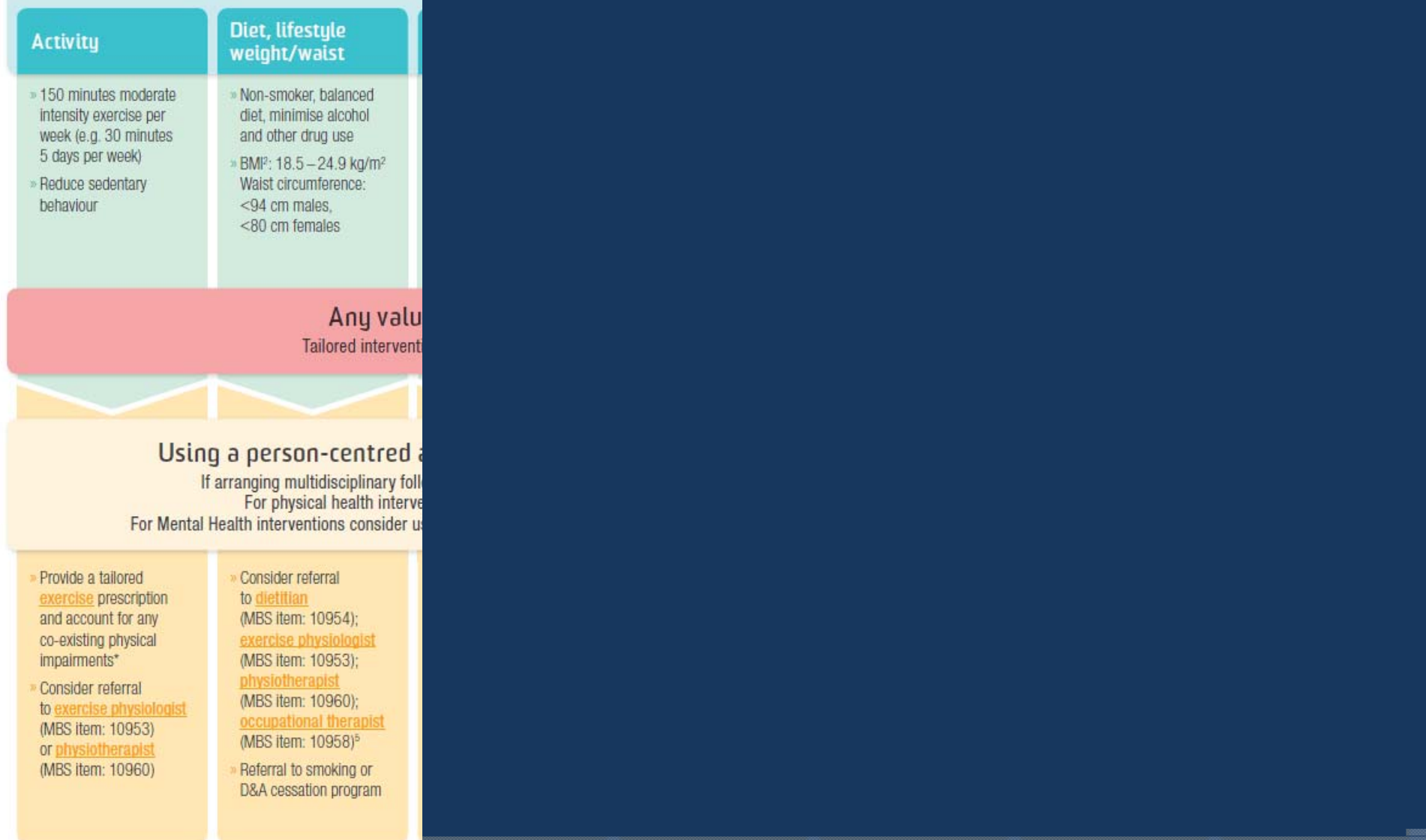
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Activity	Diet, lifestyle weight/waist	Socioeconomic resources	Blood pressure
<ul style="list-style-type: none"> <li>» 150 minutes moderate intensity exercise per week (e.g. 30 minutes 5 days per week)</li> <li>» Reduce sedentary behaviour</li> </ul>	<ul style="list-style-type: none"> <li>» Non-smoker, balanced diet, minimise alcohol and other drug use</li> <li>» BMI<sup>2</sup>: 18.5 – 24.9 kg/m<sup>2</sup></li> <li>» Waist circumference: &lt;94 cm males, &lt;80 cm females</li> </ul>	<ul style="list-style-type: none"> <li>» Socioeconomic status is associated with cardiometabolic health.</li> <li>» Ensure adequate access to housing, healthcare, transportation, education and employment opportunities</li> </ul>	<ul style="list-style-type: none"> <li>» For most: &lt;140 mmHg systolic and &lt;90 mmHg diastolic</li> <li>» For people with diabetes, chronic kidney disease or vascular disease: &lt;130/80 mmHg</li> </ul>

## Any values outside of target range: DON'T JUST

Tailored intervention brochures can be downloaded from <https://3dn.unsw.edu.au>

## Using a person-centred approach PROVIDE TAILORED LIFESTYLE INTERVENTIONS

If arranging multidisciplinary follow-up falls outside your practice scope make appropriate referrals

For physical health interventions create a **GP Management Plan** (MBS item: 721) and

For Mental Health interventions consider using a **Mental Health Treatment Plan** (MBS items: 2700, 2701)

<ul style="list-style-type: none"> <li>» Provide a tailored <b>exercise</b> prescription and account for any co-existing physical impairments*</li> <li>» Consider referral to <b>exercise physiologist</b> (MBS item: 10953) or <b>physiotherapist</b> (MBS item: 10960)</li> </ul>	<ul style="list-style-type: none"> <li>» Consider referral to <b>dietitian</b> (MBS item: 10954); <b>exercise physiologist</b> (MBS item: 10953); <b>physiotherapist</b> (MBS item: 10960); <b>occupational therapist</b> (MBS item: 10958)<sup>3</sup></li> <li>» Referral to smoking or D&amp;A cessation program</li> </ul>	<ul style="list-style-type: none"> <li>» Include social worker in multidisciplinary case conference (MBS items: 735 – 758). If the person has a diagnosed mental illness they can also receive individual <b>social worker</b> sessions (MBS item: 80150)</li> <li>» Referral to disability support services</li> </ul>	<ul style="list-style-type: none"> <li>» Consider antihypertensive therapy if lifestyle intervention alone is insufficient*</li> <li>» Limit salt in diet</li> <li>» Education about <b>blood pressure</b> management</li> </ul>
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<sup>1</sup>Certain causes of intellectual disability may alter baseline cardiometabolic risk – see over. <sup>2</sup>BMI may be inaccurate if person has muscle wasting. If BMI is >30, assume to detect or treat hypoglycaemia, the elderly, or those with reduced life expectancy. <sup>3</sup>Weight gain in first 3 months should be <5 kg (or <=7% from baseline); <sup>4</sup>In people

# POSITIVE CARDIOMETABOLIC HEALTH FOR ADULTS WITH AN INTELLECTUAL DISABILITY: an early intervention framework

## ADAPT YOUR PRACTICE while addressing STANDARD TARGETS<sup>1</sup>

Plan for: communication adjustments; engagement with support networks; extra time; consent; teamwork.

Activity	Diet, lifestyle weight/waist	Socioeconomic resources	Blood pressure	Glucose regulation
<ul style="list-style-type: none"> <li>» 150 minutes moderate intensity exercise per week (e.g. 30 minutes 5 days per week)</li> <li>» Reduce sedentary behaviour</li> </ul>	<ul style="list-style-type: none"> <li>» Non-smoker, balanced diet, minimise alcohol and other drug use</li> <li>» BMI<sup>2</sup>: 18.5 – 24.9 kg/m<sup>2</sup> Waist circumference: &lt;94 cm males, &lt;80 cm females</li> </ul>	<ul style="list-style-type: none"> <li>» Socioeconomic status is associated with cardiometabolic health.</li> <li>» Ensure adequate access to housing, healthcare, transportation, education and employment opportunities</li> </ul>	<ul style="list-style-type: none"> <li>» For most: &lt;140 mmHg systolic and &lt;90 mmHg diastolic</li> <li>» For people with diabetes, chronic kidney disease or vascular disease: &lt;130/80 mmHg</li> </ul>	<ul style="list-style-type: none"> <li>» FPG target: &lt;5.5 mmol/L</li> <li>» Individualise HbA1c targets for people with diabetes, generally &lt;7% (53 mmol/mol)<sup>3</sup></li> <li>» For aversion to venepuncture see over</li> </ul>

## Any values outside of target range: DON'T JUST SCREEN – INTERVENE

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## Using a person-centred approach PROVIDE TAILORED LIFESTYLE & NUTRITION INTERVENTIONS

If arranging multidisciplinary follow-up falls outside your practice scope make appropriate referrals to the person's GP and other health professionals.

For physical health interventions create a **GP Management Plan** (MBS item: 721) and a **Team Care Co-ordination Plan** (MBS item: 722).

For Mental Health interventions consider using a **Mental Health Treatment Plan** (MBS items: 2700, 2701, 2715 or 2717) and refer to a mental health professional.

<ul style="list-style-type: none"> <li>» Provide a tailored <b>exercise</b> prescription and account for any co-existing physical impairments*</li> <li>» Consider referral to <b>exercise physiologist</b> (MBS item: 10953) or <b>physiotherapist</b> (MBS item: 10960)</li> </ul>	<ul style="list-style-type: none"> <li>» Consider referral to <b>dietitian</b> (MBS item: 10954); <b>exercise physiologist</b> (MBS item: 10953); <b>physiotherapist</b> (MBS item: 10960); <b>occupational therapist</b> (MBS item: 10958)<sup>5</sup></li> <li>» Referral to smoking or D&amp;A cessation program</li> </ul>	<ul style="list-style-type: none"> <li>» Include social worker in multidisciplinary case conference (MBS items: 735 – 758). If the person has a diagnosed mental illness they can also receive individual <b>social worker</b> sessions (MBS item: 80150)</li> <li>» Referral to disability support services</li> </ul>	<ul style="list-style-type: none"> <li>» Consider antihypertensive therapy if lifestyle intervention alone is insufficient*</li> <li>» Limit salt in diet</li> <li>» Education about <b>blood pressure</b> management</li> </ul>	<ul style="list-style-type: none"> <li>» Tailor <b>diabetes</b> education/ intervention (<b>diabetes educator</b> (MBS item: 10951))</li> <li><b>DIABETES:</b> FPG <math>\geq 7.0</math> mmol/L; RPG <math>\geq 11.1</math> mmol/L; HbA1c <math>&gt; 5.6\%</math> (38 mmol/mol) – Endocrine review, monitor HbA1c 3 monthly</li> <li><b>AT RISK: 5.6 – 6.9 mmol/L</b> – 6 monthly glucose monitoring, consider metformin if lifestyle intervention insufficient</li> </ul>
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<sup>1</sup>Certain causes of intellectual disability may alter baseline cardiometabolic risk – see over. <sup>2</sup>BMI may be inaccurate if person has muscle wasting. If BMI is  $> 30$ , assume at risk waist circumference. <sup>3</sup>Higher HbA1c targets may be appropriate for people with comorbidities such as hypoglycaemia, the elderly, or those with reduced life expectancy. <sup>4</sup>Weight gain in first 3 months should be  $< 5$  kg (or  $\leq 7\%$  from baseline); <sup>5</sup>In people with dietary insufficiencies consider che



# POSITIVE CARDIOMETABOLIC HEALTH FOR ADULTS WITH AN INTELLECTUAL DISABILITY: an early intervention framework

## ADAPT YOUR PRACTICE while addressing STANDARD TARGETS<sup>1</sup>

Plan for: communication adjustments; engagement with support networks; extra time; consent; teamwork.

Activity	Diet, lifestyle weight/waist	Socioeconomic resources	Blood pressure	Glucose regulation	Fasting blood lipids
<ul style="list-style-type: none"> <li>» 150 minutes moderate intensity exercise per week (e.g. 30 minutes 5 days per week)</li> <li>» Reduce sedentary behaviour</li> </ul>	<ul style="list-style-type: none"> <li>» Non-smoker, balanced diet, minimise alcohol and other drug use</li> <li>» BMI<sup>2</sup>: 18.5 – 24.9 kg/m<sup>2</sup></li> <li>» Waist circumference: &lt;94 cm males, &lt;80 cm females</li> </ul>	<ul style="list-style-type: none"> <li>» Socioeconomic status is associated with cardiometabolic health.</li> <li>» Ensure adequate access to housing, healthcare, transportation, education and employment opportunities</li> </ul>	<ul style="list-style-type: none"> <li>» For most: &lt;140 mmHg systolic and &lt;90 mmHg diastolic</li> <li>» For people with diabetes, chronic kidney disease or vascular disease: &lt;130/80 mmHg</li> </ul>	<ul style="list-style-type: none"> <li>» FPG target: &lt;5.5 mmol/L</li> <li>» Individualise HbA1c targets for people with diabetes, generally &lt;7% (53 mmol/mol)<sup>3</sup></li> <li>» For aversion to venepuncture see over</li> </ul>	<ul style="list-style-type: none"> <li>» TChol ≤5.5 mmol/L</li> <li>» LDL ≤4 mmol/L</li> <li>» For people with high CV risk (e.g. diabetes, hypertension, chronic kidney disease and prior heart disease): consider LDL ≤2 mmol/L</li> <li>» Trig ≤1.6 mmol/L</li> </ul>

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## Using a person-centred approach PROVIDE TAILORED LIFESTYLE & NUTRITIONAL INTERVENTIONS

If arranging multidisciplinary follow-up falls outside your practice scope make appropriate referrals to the person's GP and ensure proactive follow-up

For physical health interventions create a **GP Management Plan** (MBS item: 721) and a **Team Care Co-ordination Plan** (MBS item: 723).

For Mental Health interventions consider using a **Mental Health Treatment Plan** (MBS items: 2700, 2701, 2715 or 2717) and referral to a psychiatrist and/or psychologist

<ul style="list-style-type: none"> <li>» Provide a tailored <b>exercise</b> prescription and account for any co-existing physical impairments*</li> <li>» Consider referral to <b>exercise physiologist</b> (MBS item: 10953) or <b>physiotherapist</b> (MBS item: 10960)</li> </ul>	<ul style="list-style-type: none"> <li>» Consider referral to <b>dietitian</b> (MBS item: 10954); <b>exercise physiologist</b> (MBS item: 10953); <b>physiotherapist</b> (MBS item: 10960); <b>occupational therapist</b> (MBS item: 10958)<sup>5</sup></li> <li>» Referral to smoking or D&amp;A cessation program</li> </ul>	<ul style="list-style-type: none"> <li>» Include social worker in multidisciplinary case conference (MBS items: 735 – 758). If the person has a diagnosed mental illness they can also receive individual <b>social worker</b> sessions (MBS item: 80150)</li> <li>» Referral to disability support services</li> </ul>	<ul style="list-style-type: none"> <li>» Consider antihypertensive therapy if lifestyle intervention alone is insufficient*</li> <li>» Limit salt in diet</li> <li>» Education about <b>blood pressure</b> management</li> </ul>	<ul style="list-style-type: none"> <li>» Tailor <b>diabetes</b> education/ intervention (<b>diabetes educator</b> (MBS item: 10951))</li> <li>» <b>DIABETES:</b> FPG ≥7.0 mmol/L; RPG ≥11.1 mmol/L; HbA1c &gt;5.6% (38 mmol/mol) – Endocrine review, monitor HbA1c 3 monthly</li> <li>» <b>AT RISK: 5.6 – 6.9 mmol/L</b> – 6 monthly glucose monitoring, consider metformin if lifestyle intervention insufficient</li> </ul>	<ul style="list-style-type: none"> <li>» Consider Statin if lifestyle intervention alone is insufficient*. Consider in context of absolute risk stratification</li> <li>» Fibrate for triglycerides</li> </ul>
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<sup>1</sup>Certain causes of intellectual disability may alter baseline cardiometabolic risk – see over. <sup>2</sup>BMI may be inaccurate if person has muscle wasting. If BMI is >30, assume at risk waist circumference. <sup>3</sup>Higher HbA1c levels (e.g. <8.0%, (64 mmol/mol)) are to detect or treat hypoglycaemia, the elderly, or those with reduced life expectancy. <sup>4</sup>Weight gain in first 3 months should be <5 kg (or ≤7% from baseline); <sup>5</sup>In people with dietary insufficiencies consider checking folate and Vit B12. \*Consider referral



## POSITIVE CARDIOMETABOLIC HEALTH FOR ADULTS WITH AN INTELLECTUAL DISABILITY: an early intervention framework

### ADAPT YOUR PRACTICE while addressing **STANDARD TARGETS**<sup>1</sup>

Plan for: communication adjustments; engagement with support networks; extra time; consent; teamwork.

Activity	Diet, lifestyle weight/waist	Socioeconomic resources	Blood pressure	Glucose regulation	Fasting blood lipids	Psychotropic prescription
<ul style="list-style-type: none"> <li>» 150 minutes moderate intensity exercise per week (e.g. 30 minutes 5 days per week)</li> <li>» Reduce sedentary behaviour</li> </ul>	<ul style="list-style-type: none"> <li>» Non-smoker, balanced diet, minimise alcohol and other drug use</li> <li>» BMI<sup>2</sup>: 18.5 – 24.9 kg/m<sup>2</sup></li> <li>» Waist circumference: &lt;94 cm males, &lt;80 cm females</li> </ul>	<ul style="list-style-type: none"> <li>» Socioeconomic status is associated with cardiometabolic health.</li> <li>» Ensure adequate access to housing, healthcare, transportation, education and employment opportunities</li> </ul>	<ul style="list-style-type: none"> <li>» For most: &lt;140 mmHg systolic and &lt;90 mmHg diastolic</li> <li>» For people with diabetes, chronic kidney disease or vascular disease: &lt;130/80 mmHg</li> </ul>	<ul style="list-style-type: none"> <li>» FPG target: &lt;5.5 mmol/L</li> <li>» Individualise HbA1c targets for people with diabetes, generally &lt;7% (53 mmol/mol)<sup>3</sup></li> <li>» For aversion to venepuncture see over</li> </ul>	<ul style="list-style-type: none"> <li>» TChol ≤5.5 mmol/L</li> <li>» LDL ≤4 mmol/L</li> <li>» For people with high CV risk (e.g. diabetes, hypertension, chronic kidney disease and prior heart disease): consider LDL ≤2 mmol/L</li> <li>» Trig ≤1.6 mmol/L</li> </ul>	<ul style="list-style-type: none"> <li>» Evidence based prescription to treat symptoms of defined mental illness and/or when challenging behaviours are severe and non-responsive to other interventions</li> <li>» Minimum effective dose and length of treatment<sup>4</sup></li> </ul>

### Any values outside of target range: **DON'T JUST SCREEN – INTERVENE**

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If arranging multidisciplinary follow-up falls outside your practice scope make appropriate referrals to the person's GP and ensure proactive follow-up.

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For Mental Health interventions consider using a **Mental Health Treatment Plan** (MBS items: 2700, 2701, 2715 or 2717) and referral to a psychiatrist and/or psychologist.

<ul style="list-style-type: none"> <li>» Provide a tailored <b>exercise</b> prescription and account for any co-existing physical impairments*</li> <li>» Consider referral to <b>exercise physiologist</b> (MBS item: 10953) or <b>physiotherapist</b> (MBS item: 10960)</li> </ul>	<ul style="list-style-type: none"> <li>» Consider referral to <b>dietitian</b> (MBS item: 10954); <b>exercise physiologist</b> (MBS item: 10953); <b>physiotherapist</b> (MBS item: 10960); <b>occupational therapist</b> (MBS item: 10958)<sup>5</sup></li> <li>» Referral to smoking or D&amp;A cessation program</li> </ul>	<ul style="list-style-type: none"> <li>» Include social worker in multidisciplinary case conference (MBS items: 735 – 758). If the person has a diagnosed mental illness they can also receive individual <b>social worker</b> sessions (MBS item: 80150)</li> <li>» Referral to disability support services</li> </ul>	<ul style="list-style-type: none"> <li>» Consider antihypertensive therapy if lifestyle intervention alone is insufficient*</li> <li>» Limit salt in diet</li> <li>» Education about <b>blood pressure</b> management</li> </ul>	<ul style="list-style-type: none"> <li>» Tailor <b>diabetes</b> education/ intervention (<b>diabetes educator</b> (MBS item: 10951))</li> <li>» <b>DIABETES:</b> FPG ≥7.0 mmol/L; RPG ≥11.1 mmol/L; HbA1c &gt;5.6% (38 mmol/mol) – Endocrine review, monitor HbA1c 3 monthly</li> <li>» <b>AT RISK: 5.6 – 6.9 mmol/L</b> – 6 monthly glucose monitoring, consider metformin if lifestyle intervention insufficient</li> </ul>	<ul style="list-style-type: none"> <li>» Consider Statin if lifestyle intervention alone is insufficient*. Consider in context of absolute risk stratification</li> <li>» Fibrate for triglycerides</li> </ul>	<ul style="list-style-type: none"> <li>» Consider switching, decreasing or discontinuing if metabolic side effects emerge; rationalise any polypharmacy; where possible avoid high metabolic liability medication <b>as first line treatment*</b> (<b>Home medicines</b> review – MBS item: 900); provide <b>psychotropic education</b></li> </ul>
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<sup>1</sup>Certain causes of intellectual disability may alter baseline cardiometabolic risk – see over. <sup>2</sup>BMI may be inaccurate if person has muscle wasting. If BMI is >30, assume at risk waist circumference. <sup>3</sup>Higher HbA1c levels (e.g. <8.0%, (64 mmol/mol)) are acceptable in those with reduced ability to detect or treat hypoglycaemia, the elderly, or those with reduced life expectancy. <sup>4</sup>Weight gain in first 3 months should be <5 kg (or ≤7% from baseline); <sup>5</sup>In people with dietary insufficiencies consider checking folate and Vit B12. \*Consider referral to specialist if additional input required.

# POSITIVE CARDIOMETABOLIC HEALTH FOR ADOLESCENTS WITH AN INTELLECTUAL DISABILITY: an early intervention framework

## ADAPT YOUR PRACTICE while addressing STANDARD TARGETS<sup>1</sup>

Plan for: communication adjustments; engagement with support networks; extra time; consent; teamwork.

Activity	Diet, lifestyle weight/waist	Socioeconomic resources	Blood pressure	Glucose regulation	Fasting blood lipids	Psychotropic prescription
<ul style="list-style-type: none"> <li>» Physical activity: (e.g. &gt;60 mins per day)</li> <li>» Screen-based activities: &lt;2 hrs per day</li> </ul>	<ul style="list-style-type: none"> <li>» Non-smoker, balanced diet, no alcohol or other drug use</li> <li>» BMI<sup>2</sup>: ≤85th centile</li> <li>» Waist: height ratio: &lt;0.5</li> </ul>	<ul style="list-style-type: none"> <li>» Socioeconomic status is associated with cardiometabolic health</li> <li>» Ensure adequate access to housing, healthcare, transportation, education and employment opportunities</li> </ul>	<ul style="list-style-type: none"> <li>» &lt;90th centile</li> <li>» Use appropriate cuff size for arm circumference</li> </ul>	<ul style="list-style-type: none"> <li>» For most: FPG ≤5.5 mmol/L; HbA1c &lt;42 mmol/mol (6.0%)</li> <li>» For people with diabetes: HbA1c &lt;58 mmol/mol (7.5%)</li> <li>» For aversion to venepuncture see over</li> </ul>	<ul style="list-style-type: none"> <li>» Total Chol &lt;4.4 mmol/L</li> <li>» LDL &lt;2.85 mmol/L</li> <li>» HDL &gt;1.56 mmol/L</li> <li>» Trig &lt;1.02 mmol/L</li> </ul>	<ul style="list-style-type: none"> <li>» Evidence based prescription to treat symptoms of defined mental illness and/or when challenging behaviours are severe and non-responsive to other interventions</li> <li>» Minimum effective dose and length of treatment<sup>3</sup></li> </ul>

## Any values outside of target range: DON'T JUST SCREEN – INTERVENE

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## Using a person-centred approach PROVIDE TAILORED LIFESTYLE & NUTRITIONAL INTERVENTIONS:

If arranging multidisciplinary follow-up falls outside your practice scope make appropriate referrals to the person's GP and ensure proactive follow-up.

For physical health interventions create a [GP Management Plan](#) (MBS item: 721) and a [Team Care Co-ordination Plan](#) (MBS item: 723).

For Mental Health interventions consider using a [Mental Health Treatment Plan](#) (MBS items: 2700, 2701, 2715 or 2717) and referral to a psychiatrist and/or psychologist.

<ul style="list-style-type: none"> <li>» ↓ sedentariness; ↓ screen time; ↑ physical activity; Account for any co-existing physical impairments*</li> <li>» Consider referral to <a href="#">exercise physiologist</a> (MBS item: 10953) or <a href="#">physiotherapist</a> (MBS item: 10960)</li> </ul>	<ul style="list-style-type: none"> <li>» ↓ energy intake; stop soft drinks/juices; ↑ vegetables and fibre</li> <li>» Consider referral to <a href="#">dietitian</a> (MBS item: 10954); <a href="#">exercise physiologist</a> (MBS item: 10953); <a href="#">physiotherapist</a> (MBS item: 10960); <a href="#">occupational therapist</a> (MBS item: 10958)<sup>4</sup></li> <li>» Referral to smoking or D&amp;A cessation program</li> </ul>	<ul style="list-style-type: none"> <li>» Include social worker in multidisciplinary case conference (MBS items: 735 – 758). If the person has a diagnosed mental illness they can also receive individual <a href="#">social worker</a> sessions (MBS item: 80150)</li> <li>» Referral to disability support services</li> </ul>	<ul style="list-style-type: none"> <li>» Consider antihypertensive therapy if lifestyle intervention alone is insufficient*</li> <li>» Limit salt in diet</li> <li>» Education about <a href="#">blood pressure</a> management</li> </ul>	<ul style="list-style-type: none"> <li>» <a href="#">Diabetes educator</a> (MBS item: 10951) <b>AT RISK: FPG 5.6 – 6.9 mmol/L; HbA1c 42 – 47 mmol/mol (6.0 – 6.4%); OGTT;</b> if abnormal refer to specialist. Consider metformin if lifestyle intervention insufficient. <b>DIABETES: FPG ≥7.0 mmol/L, RPG ≥11.1 mmol/L, HbA1c ≥48 mmol/mol</b> Endocrine review</li> </ul>	<ul style="list-style-type: none"> <li>» Referral to paediatrician to consider Statin if lifestyle intervention alone is insufficient*</li> <li>» Fibrate for triglycerides</li> </ul>	<ul style="list-style-type: none"> <li>» Consider switching, decreasing or discontinuing if metabolic side effects emerge; rationalise any polypharmacy; where possible avoid high metabolic liability medication <b>as first line treatment*</b> (<a href="#">Home medicines review</a> – MBS item: 900); provide <a href="#">psychotropic education</a></li> </ul>
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<sup>1</sup>Certain causes of intellectual disability may alter baseline cardiometabolic risk. <sup>2</sup>BMI may be inaccurate if person has muscle wasting caused by physical disability or an inability to stand upright. If BMI is >30, assume at risk waist circumference.

<sup>3</sup>Weight gain in first 3 months should be <5 kg (or ≤7% from baseline). <sup>4</sup>In people with dietary insufficiencies consider checking folate and Vit B12. \*Consider referral to specialist if additional input required.



**Monitoring:** Annual cardiometabolic monitoring should occur for all people with intellectual disability.

**If psychotropic medication (excluding stimulants) is commenced please use the following schedule:**

*Note: more frequent monitoring should occur if clinically indicated. Some medications such as dozapine have additional monitoring requirements. Consider ECG/cardiology review if concern re. QT prolongation or cardiovascular risk factors present.*

	Baseline	Weekly for first 6 weeks	3 months	6 months	9 months	Annually
Family Hx (diabetes, obesity, CVD in first degree relatives, kidney disease)	✓					✓
Personal and medication Hx (cause of ID, polycystic ovary syndrome, past psychotropic medication use – dose, efficacy and side effects, current medications)	✓					✓
Lifestyle review (smoking, alcohol, physical activity, diet)	✓		✓	✓	✓	✓
Weight/Waist circumference	✓	✓	✓	✓	✓	✓
Other examinations (BMI, BP, pulse)	✓		✓			✓
Fasting lipids and glucose	✓		✓	✓		✓
HbA1c	✓					✓*

\*In people with well-controlled diabetes, HbA1c could be performed 3–6 monthly.

Certain genetic causes of intellectual disability may alter the person's cardiometabolic profile. It is important to identify the cause of ID where possible and to proactively manage individuals at risk to prevent further complications. Syndromes with cardiometabolic risk factors include:

Syndrome	Diabetes mellitus	Hypertension	Hypotension	Obesity	Dyslipidaemia
Down	✓		✓	✓	✓
Turner	✓	✓		✓	✓
Tuberous sclerosis		✓			
Williams		✓			
Angelman				✓	
Sotos	✓	✓			
Prader-Willi	✓	✓		✓	✓

Adapted from: Wallace, R. A. (2004). "Risk factors for coronary artery disease among individuals with rare syndrome intellectual disabilities." *Journal of Policy and Practice in Intellectual Disabilities* 1(1): 42–51.

## Problem solving fear or refusal of blood tests

- ▶ Tailor communication about blood test rationale and procedure. Accessible information can be downloaded [here](#).
- ▶ Involve the person's support networks. Having someone familiar attend the blood test may make the person feel more at ease.
- ▶ Behavioural support staff may be able to conduct rehearsal prior to the appointment.
- ▶ Have the family or support worker call ahead and explain the situation to the pathologist. Ask if there is a pathologist who has experience working with people with ID.
- ▶ Request an anaesthetic cream or patch.
- ▶ If needed, consider single dose prn benzodiazepam prior to blood test.
- ▶ If obtaining a fasting sample is too hard, non-fasting samples are satisfactory for most measures excluding triglycerides.
- ▶ Clarify and obtain consent. If necessary consider requesting a blood test while the person is under general anaesthetic for another procedure.

## Specific pharmacological interventions

- ▶ Consider metformin if: impaired glucose; polycystic ovary syndrome; obesity or rapid weight gain.
- ▶ **Metformin therapy:** start at 250 mg tablet before breakfast and dinner for two weeks then increase to 500 mg bid. Dose can be increased to a maximum of 3 g daily in diabetes or pre-diabetes. For off-label use in obesity and pre-diabetes, consent should be obtained. Side effects of nausea, diarrhoea or abdominal cramps should not be tolerated and dose shifted to after meals and/or reduced (or shift to the XR preparation).
- ▶ **Lipid lowering therapy:** use PBS guidelines. Statin initiation for cholesterol lowering: simvastatin 10 mg nocte; atorvastatin 10mg nocte; pravastatin 10 mg nocte; rosuvastatin 10 mg nocte.
- ▶ **Antihypertensive therapy:** multiple agents available.
- ▶ **Vitamin D:** glucose metabolism, bone and muscle health may all be impacted by Vit D deficiency. For people at **high risk of Vit D deficiency** (for example due to anticonvulsants, residential status) monitor Vit D levels. <50 nmol/L: replenish stores: cholecalciferol 4,000 IU per day for one month. Maintenance: 1,000 IU. Target > 80 nmol/L.



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*Note: more frequent monitoring should occur if clinically indicated. Some medications such as clozapine have additional monitoring requirements. Consider ECG/cardiology review if concern re. QT prolongation or cardiovascular risk factors present.*

	Baseline	Weekly for first 6 weeks	3 months	6 months	9 months	Annually
Family Hx (diabetes, obesity, CVD in first degree relatives, kidney disease)	✓					✓
Personal and medication Hx (cause of ID, polycystic ovary syndrome, past psychotropic medication use – dose, efficacy and side effects, current medications)	✓					✓
Lifestyle review (smoking, alcohol, physical activity, diet)	✓		✓	✓	✓	✓
Weight/Waist circumference	✓	✓	✓	✓	✓	✓
Other examinations (BMI, BP, pulse)	✓		✓			✓
Fasting lipids and glucose	✓		✓	✓		✓
HbA1c	✓					✓*

\*In people with well-controlled diabetes, HbA1c could be performed 3–6 monthly.

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Syndrome	Diabetes mellitus	Hypertension	Hypotension	Obesity	Dyslipidaemia
Down	✓		✓	✓	✓
Turner	✓	✓		✓	✓
Tuberous sclerosis		✓			
Williams		✓			
Angelman				✓	
Sotos	✓	✓			
Prader-Willi	✓	✓		✓	✓

Adapted from: Wallace, R. A. (2004). "Risk factors for coronary artery disease among individuals with rare syndrome intellectual disabilities." *Journal of Policy and Practice in Intellectual Disabilities* 1(1): 42–51.

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- ▶ If obtaining a fasting sample is too hard, non-fasting samples are satisfactory for most measures excluding triglycerides.
- ▶ Clarify and obtain consent. If necessary consider requesting a blood test while the person is under general anaesthetic for another procedure.

## Specific pharmacological interventions

- ▶ Consider metformin if: impaired glucose; polycystic ovary syndrome; obesity or rapid weight gain.
- ▶ **Metformin therapy:** start at 250 mg tablet before breakfast and dinner for two weeks then increase to 500 mg bid. Dose can be increased to a maximum of 3 g daily in diabetes or pre-diabetes. For off-label use in obesity and pre-diabetes, consent should be obtained. Side effects of nausea, diarrhoea or abdominal cramps should not be tolerated and dose shifted to after meals and/or reduced (or shift to the XR preparation).
- ▶ **Lipid lowering therapy:** use PBS guidelines. Statin initiation for cholesterol lowering: simvastatin 10 mg nocte; atorvastatin 10mg nocte; pravastatin 10 mg nocte; rosuvastatin 10 mg nocte.
- ▶ **Antihypertensive therapy:** multiple agents available.
- ▶ **Vitamin D:** glucose metabolism, bone and muscle health may all be impacted by Vit D deficiency. For people at **high risk of Vit D deficiency** (for example due to anticonvulsants, residential status) monitor Vit D levels. <50 nmol/L: replenish stores: cholecalciferol 4,000 IU per day for one month. Maintenance: 1,000 IU. Target > 80 nmol/L.



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# For People with an Intellectual Disability

## Positive cardiometabolic health for people with an intellectual disability: an early intervention framework

Dear Health Professional,

Here is a link to a **free suite of cardiometabolic resources** to help improve health in your patients with an intellectual disability:



<https://3dn.unsw.edu.au/positive-cardiometabolic-health-ID>

People with an intellectual disability have poorer health outcomes than the general population and an over-representation of specific cardiometabolic risk factors.

### The cardiometabolic resources available include:

- » An early intervention guideline that identifies intellectual disability-specific cardiometabolic risk areas and target values, monitoring schedules, intervention strategies, and tips for overcoming common monitoring problems such as a fear of blood tests.
- » A toolkit of free cardiometabolic resources for people with an intellectual disability and their carers that you can print off and share with your patients.



This postcard was adapted with permission from the Lester UK positive health resource card. This postcard was funded by NSW Health.



B12644

# For Family and other Carers

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E12644



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the Australian College of Mental Health Nurses Inc.



Australian College of Nursing



Tuberous Sclerosis Australia



pwsa

prader-willi syndrome association

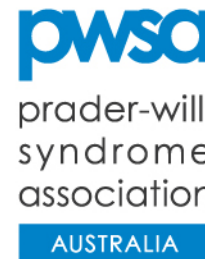
AUSTRALIA



Endorsed Educational Program



Council for Intellectual Disability



ACI Intellectual Disability Network

The “Positive Cardiometabolic Health for People with an Intellectual Disability: an Early Intervention Framework” has been officially recognised as an accepted clinical resource by The Royal Australian College of General Practitioners



# Who developed the resources?



Steering Committee Member	Position
Prof Julian Trollor	Head, Department of Developmental Disability Neuropsychiatry Chair, Intellectual Disability Mental Health Professor, School of Psychiatry, UNSW Medicine
Dr Carmela Salomon	Project Officer, Department of Developmental Disability Neuropsychiatry
Dr Jackie Curtis	Clinical Director of Youth Mental Health, SESLHD; Lead of the Bondi Early Psychosis Program; Conjoint Senior Lecturer, School of Psychiatry, UNSW Medicine
Prof Katherine Samaras	Professor of Medicine, UNSW Australia; Senior Staff Specialist, Dep of Endocrinology St Vincent's Hospital; Laboratory Head, Adipose Biology Diabetes and Metabolism Division, Garvan Institute of Medical Research; Director and Founder Australian Centre for Metabolic Health, St Vincent's Campus
A/Prof Philip Ward	Associate Professor, School of Psychiatry, UNSW Medicine; Director of Schizophrenia Research Institute, Liverpool Hospital
Dr Simon Rosenbaum	Lecturer, School of Medical Sciences, UNSW Medicine; National Director of Exercise and Sports Science Australia
Mr Andrew Watkins	Clinical Nurse Consultant, Keeping the Body in Mind, SESLHD

# How do you use the resources?



- Panel 1: Practical application of the framework
- Panel 2: Clinical approaches to managing risk
- Access the 3DN website:  
<https://3dn.unsw.edu.au/positive-cardiometabolic-health-ID>
- Opportunities:
  - Incorporation onto clinical care pathways