

**Supplementary Material**

**A critical realist exploration of factors influencing engagement in diabetes prevention programs in rural settings**

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**Supplementary Table S1.** Themes and subthemes from inductive analysis of interviews about engagement with prediabetes programs

Themes	Subthemes
Medical	<ul style="list-style-type: none"> <li>Non-modifiable risk factors</li> <li>Negative impacts of the disease</li> <li>Under-diagnosis</li> <li>Prevention can reduce the economic burden</li> <li>There are many health benefits from participating in a program</li> </ul>
Lifestyle modifications	<ul style="list-style-type: none"> <li>Time constraints</li> <li>Affordability</li> <li>Lifestyle change is hard and overwhelming</li> <li>Not feeling supported to make lifestyle changes</li> <li>Lifestyle change attempts have been made</li> <li>Quality of life is a lifestyle change motivator</li> <li>Weight loss is a goal and motivator</li> </ul>
Program and service delivery	<ul style="list-style-type: none"> <li>Limited information and guidance from health professionals</li> <li>Perception that health professionals think diabetes is inevitable</li> <li>Doctors don't allow enough time to discuss prevention</li> <li>Health professionals need to inform and refer</li> <li>Person-centered approach</li> <li>Interested in diabetes prevention programs</li> <li>Supported by a health professional to make lifestyle changes</li> <li>Encouraged to see a dietitian or exercise physiologist</li> </ul>
Knowledge and understanding of prediabetes	<ul style="list-style-type: none"> <li>Limited understanding of prediabetes and how to manage it</li> <li>Shock about diagnosis of prediabetes</li> <li>Range of knowledge and confidence levels about "how to handle it"</li> <li>Different levels of awareness about where to source information</li> <li>Desire to avoid "becoming diabetic". Prediabetes is a warning</li> <li>Knowledge that diabetes can be prevented through lifestyle changes</li> <li>Seeking out health information online</li> <li>Seeking information from a doctor or health professional</li> </ul>
Structured ways to make change	<ul style="list-style-type: none"> <li>Low awareness of the Get Healthy service</li> <li>Have not heard of, or been referred to specific lifestyle programs</li> <li>Programs should be incentivised</li> <li>Flexibility is important in lifestyle programs</li> <li>Promoting programs on social media is important</li> </ul>
Program design	<ul style="list-style-type: none"> <li>Cost</li> <li>Distance</li> <li>Face-to-face and online options</li> <li>Programs that involve practical learnings around food/diet</li> <li>Flexibility</li> <li>Assistance with enrolment</li> </ul>

Support for weight loss/exercise

Support with adherence



### Interview Guide (People with Prediabetes)

Topic/aim	Question	Follow-up prompts
General information/build rapport	Before we jump into more specific questions, can you introduce yourself and tell me about what made you interested in taking part in this study?	That's perfect because this research is about how we can better meet the needs of people with prediabetes, in the hope that it does not progress to diabetes, and how service can work together.
Diagnosis of prediabetes	Now, I'd like to ask you a few questions about prediabetes.  First of all can you tell me what you recall about being diagnosed with prediabetes? What was that like for you?  In what ways was life different for you before your diagnosis, compared to now?	-How were you diagnosed? -What was your reaction? -What information were you given? -How did your life change after the diagnosis? -What was your life like before your diagnosis? -How did the diagnosis make you feel? -What management strategies were you offered to you? -Describe any lifestyle changes you have made since being diagnosed. -Are there any other changes you would like to make? -If they are referred to a HP e.g. Dietitian, Ex phys, ask if it was through a care plan etc.
Knowledge of prediabetes	What is your understanding of why you were diagnosed with prediabetes?  What do you understand a diagnosis of prediabetes to mean?	What do you see as differences between prediabetes and diabetes?  What is your understanding of diabetes prevention?
Awareness of preventative diabetes programs	What types of lifestyle programs are you aware of that assist with preventing Type 2 Diabetes?  Was there any particular reason that you used that information source?	-How did you find out about these programs? -Were you aware of these programs prior to being diagnosed? -If you wanted to find out more about health programs or health information where would you turn to get more information? -Who do you talk to get information about your health? -Why do you turn to this source of information/person? -If there are programs available to access, do you have any suggestions why you and others with prediabetes are not made aware of them? -What do you think could be done to increase awareness of these programs?

<p>How preventative programs are explained and pitched</p>	<p>Have you ever been referred to a health program? If so, describe this experience?</p> <p>Do you think it is important that people are referred to lifestyle programs?</p> <p>Why do you think you haven't been referred?</p> <p>If you were referred would you have participated in the program? Why/Why not?</p> <p>I know you haven't been referred before, but if you were to be, when do you think you would be most ready or interested in a program? Do you think this would be when you first found out about prediabetes that it would be helpful to be referred, or a bit later in the process once you have had time to learn more about it?</p> <p>What do you think could improve the referral process?</p> <p>What would encourage you or make it easy for you to enrol in a program? (E.g. doctor/care plan nurse completes the enrolment/you do the enrolment online at home etc, someone calls you to enrol you)</p>	<p>-Who referred you?</p> <p>-How were the programs presented?</p> <p>-What was your reaction to the referral?</p> <p>-Have you considered enrolling in the program?</p> <p>-Were there any difficulties experienced in this process?</p> <p>-What type of program would you want to participate in and why?</p> <p>-What would you want from the program? (What topics/information would you find helpful?)</p> <p>-Once you've been enrolled, what would make it easier for you to participate?</p> <p>-If you had have participated in a program for 12 months, how would things be different for you?</p>
<p>Perceptions and attitudes towards preventative diabetes programs</p>	<p>What are your thoughts on participating in a diabetes prevention program?</p>	<p>-What do you see as the benefits of participating in a health program, how would it benefit you?</p> <p>-Describe why you would not participate?</p> <p>-Since your prediabetes diagnosis, has anyone encouraged you to participate in a health program or make lifestyle changes? Has this influenced your thoughts on engaging in a program?</p>
<p>Readiness to change and willingness to adopt lifestyle modifications</p>	<p>What motivates you to change your lifestyle?</p>	<p>-What is the hardest thing about changing your lifestyle?</p> <p>-Do you feel supported to make lifestyle changes? In what ways?</p>
<p>Perceptions of barriers and enablers to preventative program engagement</p>	<p>-Do you plan on enrolling in a health program in the future? Why/why not?</p>	<p>-What strategies would you recommend that would make it easier for people who have prediabetes to access diabetes prevention programs?</p>
<p>Final thoughts/comments</p>	<p>Before we wrap things up, have you got any final thoughts or comments that you would like to add? Or any questions?</p>	