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## Using genetics to inform dietary interventions for cardiovascular disease: ‘a piece of the puzzle’

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Emerging research has highlighted a relationship between diet and genetics, suggesting that individuals may benefit more from personalised dietary recommendations based on their genetic risk for cardiovascular disease (CVD)<sup>(1,2)</sup>. This current study aims to: (1) Measure knowledge of genetics among healthcare professionals (HCPs) working in CVD, (2) Identify HCPs' attitudes to using genetic risk to tailor dietary interventions, and (3) Identify perceived barriers and enablers to implementing genetics to tailor dietary interventions. In a mixed-methods study, Australian HCPs (dietitians and AHPRA registered healthcare professionals) working with people with CVD were invited to complete an anonymous online survey (REDCap) and an optional interview. Recruitment occurred through social media and relevant professional organisations. Survey questions were underpinned by the theoretical domains framework<sup>(3)</sup> and data was synthesised descriptively. Semi-structured interviews were undertaken via Zoom. Interview responses were analysed using a thematic analysis approach using Braun & Clarke methodology<sup>(4)</sup>. Survey responders (n = 63, 89% female, mean age 42 ± 14 years) were primarily dietitians (83%), with ≥ 10 years of experience (56%) and spent at least 20% of their time working with people with CVD (n = 55, 87%). Approximately half of respondents were aware that genetic testing for CVD exists (n = 36) and always assess family history of CVD (n = 31). Few respondents reported using genetic testing (n = 5, 8%) or felt confident interpreting and using genetic testing (n = 7, 11%) in practice. Respondents were interested in incorporating genetics into their practice to tailor dietary advice (n = 44, 70%). Primary barriers to using genetic testing included financial costs to patients and negative implications for some patients. Almost all respondents agreed genetic testing will allow for more targeted and personalised approaches for prevention and management of CVD (94%). From the interviews (n = 15, 87% female, 43 ± 17 years, 87% dietitian), three themes were identified: (1) ‘On the periphery of care’—HCPs are aware of the role of genetics in health and are interested in knowing more, but it is not yet part of usual practice; (2) ‘A piece of the puzzle’—using genetic testing could be a tool to help personalise, prioritise and motivate participants; and (3) ‘Whose role is it?’—There is uncertainty regarding HCP roles and knowing exactly whose role it is to educate patients. Healthcare professionals are interested in using genetics to tailor dietary advice for CVD, but potential implications for patients need to be considered. Upskilling is required to increase their knowledge and confidence in this area. Further clarity regarding HCP roles in patient education is needed before this can be implemented in practice.

### References

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