A capacity building initiative to develop research leadership and knowledge transfer between India and Australia as part of a study examining the effect of a dietary prebiotic in people living with HIV.
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As part of a randomised controlled trial (RCT) examining the effect of dietary resistant starch supplementation in HIV-positive patients in India, a Food Frequency Questionnaire (FFQ) tool was adapted for use in the study cohort. Based on the original FFQ, which had been validated for use in South India, the adapted version was re-designed for residents of Odisha state. In a research partnership between institutes in India and Australia, a capacity building initiative was implemented to enable the expansion of technical skills in dietary assessment to validate this tool and contribute to the study aims of: determining proof of principle for resistant starch fermentation; examining any adverse health effects; and determining effect size to inform future RCTs. The use of volumetric tools to assist in the estimate of dietary intake is typically used to accurately determine dietary composition of macro-/micro-nutrients and other dietary components, including resistant starch. Such methods are field-friendly and remove the need for weighed food records or dietary intake observation. The dietary assessment methods required for the validation process were FFQ and 24-hour dietary recall. Using adult-learning principles, the first capacity building module was delivered by the Principal Investigator, a qualified dietitian from the Australian team, to research assistants from the Indian team. This first module facilitated the identification of typically used serving vessels in different regions of India (North-East and South-East). The agreed vessels (cup, bowl, spoon and glass) were then measured for volume in millilitres of water. This enables accurate estimates of portion size. Members of the Indian team then administered the two tools to study participants, using the standardised measures. A second module will be developed in partnership by the two teams to expand skills in the method for dietary composition analysis as well as validation of the FFQ against the 24-hour dietary recall data. To determine effect size based on dietary intake of resistant starch, it is important that team members have mechanisms for ensuring consistency in methodology. Standardisation of measures ensures that multi-centre RCTs and those managed remotely such as the HIV study described above, will have improved accuracy in dietary assessment.