

Obesity Interventions in Hispanic Americans Across the Lifespan: a systematic review using the RE-AIM framework

Caitlin Gerdes,¹ Diego Renteria,¹ Tzeyu Michaud,² Fabiana Silva,² and Paul Estabrooks,²
University of Nebraska Medical Center, Omaha, NE

Background & Purpose

Background:

- According to national data, Hispanic populations in the United States are disproportionately affected by obesity at high rates (25.2% in children, 44.8% in adults, and 31% in elderly Hispanics).
- The high prevalence of obesity among Hispanic populations is concerning because obesity leads to higher levels of blood pressure, LDL cholesterol, triglycerides, blood sugar, and inflammation. Over time these conditions can cause diabetes, heart disease, and stroke.
- In efforts to address health disparities, obesity treatment interventions have been enacted in many Hispanic communities.
- It is unclear the degree to which these interventions can be disseminated and implemented broadly.
- Understanding how well current literature generalizes to the Hispanic population and community is necessary to provide a foundation for broad uptake of the interventions.

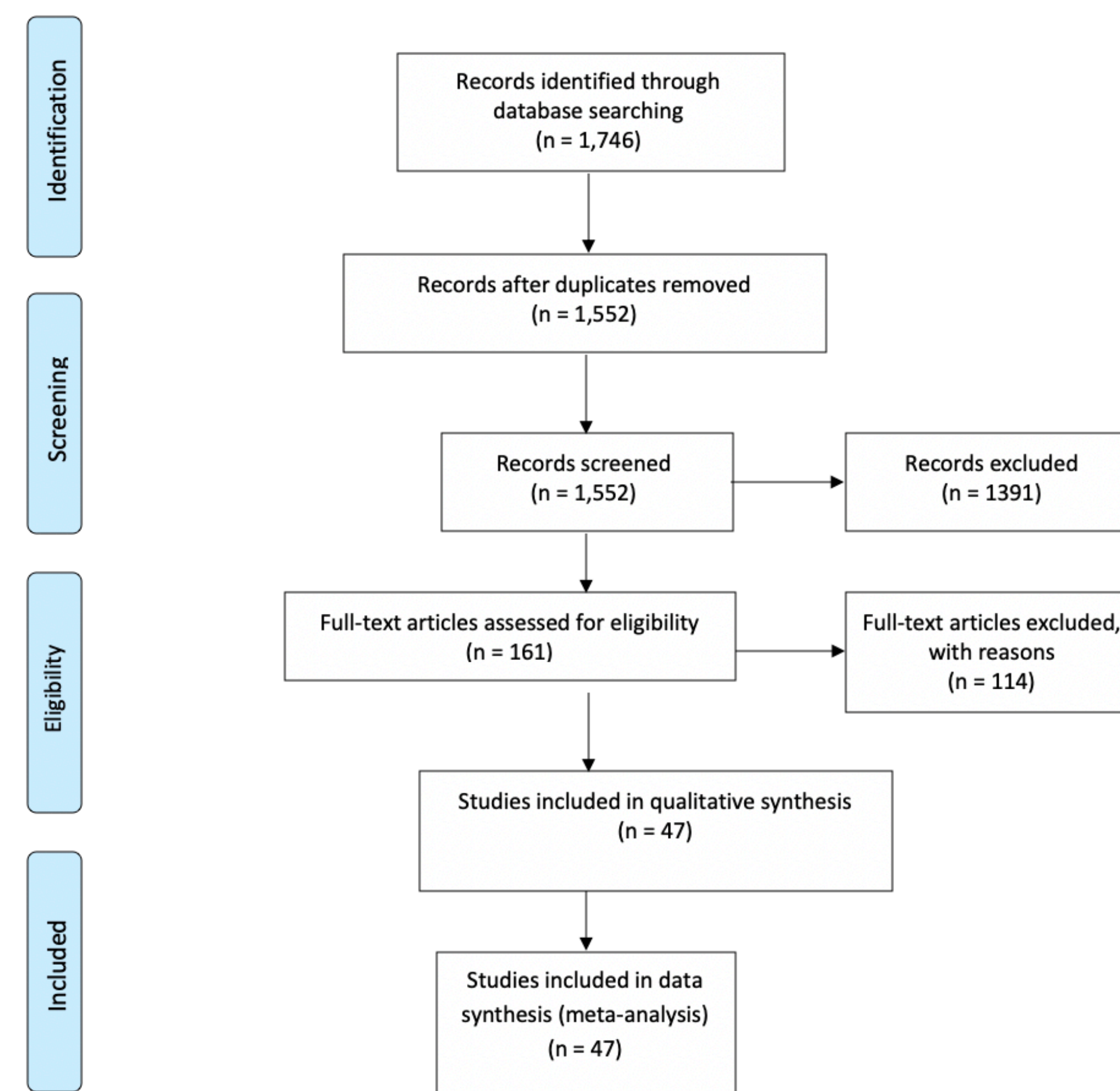
Purpose:

- The purpose of this systematic review was to analyze the current body of evidence that exists for obesity interventions in Hispanic populations. We did this primarily by focusing on aspects of the RE-AIM framework to determine the potential impact of these obesity interventions when implemented in the real-world.

Methods

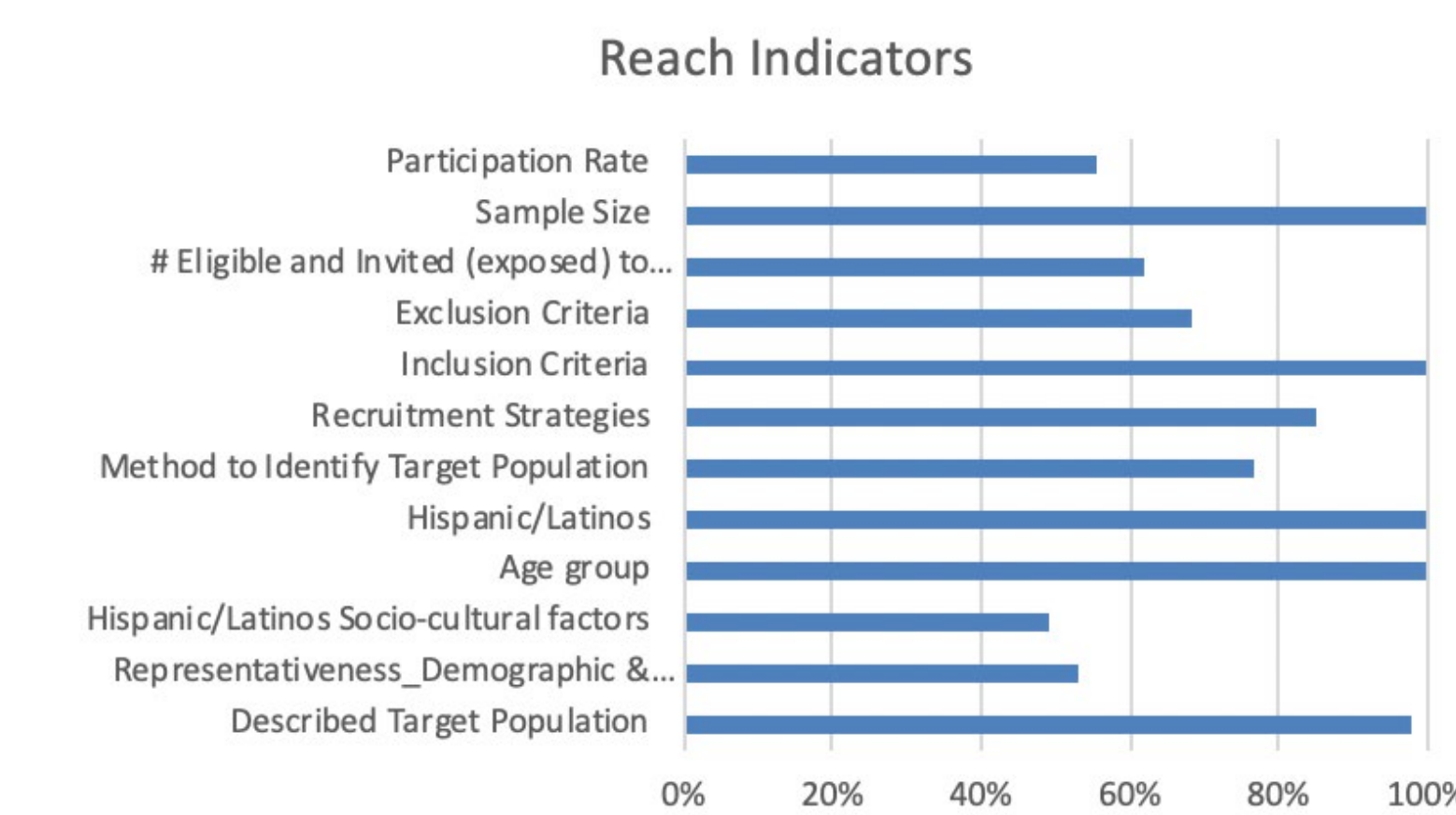
- Conducted a systematic review using the PRISMA protocol and RE-AIM framework

- PubMed database
- Inclusion Criteria:
 - Hispanic / Latino individuals (50% or more of participants)
 - Overweight or obese individuals in the study BMI ≥ 25 kg/m²
 - Published in peer reviewed journals
 - Use an experimental or quasi-experimental design or pre-post evaluation of weight
 - Published in English,
 - Primary outcomes include measured change in weight / BMI

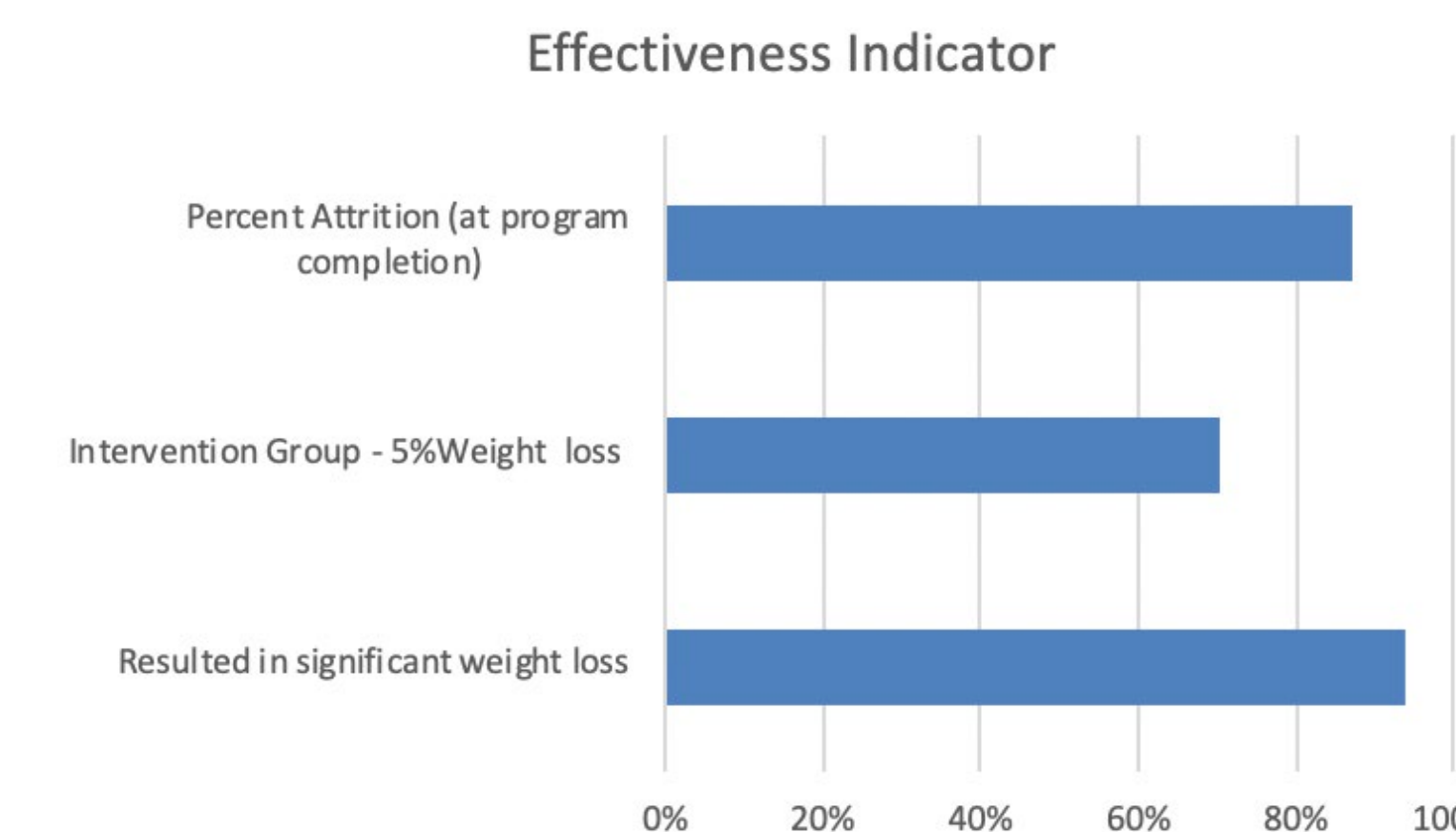


- Exclusion Criteria: weight gain prevention studies, children <5 years old, medication or bariatric surgery study.

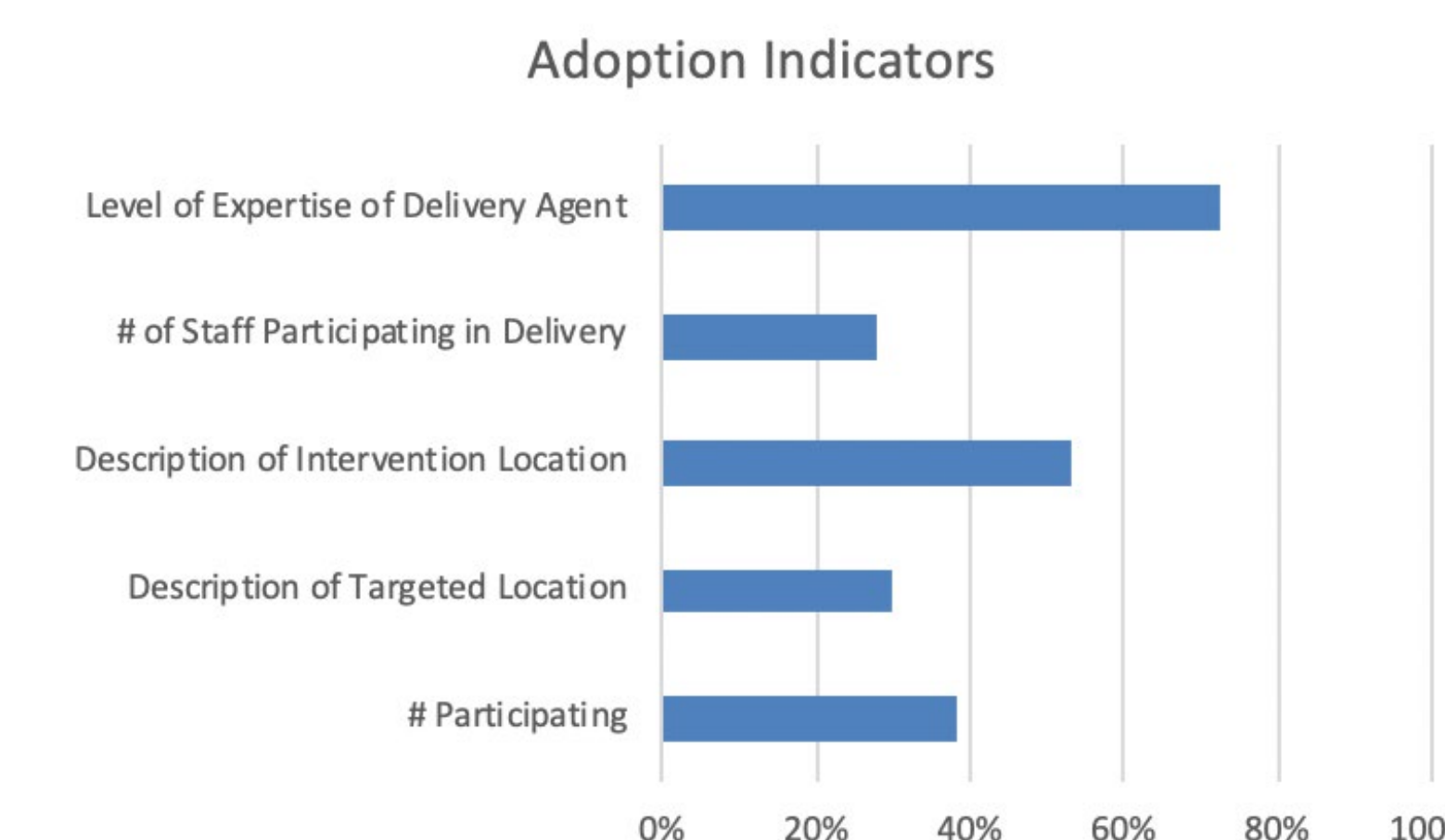
Reach



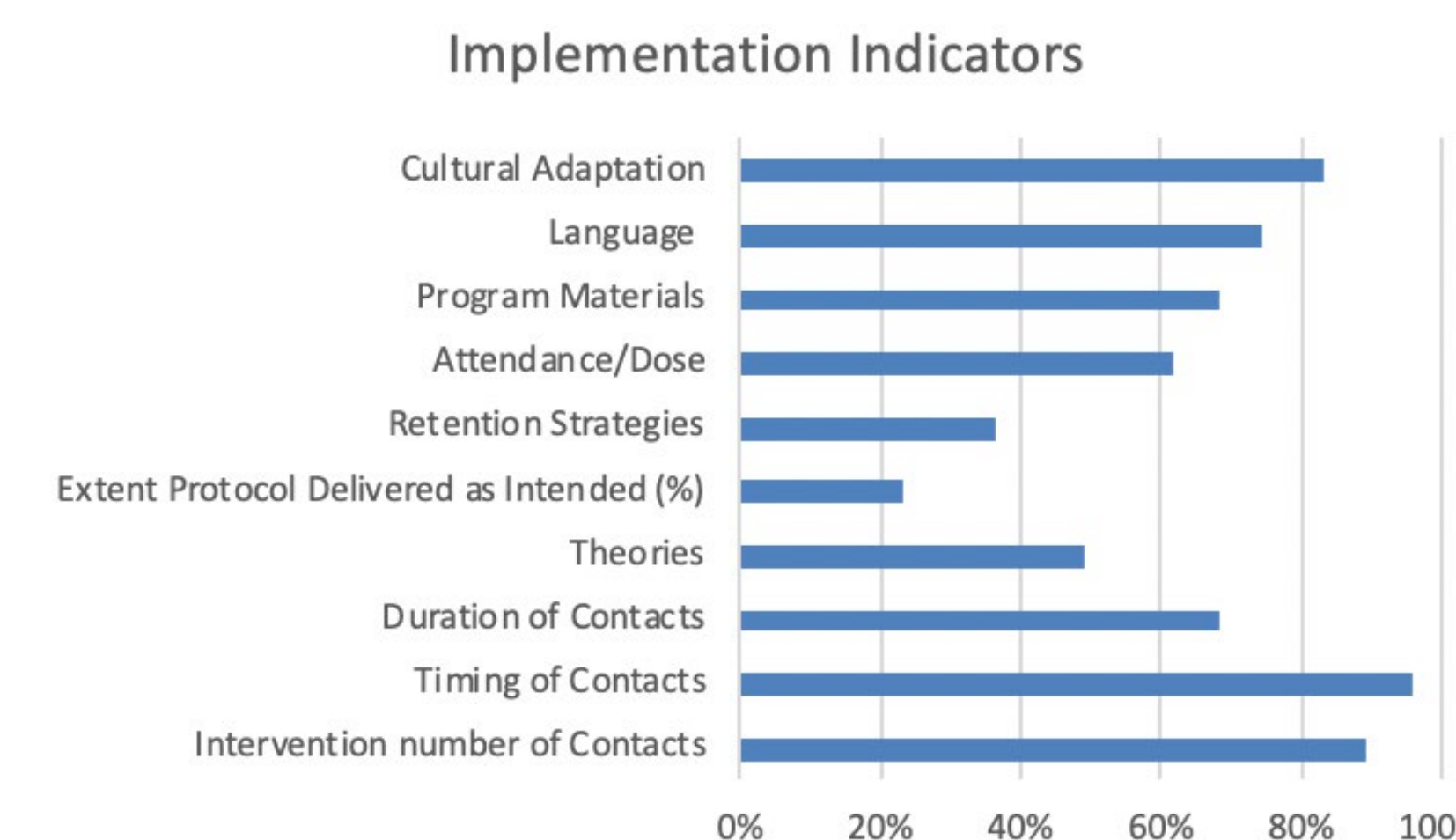
Effectiveness



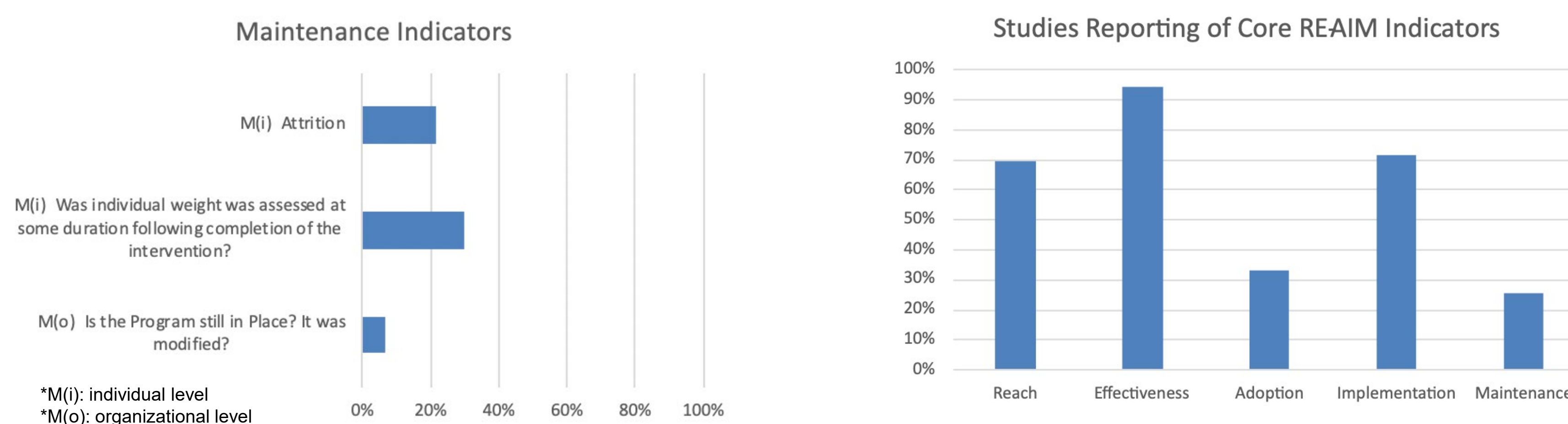
Adoption



Implementation



Maintenance



The degree to which articles reported on dimensions of reach, effectiveness, adoption, implementation, and maintenance varied.

The means for key indicators of each dimension are described below:

- Reach:** The average sample size is 127 participants with a participation rate of 64%.
- Effectiveness:** A total of 70% of studies reported significant weight reduction with an average intervention attrition rate of 29%.
- Adoption:** Only 28% of studies reported the number of staff involved in the intervention and 38% of studies reported the number of sites used to deliver the information.
- Implementation:** The average program duration was 26.6 weeks with a mean of 46.3 contacts per intervention.
- Maintenance:** A total of 30% of studies reported weight changes at follow-up and 86% of those studies show sustained weight loss. The attrition rate at follow-up was 32%.

Discussion

- Most of the studies incorporated cultural adaptations, the most common being culturally adapted diets, involving family support, providing materials in English and Spanish, and delivering the intervention in community settings.
- The locations of the interventions in these studies varied from community, school, home-based, and clinical settings. Staff participation rates were not reported in most of the studies, but staff training and educational background varied in relevance to the interventions.
- The high rates of attrition in these studies (average of 29%) could be introducing bias to the weight loss results reported.
- For most of the studies in our analysis, the delivery agents used for the intervention were community members. Only 8.5% of studies used trained research staff to deliver the intervention. This may indicate that the interventions may be generalizable to typical community providers.
- The adoption and maintenance dimensions were reported at low rates of 45% and 26% respectively. This hinders the external validity of the literature.
- Approximately 86% of studies that measured follow-up weight reported sustained weight loss at follow up. However, the low percentage of studies that reported this measure (30%) could be introducing publication bias to the results.
- Future directions include examining differences in reporting and RE-AIM outcomes of interventions that focus on different aspects of the lifespan.

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