

A Systematic Review of the Nutritional Status of Children Living in Institutionalized Care

Emily DeLacey¹, Cally Tann², Nora Groce³, Maria Kett³, Michael Quiring⁴, Ethan Bergman⁵, Caryl Garcia⁴, and Marko Kerac⁶

¹Holt International; London School of Hygiene and Tropical Medicine; ²Department of Infectious Disease Epidemiology, Faculty of Epidemiology & Population Health, London School of Hygiene & Tropical Medicine; Neonatal Medicine, University College London Hospitals NHS Trust; ³UCL International Disability Research Centre, Department of Epidemiology and Health Care, University College London; ⁴Holt International; ⁵Department of Health Sciences, College of Education and Professional Studies, Central Washington University; and ⁶London School of Hygiene and Tropical Medicine

Objectives: An estimated 2.7 million children live within institutionalized care worldwide. This systematic review aimed to evaluate available data on the nutritional status of children living within institutionalized care.

Methods: Four databases were searched for articles published between January 1990 to January 2019. Studies were eligible for inclusion if they contained information on anthropometry or micronutrient status of children living within institutionalized care. The review is registered on PROSPERO: CRD42019117103.

Results: We screened 3602 titles and reviewed 98 full texts, from which 25 papers were determined eligible. The majority of studies were cross sectional (88%). Low birth weight ranged from 25 to 39%.

Five (20%) studies included information on children with disabilities reporting prevalence from 8 to 75%. Prevalence of undernutrition varied between ages, sites and countries: stunting ranged from 9 to 72%; wasting from 0 to 27%; underweight from 7 to 79%; low BMI from 5 to 27%. Overweight/obesity ranged between 10 to 32% and small head circumference from 17 to 41%. The prevalence of HIV was between 2 to 23% and anemia from 3 to 90%. Skin conditions or infections ranged between 10 to 31% and parasites from 6 to 76%. Institution-based children were more malnourished than community peers and younger children were more malnourished than older children. A high risk of bias was found in the studies.

Conclusions: Addressing the nutrition needs of this underrepresented vulnerable population of children is important in the fight against malnutrition worldwide. Prevention and treatment of poor nutrition in this population can have far reaching impacts but there is limited research on their nutritional status. Children in institutions were commonly malnourished; affected by undernutrition, overnutrition and micronutrient deficiencies. Few studies described disabilities, despite disabilities being common in this population and having a big potential impact on nutritional status. Together, these findings suggest a need for greater focus on prevention and treatment of malnutrition in this population, especially for younger children and children with disabilities. More information is needed to support the millions of children living within institutionalized care to address their rights and needs for healthy development.

Funding Sources: No funding.