

Quantifying the Burden of Malnutrition in Children with Orofacial Clefts

FINAL Report

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Abbreviations and Definitions

Cause A term in GBD study used to describe a cause of death or disability. Causes can generally be thought of as diseases, injuries, syndromes, or other conditions causing mortality and/or morbidity burden in a population.

CGF Child Growth Failure, the collection of stunting, wasting and underweight estimates.

DALY Disability-adjusted life year, a composite measure of disease burden capturing both premature mortality and prevalence/severity of ill health. DALYs are the sum of years of life lost (YLLs) and years lived with disability (YLDs). DALYs are not presented in this report, but are listed here for completeness.

Disability Weight A number between 0 and 1 that measures the burden of living with a disease or other condition. Disability weights are used by GBD to calculate years lived with disability (YLDs).

Excess Deaths A count obtained by subtracting the number of expected deaths from the number of reported deaths; extra deaths that are attributable to the higher rates of underweight status in children with clefts

Excess “X” due to Malnutrition in Cleft The amount by which malnutrition burden (expressed in terms of rate, #, cases, deaths, YLL, YLD, or DALY) observed in a specific population (e.g. those with orofacial clefts) exceed that that is observed in a comparison group (e.g. the general population). Equal to “Total” minus “Expected.”

Expected “X” due to Malnutrition The amount of malnutrition burden (expressed in terms of rate, #, cases, deaths, YLL, YLD, or DALY) observed in the general population estimates from GBD 2020.

GBD Global Burden of Disease injuries, and Risk Factors study.

HAZ Height for age Z score, equal to the number of standard deviations from the median height for age according to WHO child growth standards; also referred to as length for age Z score (LAZ).

IHME Institute for Health Metrics and Evaluation.

PEM Protein-energy malnutrition, the GBD cause of death and disability corresponding to global acute malnutrition (GAM).

Prevalence The total number of cases of unrepaired cleft conditions in a specified population at a designated time. It is differentiated from incidence, which refers to the number of new cases in the population at a given time.

PRR Prevalence rate ratio, calculated by dividing the prevalence of moderate underweight condition in the under-5 population in the Smile Train dataset by the prevalence of moderate underweight condition in the total under-5 population in GBD 2020

Risk Factor A term in GBD study used to describe a modifiable condition (behavioral, environmental/ occupational, or metabolic) where exposure can either increase the likelihood that an individual will develop a new case of another cause of death or disability or increase the risk they will die from another cause of death or disability.

RR Relative risk, describes the ratio of the probability of an outcome in an exposed group to the probability of an outcome in an unexposed group. It measures the association between the exposure and the outcome.

Sequela A condition which is the consequence of a previous disease or injury.

Stunting A condition of impaired linear growth defined according to height for age Z scores (HAZ).

TMREL Theoretical minimum risk exposure level, the exposure level for a risk factor that theoretically minimizes the negative effects of that risk factor.

Total “X” due to Malnutrition in Cleft The amount of observed malnutrition burden (expressed in terms of rate, #, cases, deaths, YLL, YLD, or DALY) estimated from the under-5 population and in the Smile Train dataset. Equal to “Expected” plus “Excess.”

UI Uncertainty interval, describes a range of values that reflects the certainty of an estimate. Larger uncertainty intervals can result from limited data availability, small studies, and conflicting data, while smaller uncertainty intervals can result from extensive data availability, large studies, and data that are consistent across sources.

Underweight A condition of impaired weight gain defined according to weight for age Z scores (WHZ).

Wasting A condition of impaired ponderal growth, often considered synonymous with acute malnutrition, defined according to weight for height Z scores (WHZ).

WHO World Health Organization.

WHZ Weight for height Z score, equal to the number of standard deviations from the median WHZ according to WHO child growth standards; also referred to as weight for length Z score (WLZ).

YLD Year lived with disability, a summary of morbidity, calculated by multiplying the number of years a person lives with a burden-causing condition by the disability weight for that condition.

YLL Year of life lost, a summary measure of mortality, calculated by subtracting the age at death from the global standard life expectancy for a person at that age.