

Multiple Overlapping Deprivation Analysis (MODA)

MODA | HOW TO!

An easy-to-use guide to get you started with multidimensional poverty analysis

Multiple Overlapping Deprivation Analysis (MODA)

WHAT IS MODA?

- MODA is a rights-based **framework** for multidimensional child poverty measurement
- It helps **define** the dimensions of child poverty, **identify** children who are deprived in one or more of these dimensions and **estimate** multidimensional child poverty rates

WHY USE MODA?

- MODA was developed for **children** — the child is the unit of analysis (not the household)
- MODA can be adapted to **any context** — national or cross-country comparative

Multiple Overlapping Deprivation Analysis (MODA)

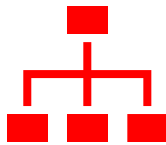
Roadmap



STEP
01

Getting Started

Concepts, definitions, data choice



STEP
02

Data Preparation

Choice of dimensions, indicators,
thresholds and age groups



STEP
03

Single Deprivation Analysis

Analysis by indicator and dimension



STEP
04

Multiple Deprivation Analysis

Deprivation count and overlap
analysis by age group



STEP
05

Multiple Deprivation Analysis Profiling



1.1. CHOOSE THE CONCEPT TO BE ANALYZED

- **DEPRIVATION**

But also

- MONETARY POVERTY
- SUBJECTIVE / SELF ASSESSED POVERTY
- FINANCIAL STRAINS
- SOCIAL EXCLUSION



1.2. DEFINE DEPRIVATION

The **guiding principles** for child well being dimensions choices are based on:

- *The Convention on the Rights of the Child (CRC) (1989)*
- *The World Summit on Social Development (1995)*
- *the Millennium Development Goals (2000; 2003)*
- National Consensus



1.3. SPECIFY THE **DIMENSIONS** OF DEPRIVATION

Which dimensions to include in a child poverty measure?

Measurement of child poverty can be based on *constitutive rights of poverty*

(i.e. when “a person’s lack of command over economic resources plays a role in causing their non-realization”)
as developed by the Office of the High Commissioner for Human Rights (2012)



EDUCATION



HEALTH



INFORMATION



FOOD/NUTRITION



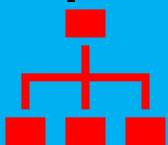
WATER



HOUSING



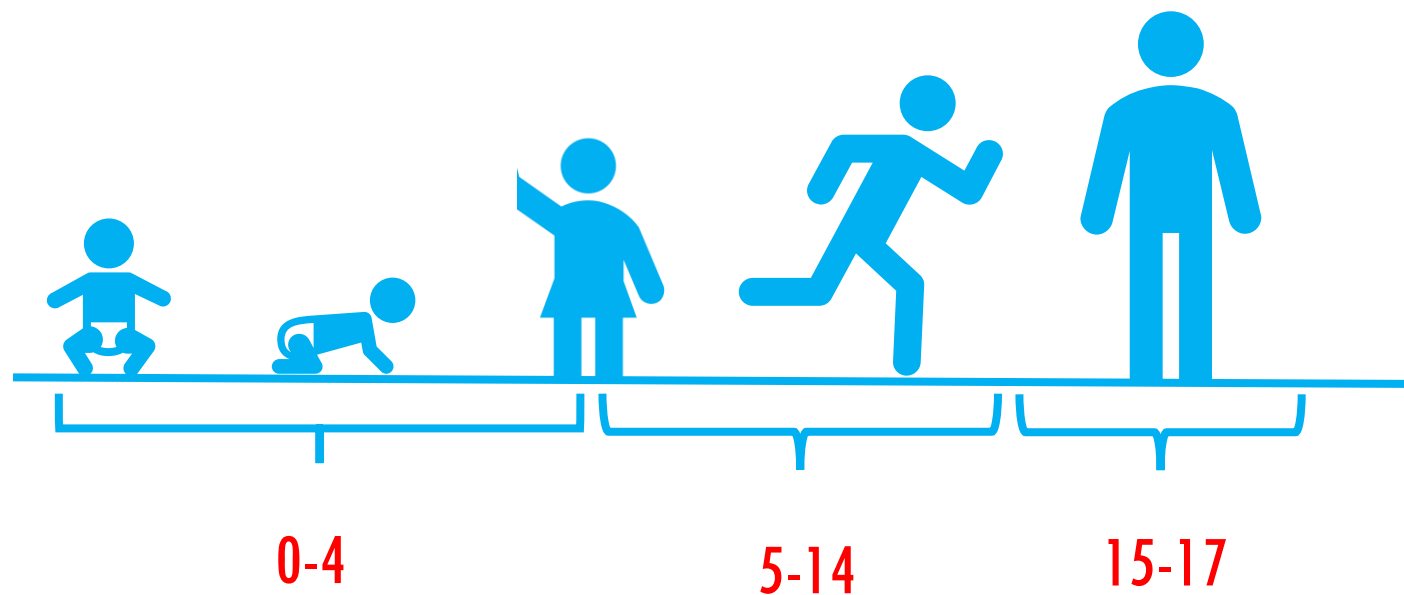
SANITATION



2.1. DEFINE THE REFERENCE POPULATION

Life-course stages

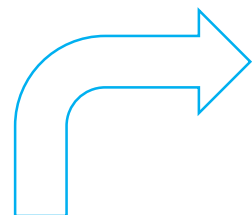
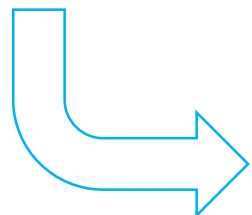
Child age groups



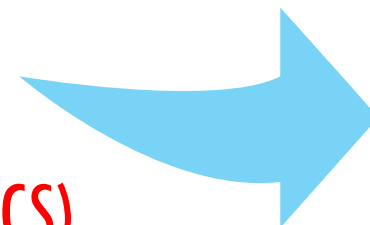


2.2. CHOOSE THE DATASET

National level
analysis

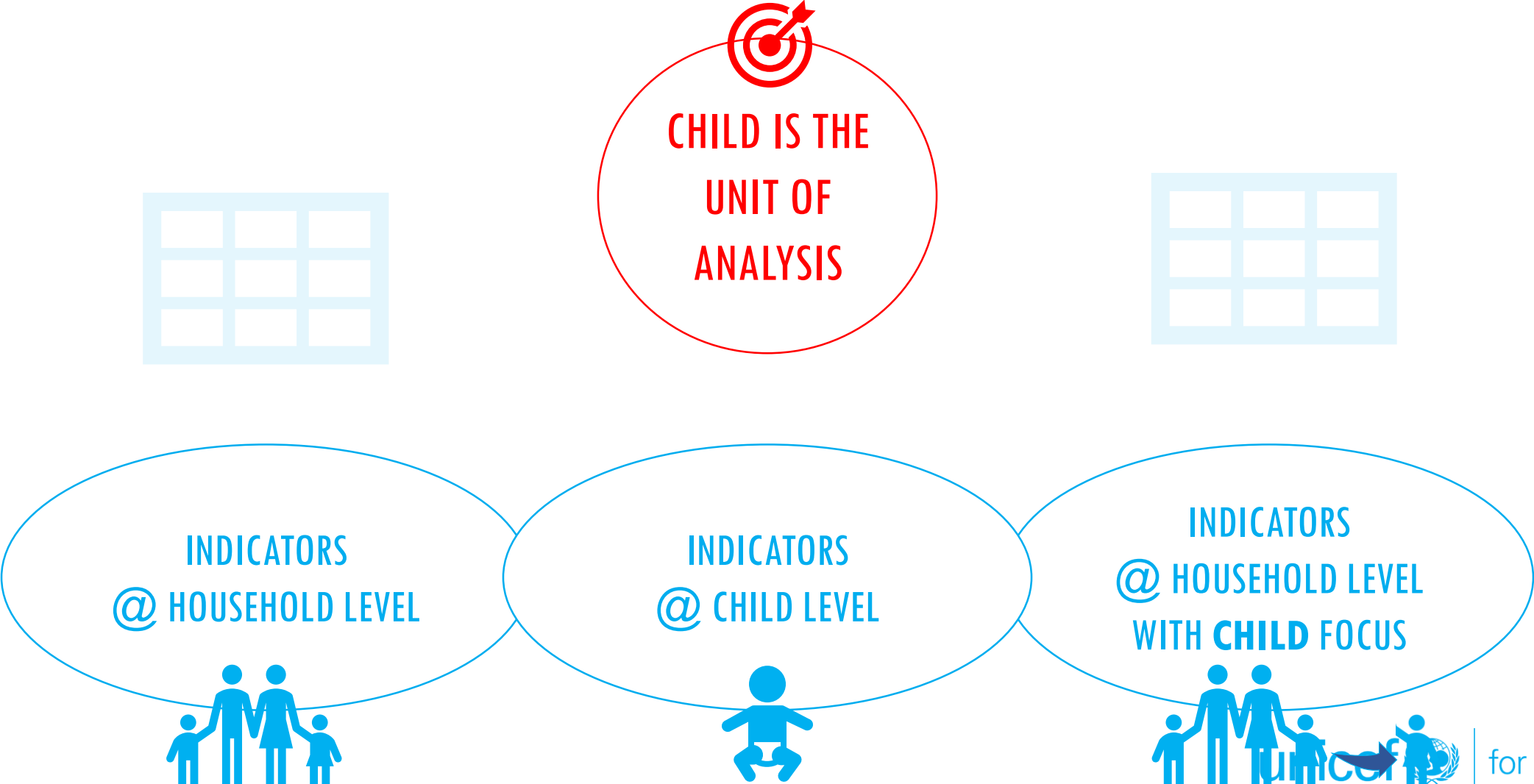


- Household living conditions surveys
- Household budget surveys
- Multiple Indicator Cluster Surveys (MICS)
- Demographic and Health Surveys (DHS)



STATA, R, SAS, SPSS

Cross Country
analysis





2.4. DEFINE THE LIFE CYCLE STAGES AND DIMENSIONS USED

0-23 months



24-59 months



INDICATORS
can be AGE-SPECIFIC

5-14 years



15-17 years



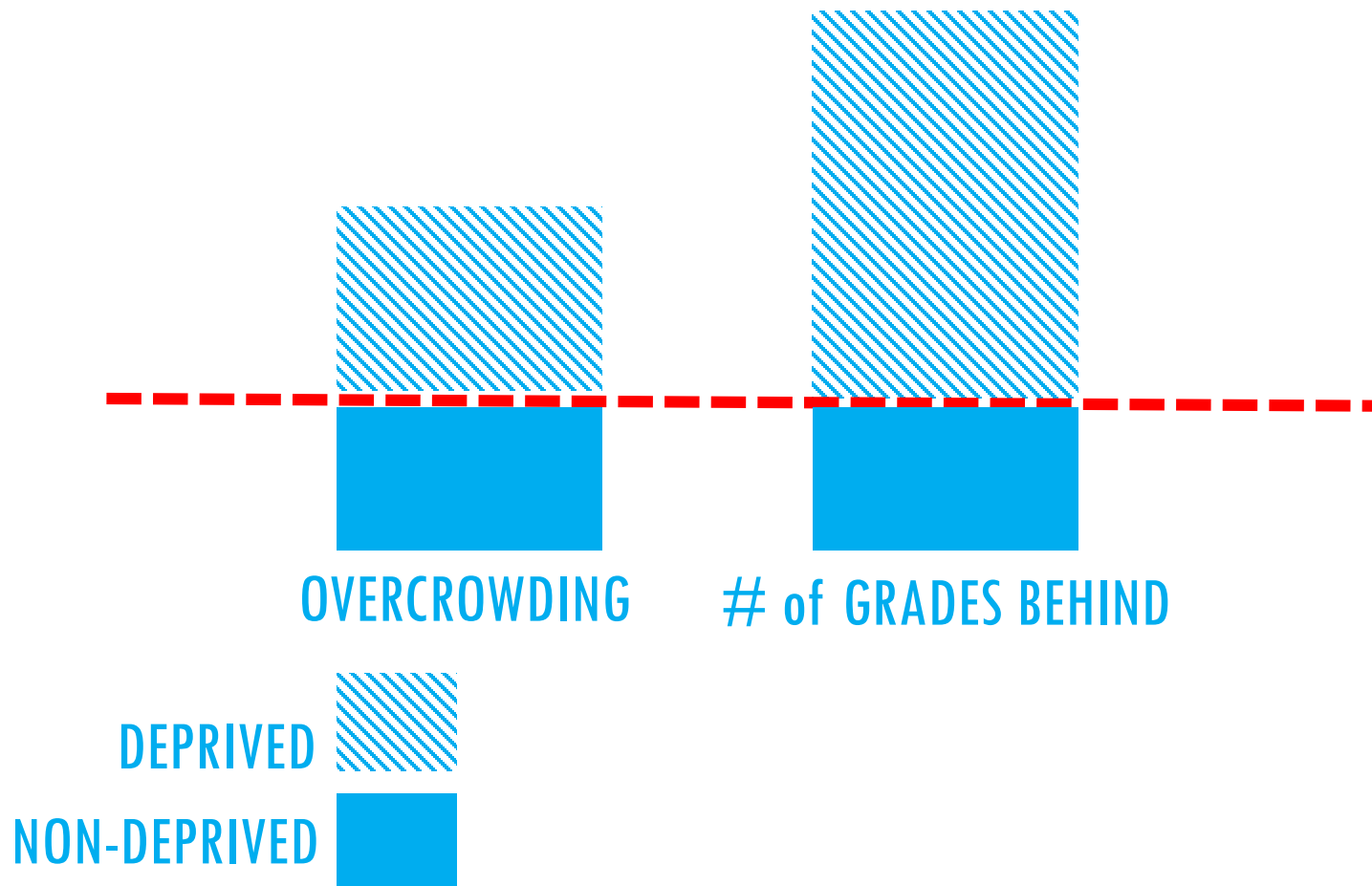


2.5. COMBINE THE INDICATORS INTO DIMENSIONS





2.6. SET THE DEPRIVATION THRESHOLD



Two examples

Overcrowding:

a child is **deprived** if s/he sleeps in a room with more than 4 people

Number of grades behind in school:

a child is **deprived** if s/he is 2 or more grades behind in primary school

Single Deprivation Analysis

STEP
03



3.1. SINGLE DEPRIVATION ANALYSIS – A SECTOR-BY-SECTOR ANALYSIS

For each indicator/dimension: estimate the percentage of children deprived

					
BY INDICATOR		SCHOOL ENROLMENT	SCHOOL ATTENDANCE	STUNTING	ACCESS TO PIPED WATER
3 CHILDREN		✗	✗	✓	✓
		✓	✓	✗	✗
		✓	✗	✗	✗
# of DEPRIVED CHILDREN		1	2	2	2
HEADCOUNT RATIO		1/3	2/3	2/3	2/3
		33%	67%	67%	67%

✗ DEPRIVED
✓ NOT DEPRIVED



3.2. SINGLE DEPRIVATION ANALYSIS – A SECTOR-BY-SECTOR ANALYSIS

- Multiple indicators under the same dimension are aggregated in one dimension using union, intersection, or intermediate cut-off approaches (→ here union - a child is deprived in a dimension if s/he experiences deprivation in any indicator under this dimension).

BY DIMENSION					
		SCHOOL ENROLMENT	SCHOOL ATTENDANCE	STUNTING	ACCESS TO PIPED WATER
3 CHILDREN		✗	✓	✓	✓
		✓	✗	✗	✗
		✗	✗	✗	✗
# of DEPRIVED CHILDREN		2	2	2	
HEADCOUNT RATIO		2/3	2/3	2/3	
		67%	67%	67%	

every child



4.1. MULTIPLE DEPRIVATION ANALYSIS

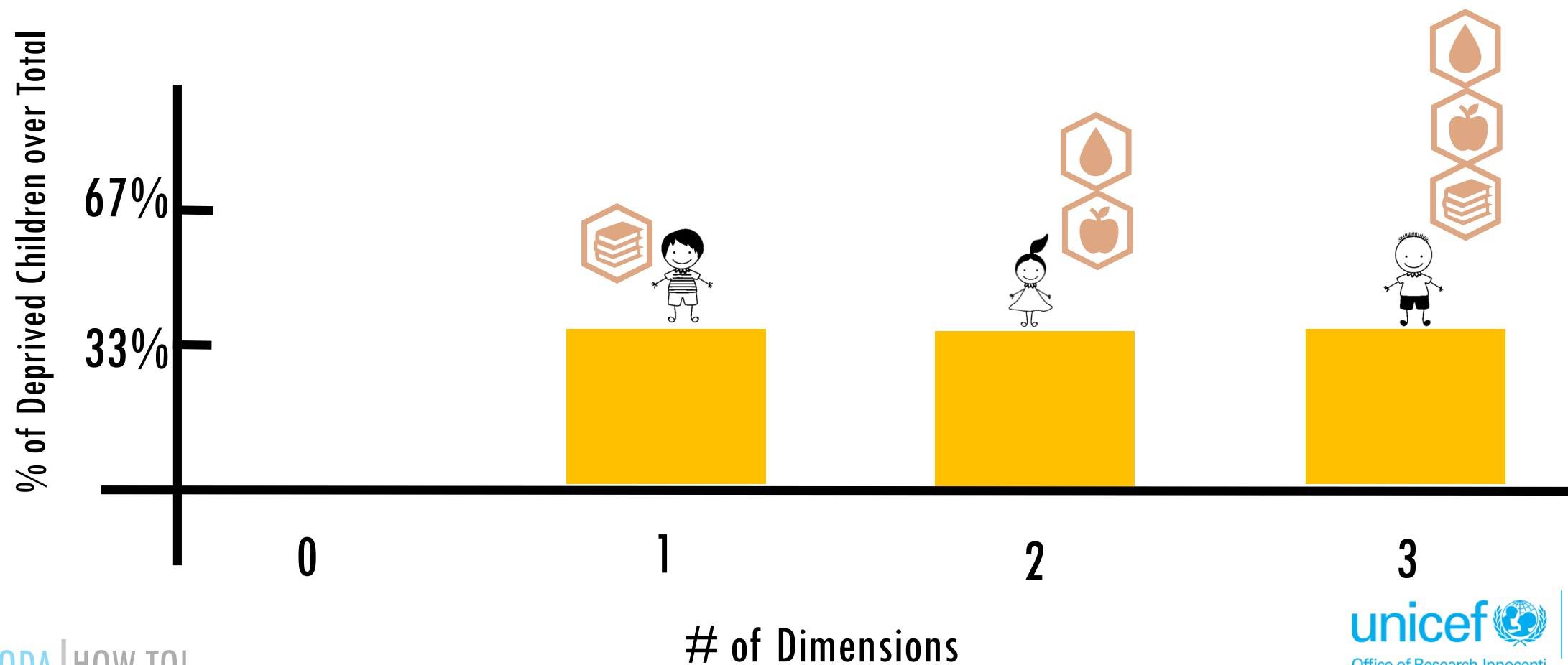
BY CHILDREN					# of DEPRIVATIONS	# of DIMENSIONS	INTENSITY OF DEPRIVATION
		SCHOOL ENROLMENT	SCHOOL ATTENDANCE	STUNTING			
3 CHILDREN		✗		✓	1	3	33%
		✓		✗	2	3	66%
		✗		✗	3	3	100%

Estimate the percentage of children deprived in a number of dimensions



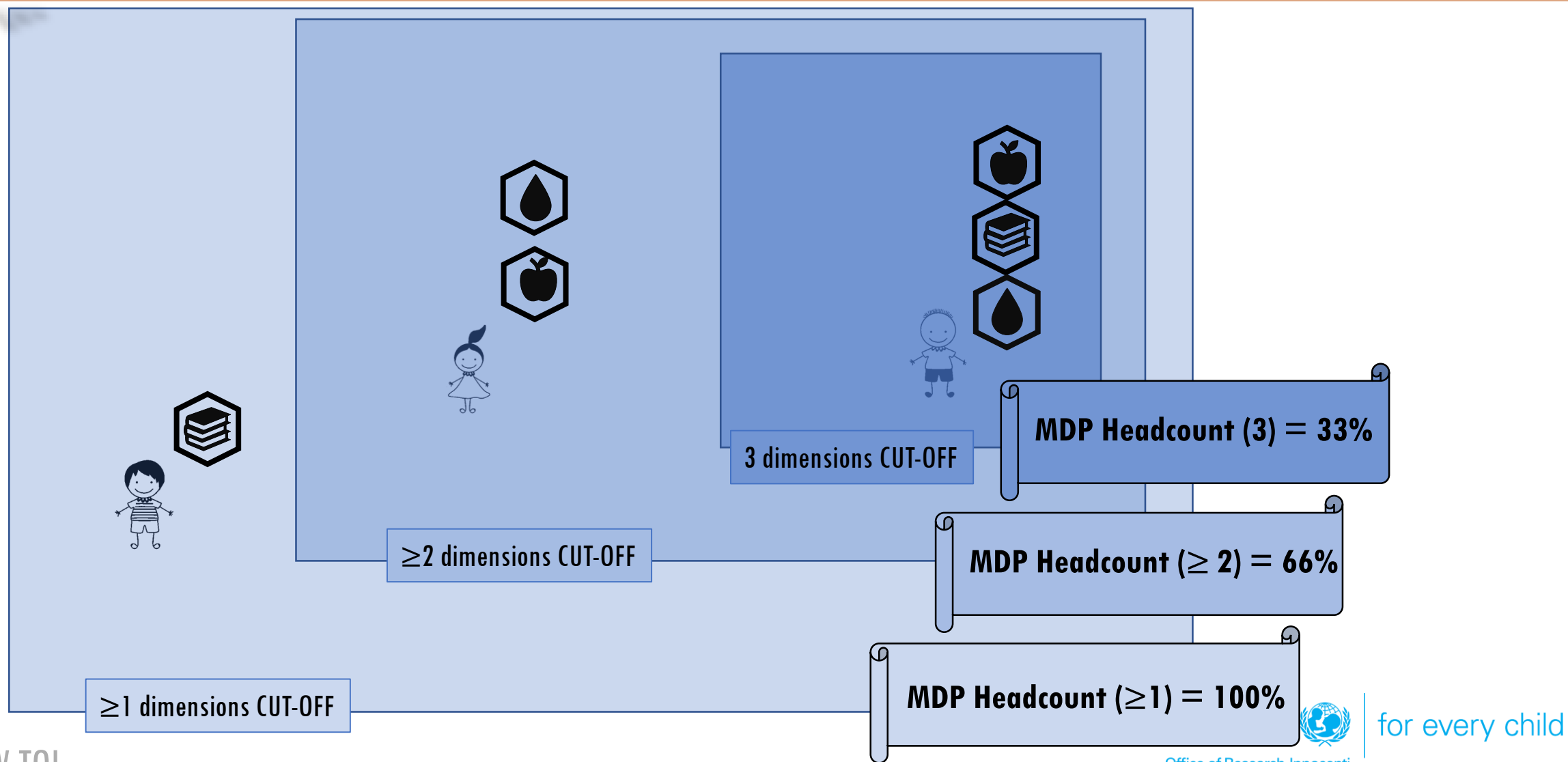
4.1. DEPRIVATION COUNT AND DISTRIBUTION

How many children are deprived in 0, 1, 2 or more dimensions?





4.2. MULTIDIMENSIONAL POVERTY (MDP) RATE with different CUT-OFFs



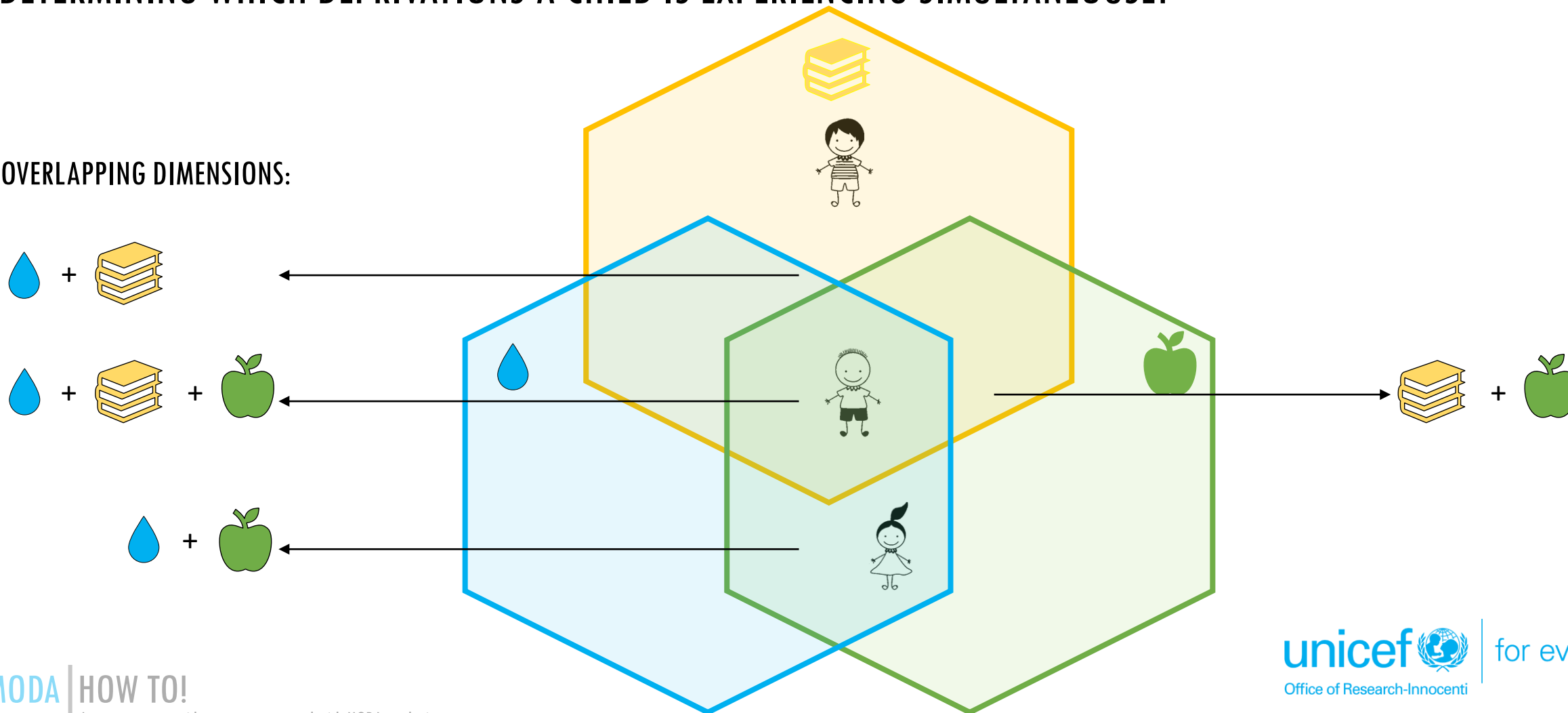
for every child



4.3. OVERLAP ANALYSIS

DETERMINING WHICH DEPRIVATIONS A CHILD IS EXPERIENCING SIMULTANEOUSLY

OVERLAPPING DIMENSIONS:

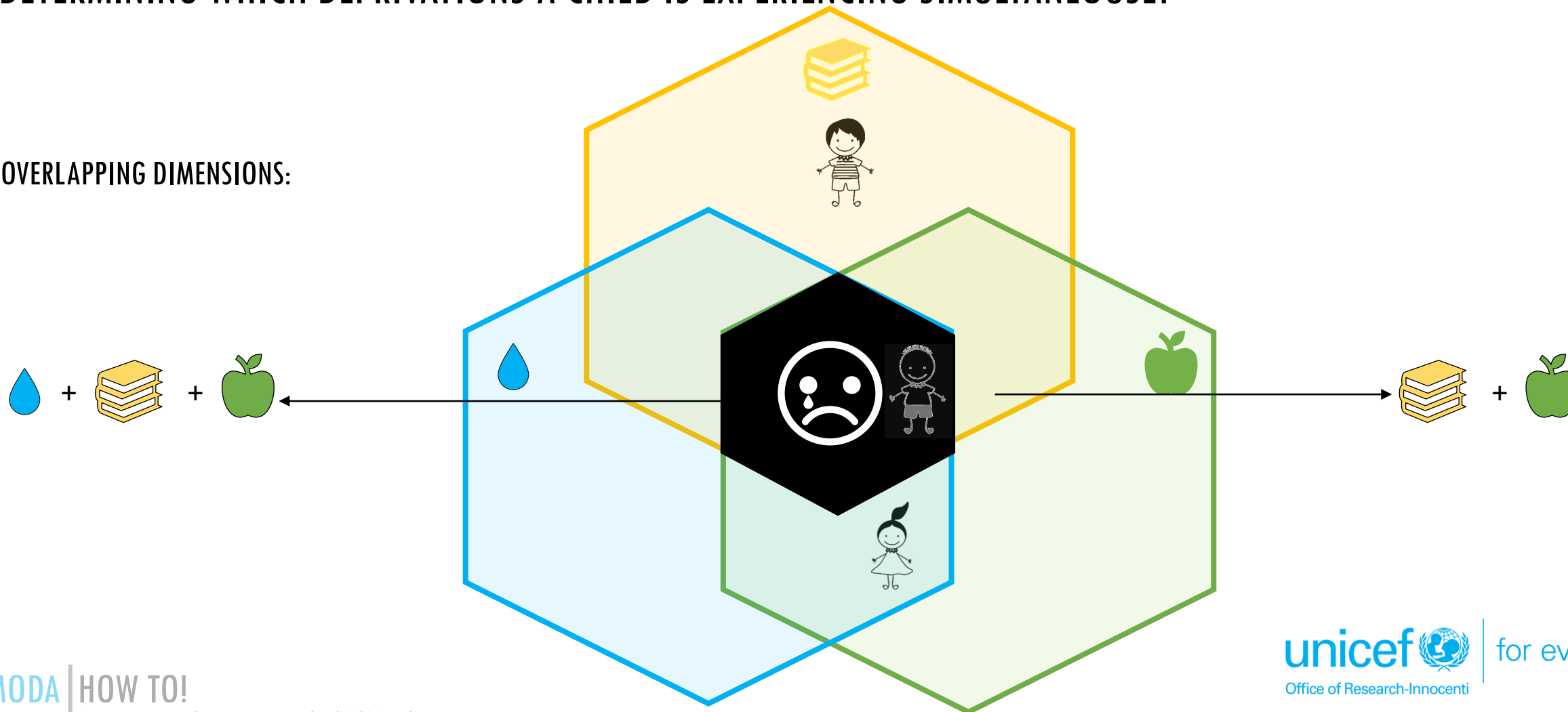




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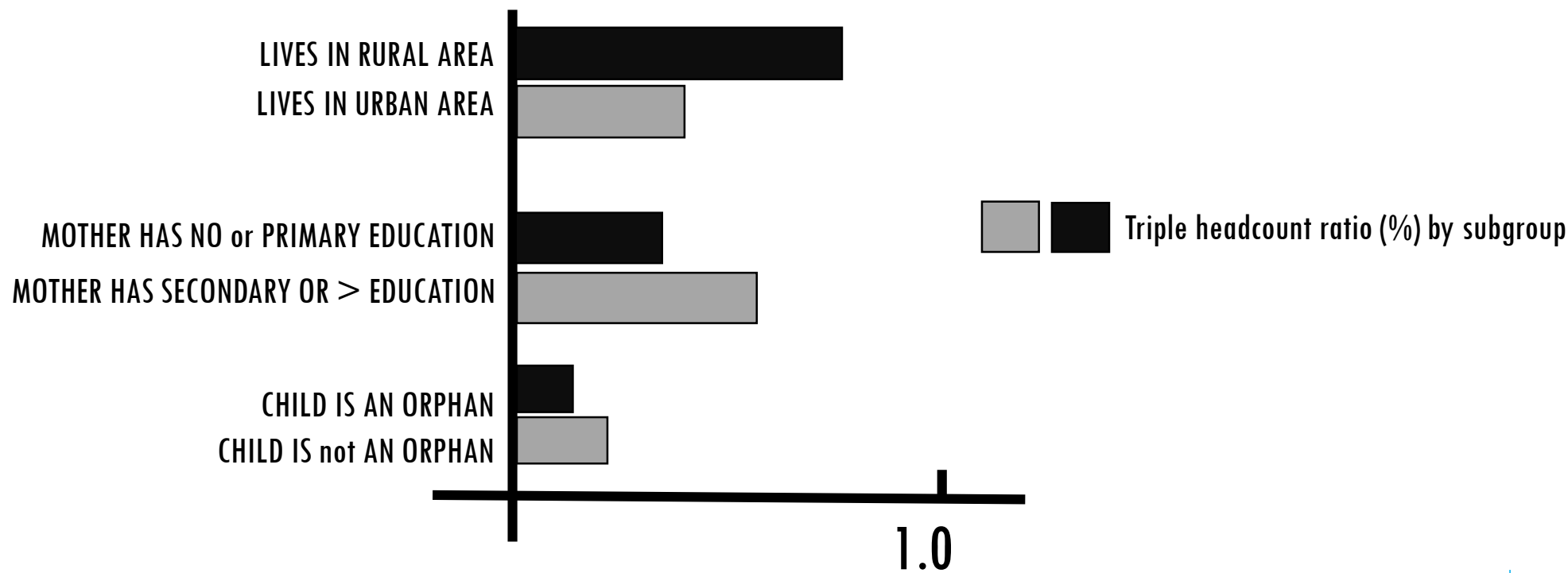




4.4. CONSTRUCT A PROFILE OF CHILDREN IN DEPRIVATION OVERLAPS

Who are the children deprived in three dimensions simultaneously?*

Deprivation headcount ratio (%) for children deprived in all three dimensions (🚰 + 📚 + 🍏) according to different characteristics



of deprived children in a given combination of dimensions as % of children in the specified age group with a given characteristic

