IndiKit

VITAMIN A DEFICIENCY AMONG CHILDREN

Impact indicator

Indicator Phrasing

English: % of children aged 24–71 months experiencing night blindness

French: % d'enfants âgés de 24 à 71 mois souffrant de cécité nocturne

Spanish: % de niños de 24 a 71 meses con ceguera nocturna

Portuguese: % de crianças m idades entre 24-71 meses com sintomas de cegueira noturna

Czech: % dětí ve věku 24-71 měsíců postižených noční slepotou

What is its purpose?

The indicator measures the proportion of children experiencing night blindness, a condition in which they cannot see in dim light. It is the earliest and easiest-to-measure sign of vitamin A deficiency. It is the single most important cause of childhood blindness in developing countries and significantly contributes to child morbidity and mortality. According to WHO, up to 500,000 vitamin A-deficient children become blind every year.

How to Collect and Analyse the Required Data

Collect the following data by conducting individual interviews with mothers of (a representative sample of) children aged 24-71 months:

RECOMMENDED SURVEY QUESTIONS (Q) AND POSSIBLE ANSWERS (A)
Q1 for data collector: if you have not done so earlier, ask for the name of the youngest child aged 24-71 months

Q2: *Does* [specify the child's name] *usually have any problem seeing in the daytime?*

A2: yes / no / I do not know

(ask the next questions only if the previous answer is NO)

Q3: *Does* [specify the child's name] *usually have any problem seeing in the evenings or at nighttime?*

A3: yes / no / I do not know

(ask the next question only if the previous answer is YES)

Q4: *Is* [specify the child's name]'*s ability to see and do things in the evening, when there is less light, different from the ability of other children living in this community?* (use this question only in areas where vitamin A deficiency is not very prevalent)

A4: yes / no / I do not know

(ask the next question only if the answer to Q2 is NO and the answer to Q4 is YES)

Q5: *Does* [specify the child's name] *have night blindness?* (use local term that describes the symptom)

A5: yes / no / I do not know

A child can be counted as experiencing night blindness if the response to Q2 is no, to Q3 yes, to Q4 (if used) yes, and to Q5 yes. To **calculate the indicator's value,** divide the number of children aged 24-71 months who experience night blindness by the total number of surveyed children (exclude all whose mothers replied "I do not know"). Multiply the result by 100 to convert it to a percentage.

Disaggregate by

Disaggregate the data by gender, age groups, and wealth.

Important Comments

1) The provided set of four questions is based on WHO's recommendation.

2) Since the prevalence of night blindness is relatively low, the margin of error must be very low (preferably 0.5); otherwise, it is unlikely that you will be able to objectively assess the impact of your intervention. This requires using a **very large sample of children (ranging from 8,000 to 30,000 children)** and makes assessing vitamin A deficiency quite demanding.

3) According to WHO, the prevalence of night blindness among children aged 24-71 months should be **interpreted as**:

0.01 – 0.99%: mild

1 – 4.99%: moderate

above 5%: severe

4) **Consult and ideally co-implement the survey with the relevant health authorities**, so that you increase the chances of the results being officially recognized (and ideally also acted upon).

5) Since interviewing such a large number of respondents is fairly demanding, before you conduct a new survey, first review the availability of **existing data** – you might be able to use it for your baseline (however, ensure that you will be able to gain **comparable** endline data).

6) **Do not survey children younger than 24 months** – they are not usually very mobile at dusk or after dark and night blindness can therefore go unnoticed.

7) Whenever possible, **find and use a local name for night blindness** (for example, in Ethiopia, it is known as *dafint* in Amhara, *hema* in Oromiya, and *gahami* in Tigray).

8) This indicator relies on accurate age assessment. Since people often do not remember the exact dates of their children's birth, the data collectors should **always verify the child's age**. This can be done by reviewing the child's birth certificate, vaccination card or another document; however, since many caregivers do not have such documents (and since they can include mistakes), it is essential that your data collectors are able to **verify the child's age by using local events calendars**. Read FAO's Guidelines (see below) to learn how to prepare local events calendars and how to train data collectors in their correct use.

E-Questionnaire

- XLS form for electronic data collection - indicator Vitamin A Deficiency Among Children

Access Additional Guidance

- FAO (2008) Guidelines for Estimating the Month and Year of Birth of Young Children

- WHO (2012) Assessing Vitamin A Deficiency

- WHO (2014) Assessment of Vitamin A Deficiency