Caseload and supply calculator

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CASELOAD AND SUPPLY CALCULATOR

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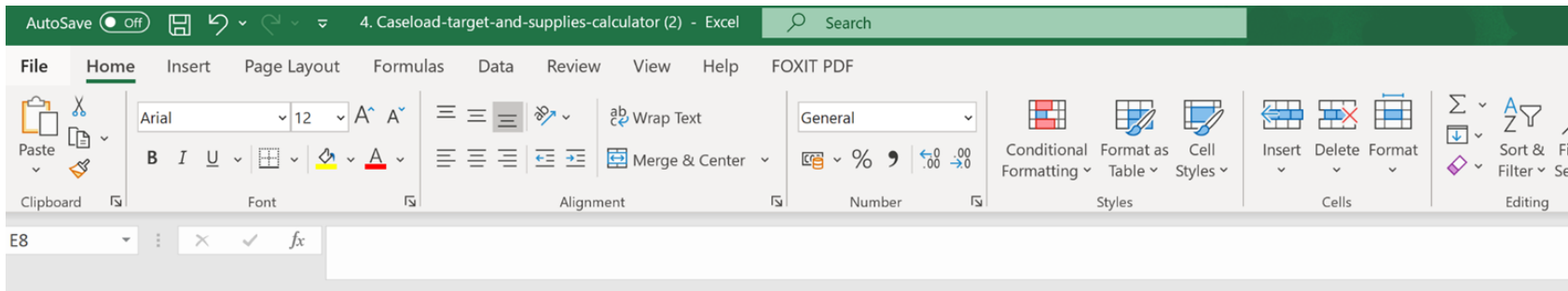
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SIMPLIFIED APPROACHES

Burden, Caseload and RUTF supply calculator

When modifying admissions criteria and/or dosage of RUTF for treating child wasting, estimations of the number of children eligible for admission as well as the quantity of RUTF will be affected.

Based on existing approaches to calculate both caseload and RUTF consumption, this tool helps to provide rough estimates based on population data, prevalence data and context specific variables such as coverage, incidence and consumption. This tool will only provide an estimated forecast of needs over the period of 1 year. Estimations should be compared against previous annual admissions and if large discrepancies are found, modifications should be made to the variable data points. Actual consumption should be monitored throughout the intervention to avoid stock-outs.

Guiding notes can be found at the top of tabs 1 (data entry) and 2 (variables). All other tabs are calculations based on the data entered into these two tabs. If the pivot tables on tab 4 (analysis) do not refresh, simply refresh the data by clicking 'Refresh' in the PivotTable tab.

The calculations are based on the following formulas;
Burden = population 6–59 months × [prevalence × (1 + K)] *
Caseload = Burden x Coverage
Supply Needs = Caseload x (# of sachets / 150)

Definitions

Burden: The number of v
children in the catchment

Caseload: The number o
children targetted or expe
treatment by the service i
catchment area

Supply Needs: The num
cartons of RUTF needed
treatment over the course

Prevalence: The proport
wasted children at a give
time

Incidence: The rate of o
wasting over the course o

SIMPLIFIED APPROACHES

WHY HAVE WE DEVELOPED THIS TOOL?

- To help implementers understand the programmatic implications of increasing the MUAC cut-off, using MUAC (and oedema) as the only admissions and using one treatment product.

WHO IS THIS TOOL FOR?

- Implementers who are considering the combined protocol

WHEN SHOULD THIS TOOL BE USED?

- At the inception or planning phase, to understand the operational implications and to assess what resources (financial & HR) would be needed

HOW WAS THE TOOL DEVELOPED?

- Using the existing approach to calculating the number of children expected which is based on population & prevalence data, combined with incidence and coverage. The tool calculates the burden, caseload and supply needs of standard services (i.e what is currently being implemented) vs. modified admissions and dosage

HOW ACCURATE ARE THE ESTIMATIONS?

- Estimating caseload and supply needs is imperfect and these forecasts should be carefully monitored and importantly revised according to any contextual changes

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DATA ENTRY

Example data given to demonstrate how the tool works. Delete information in rows 5-9 before entering your own data.

Country	Admin 1 (Region)	Admin 2 (Health District)	Total population	Prevalence WHZ<-3	Prevalence MUAC <115mm	Prevalence WHZ <-2	Prevalence MUAC <125mm
Please enter country name below	*Please enter the name of the region below*	*Please enter the name of the health district below*	*Please enter the total population for the health district below*	*Please enter prevalence from the latest survey based on **weight for height <-3***	*Please enter prevalence from latest survey based on **MUAC <115***	*Please enter prevalence data from latest survey based on all children **weight for height <-2** (otherwise referred to as GAM)*	*Please enter prevalence data from latest survey based on all children **MUAC <125** (i.e. both SAM & MAM by MUAC)*
Buranda	Fonte	Bella	289,000	3.5%	1.5%	12.0%	5.3%
Buranda	Fonte	Inoto	231,190	3.5%	1.5%	12.0%	5.3%
Buranda	Fonte	Exila	132,317	3.5%	1.5%	12.0%	5.3%
Buranda	Vala	Falluto	61,923	3.5%	1.5%	12.0%	5.3%
Buranda	Vala	Bangora	129,980	3.5%	1.5%	12.0%	5.3%

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VARIABLES

Children 6-59 months as percentage of total population, %	Expected or target programme coverage for severe wasting %	Expected or target programme coverage for children <125mm, %	Incident correction factor for severe wasting	Number of sachets per one beneficiary - Standard dose	Number of sachets per one beneficiary - Modified dose
Use proportion of children 6-59 months from the latest demographic survey. If no such data exists, estimate as 20% of the population (in low income countries only)	Enter here target or expected coverage	Enter here target or expected coverage for this expanded group of children, which is likely to be 10-15% less than the target for severe only	The most recent published evidence calculates wasting incidence to be 3.6. Country specific data should be used where available. *, **	On average, one carton (150 sachets) is estimated per child for recovery from severe wasting. Country specific data should be used where available	On average children receive between 60-85 sachets for recovery using a modified dosage on a MUAC only programme admitting children <125mm. Ammend figure with context specific data where available
20.0%	70%	60%	4.6	150	70

*Given the lack of data on wasting in the 115-125mm children, one incidence factor is applied to the estimates of burden in this population, being the same as that used for severe wasting. As more data becomes available, this tool should be modified to reflect the latest findings

** Isanaka S, Andersen CT, Cousens S, et al **Improving estimates of the burden of severe wasting: analysis of secondary prevalence and incidence data from 352 sites** BMJ Global Health 2021

CALCULATIONS

Burden: # of children	Standard protocol for severe wasting	MUAC <125mm
⊟Buranda	27,190	41,173
⊟Fonte	21,011	31,816
Bella	9,306	14,092
Inoto	7,444	11,273
Exila	4,261	6,452
⊟Vala	6,179	9,357
Falluto	1,994	3,019
Bangora	4,185	6,338
Grand Total	27,190	41,173

Caseload: # of children	Standard protocol for severe wasting	MUAC <125mm
⊟Buranda	19,033	24,704
⊟Fonte	14,707	19,090
Bella	6,514	8,455
Inoto	5,211	6,764
Exila	2,982	3,871
⊟Vala	4,326	5,614
Falluto	1,396	1,812
Bangora	2,930	3,803
Grand Total	19,033	24,704

Supply Needs: # of cartons of RUTF	Standard protocol for severe wasting	All children <125mm with modified dosage
⊟Buranda	19,033	11,529
⊟Fonte	14,707	8,909
Bella	6,514	3,946
Inoto	5,211	3,156
Exila	2,982	1,806
⊟Vala	4,326	2,620
Falluto	1,396	845
Bangora	2,930	1,775
Grand Total	19,033	11,529

SIMPLIFIED **APPROACHES**

VISUALISATIONS