Intervention costing in OneHealth:
Concepts related to Population in Need, Target Population and Coverage

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The determinants for intervention costs are the **number of people** receiving the intervention and the **quantity of resources** required to deliver the intervention per person.

In order to calculate the number of people receiving the services, OneHealth includes data entry fields for the following:
- Population
- Target Population
- Population in Need
- Coverage

All four of the above must have data entered into them in order for the tool to be able to estimate the number of people receiving the intervention by year.
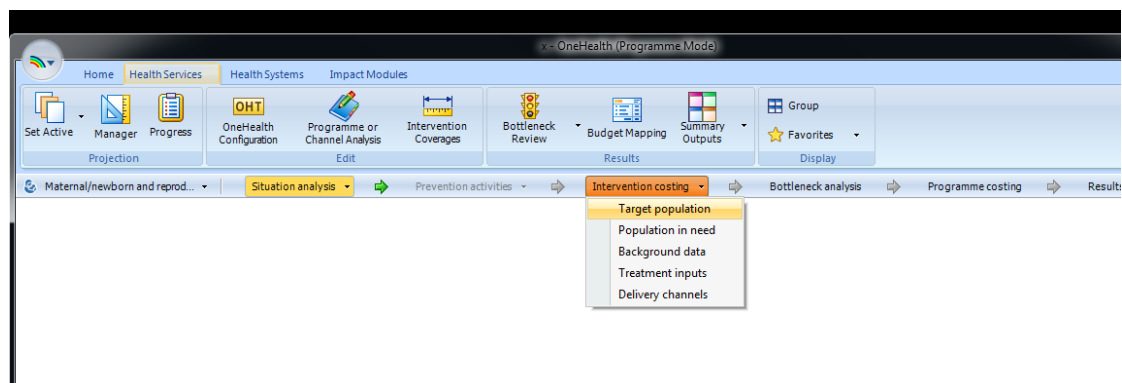
Population: The overall demographic parameters for the population are entered into the Demproj module. There are country-specific defaults here.

Target Population: this is where the sub-population that will receive the intervention is identified. There are global defaults available here for each intervention.

Examples of target population include:
- pregnant women
- adolescents
- children aged < 1 month
- children aged 0-59 months
- children aged 1-59 months
- total population
- Etc.

The user can select from the drop-down list of default populations, or specify the target population of each intervention as shown below:

The custom target population is useful in particular for custom interventions which the user has added to the tool, which were not part of the default list of OneHealth interventions.

Population in need: this section is used to identify what share of the target population requires the intervention, per year. For most preventive care interventions, the share will be 100%. For example, antenatal care will be required for all pregnant women.
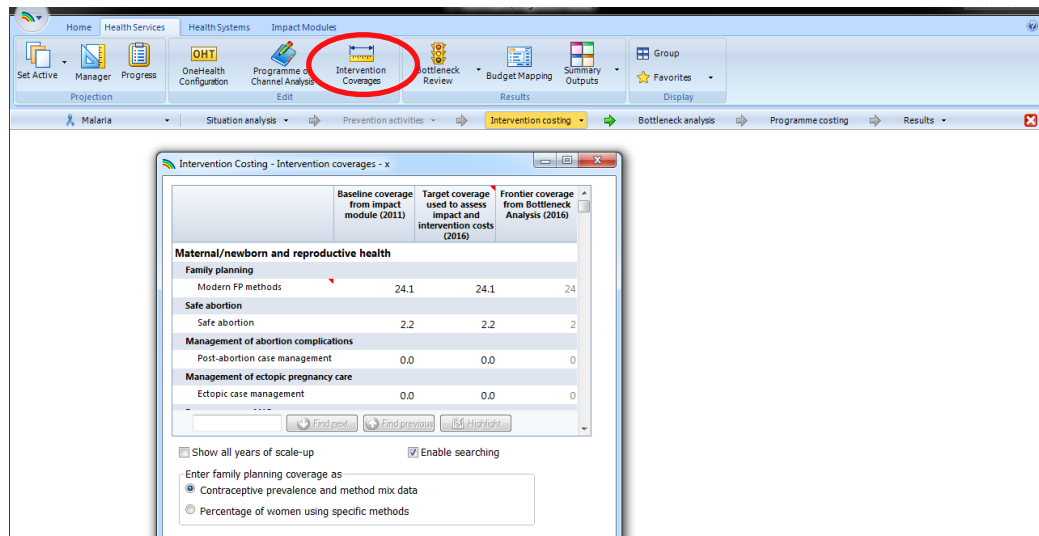
Population in need is determined by incidence and prevalence of conditions, and treatment guidelines.

In some instances the population in need may be > 100%. For example, management of diarrhea with ORS. The target population is children aged 0-59 months. If we put 100% population in need, this means that each child will on average receive the intervention once per year. However in many settings the incidence of diarrhea may be greater than 1.0. For example, if the incidence of diarrhea in children is estimated at 3.5 episodes per year, the Population in need will then be 350%. If 1 % of all diarrhea cases are estimated to be severe, then the population in need for treatment of severe diarrhea is 3.5% (calculated as 350% x 1%).

For another example, take treatment of malaria in pregnant women. Here the target population is pregnant women, and the population in need is the percentage of pregnant women who will need treatment of malaria, per year.

Coverage: The coverage measure refers to how many, out of the population in need, are actually receiving the intervention. This is an indicator commonly measured in household surveys such as Demographic and Health Surveys (DHS) and Multiple Indicator Cluster Surveys (MICS). E.g., among children with a fever during the past two weeks, how many were taken to a health provider for treatment?

In the current version of OneHealth, coverage is entered into the Coverage Editor (see below). In future versions of OneHealth, coverage will be incorporated into the intervention costing editors for each specific programme.

There are three columns in the generic coverage editor (though the columns can be expanded to include coverage targets for all years).

- *Baseline coverage* – this is the starting coverage in the base year. Default values appearing here come from the impact modules. If the default value is zero, there may not be any data available as default for the specific intervention. Values entered into this column will drive the calculated estimates.
- *Target coverage used to assess impact and intervention costs* – this is the final target coverage for the end year of your projection. Values entered into this column will drive the calculated estimates for the end year.
- *Frontier coverage from Bottleneck analysis* – values appearing in this column are those derived from the bottleneck analysis for selected interventions. Values in this column do not drive any calculations in the tool – they are only available as a reference point. If users have not done a bottleneck analysis, the value showing here will by default be the same as the baseline coverage. If the user has chosen to do bottleneck analysis, then most likely a target will show that is the suggested value that the user may consider to put as the coverage target for the final year of the projection.

In the example below, the user has not done a bottleneck analysis. Thus the values shown in the right hand column are the same as the baseline coverage.

Intervention Costing - Intervention coverages - x

	Baseline coverage from impact module (2011)	Target coverage used to assess impact and intervention costs (2016)	Frontier coverage from Bottleneck Analysis (2016)
Immunization			
Rotavirus vaccine	0.0	0.0	0
Measles vaccine	90.0	95.0	90
Hib vaccine	75.0	95.0	75
Pneumococcal vaccine	0.0	0.0	0
DPT vaccination	90.0	95.0	90
Polio vaccine	90.0	95.0	90
BCG vaccine	90.0	95.0	90
HPV vaccine	0.0	0.0	0

Find next   Find previous   Highlight

☐ Show all years of scale-up   ☑ Enable searching

Enter family planning coverage as
◉ Contraceptive prevalence and method mix data
○ Percentage of women using specific methods

Notes
- Intervention coverages are interpolated linearly between the baseline and target year.
- Interventions without calculated impact are marked in red.

Close   Transfer coverages to impact modules   ❓ Help

Notes:
- When in doubt about what value to enter for the Population in Need, go into the Target Population editor and review what target population has been selected.
- The OneHealth tool includes pop-up texts to guide users on the default definitions for the Population in Need, Target Population, and Coverage. These are shown as red triangles in the upper right hand corner of the cell. Text will appear when the user hovers the cursor above the flagged cell..

Examples for illustration:

Measles Vaccine
How should data be inputted?
- The target population can be put as births or children <1 .
- The population in need is 100% since the recommendation is that all children are immunized.
- The current coverage may be 80-90% depending on the country.

School health programme
A new school health programme will be set up to target children age 9-12 years in rural areas. The ambition is that 60% of schools in rural areas should be covered by 2015. How should data be inputted?
- The target population can be customized to children from age 9 to 12. Indicate whether both sexes are covered or select males / females.
- The population in need is the percentage of children living in rural areas, who are enrolled in school. In this example assume the proportion is 75% population in rural areas and 90% of those are enrolled in school. The population in need is then 75% x 90% = 67.5%
- The current coverage is 0% and the target coverage for 2015 is set to 60%.

PMTCT
How should data be inputted?
- The target population should be set to "Women in need of PMTCT". This is a specific parameter that pulls the relevant data from the HIV impact module.
- The population in need here would be 100% since the target population is already defined as Women in need of PMTCT.
- The current coverage can target coverage is country-specific.