

PHG Needs Assessment Calculator  
Bahrain  
Congenital Rubella Syndrome

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Bahrain  
 Shared Data  
 Demographic, maternal health and socio-economic indicators

**Please read first! If you have already completed a needs assessment for a different topic in this country, you will be able to copy the Demography information from that Calculator into here. The information should be the same.**

By default, the Toolkit contains information at the national level.

If you would like to use a different population, then replace country information with that of your specific population of interest.

Number of persons by age-group and sex Age group	Estimates			Your estimates			Chosen estimates		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
0-4 years	41062566	34470044	75532610			0			0
5-9 years	38464665	32416884	70881549			0			0
10-14 years	40267277	34641185	74908462			0			0
15-19 years	51904830	47984284	99889114			0			0
20-24 years	64008573	63403945	1.3E+008			0			0
25-29 years	50837038	50176814	1.0E+008			0			0
30-34 years	49521822	47616381	97138203			0			0
35-39 years	60391104	57634855	1.2E+008			0			0
40-44 years	63608678	61145286	1.2E+008			0			0
45-49 years	53776418	51818135	1.1E+008			0			0
50-54 years	40363234	38389937	78753171			0			0
55-59 years	41082938	40229536	81312474			0			0
60-64 years	29834426	28832856	58667282			0			0
65+ years	57205535	61721623	1.2E+008			0			0
<b>Total</b>	<b>6.8E+008</b>	<b>650481765</b>	<b>1.3E+009</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Female population aged 15-44 years		327961565			-			-	
Data year	2010 reported in 2012								
Source, Year	UN 2012								

**Ethnicity.** Please enter data for the main ethnic groups if you are working with a population that is different from that of the country.

Ethnic group	Number	% population

Fertility and mortality	Estimate	Source, Year	Your estimate	Source, Year	Chosen estimate	Source, Year
Crude birth rate: live births (LB) / year / 1000 population	18.94	Unicef, 2013				
Still birth rate: still births (SB) / year / 1000 total births	8.92	WHO, 2009				
Total births in 1000s (LB+SB) per year	23	Unicef, 2013				
Infant mortality rate: infant deaths / 1000 LB / year	8.6	Unicef, 2013				
Under-5 mortality rate: U5 deaths / 1000 LB / year	10	Unicef, 2013				
Percentage births in women >35 years						
Life expectancy at birth (yrs)	75.06	Unicef, 2013				
% of marriages consanguineous						

Maternal health	Estimate	Source, Year	Your estimate	Source, Year	Chosen estimate	Source, Year
Prenatal visits – at least 1 visit (%)	100.0	Unicef, 2013				
Prenatal visits – at least 4 visits (%)	–	Unicef, 2013				
Births attended by skilled health personnel (%)	97.4	Unicef, 2013				
Contraception prevalence rate (%)	–	Unicef, 2013				
Unmet need for family planning (%)						
Total fertility rate	2.50	Unicef, 2013				
% home births						
% births at health care services	–	Unicef, 2013				
Newborn health	Estimate	Source, Year	Your estimate	Source, Year	Chosen estimate	Source, Year
Number of neonatal examinations by SBA / trained staff						
% neonatal examinations by SBA/ trained staff						

Socio-economic indicators	Estimate	Source, Year	Your estimate	Source, Year	Chosen estimate	Source, Year
Gross national income per capita (PPP int. \$)	21240	Unicef, 2013				
% population living on < US\$1 per day		Unicef, 2013				
Birth registration coverage (%)	>90	WHO 2009				
Death registration coverage (%)	90-100	WHO, 2009				

LB = live births

PPP = purchasing power parity

SBA = skilled birth attendant

Bahrain  
Shared Data  
Health Services Data

**Please read first! If you have already completed a needs assessment for a different topic in this country, you will be able to copy the Health Services information from that Calculator into here. The information should be the same.**

This section provides health-service-related information for your country.

By default, the Toolkit contains information at the national level.

If you would like to use a different population, then replace country information with that of your specific population of interest.

Health Expenditure	Estimate	Source, Year	Your estimate	Source, Year	Chosen estimate	Source, Year
Per capita total expenditure on health (PPP int. \$)	825.6	WHO 2011				
Total expenditure on health as percentage of GDP	3.8	WHO 2011				
Per capita government expenditure on health (PPP int. \$)	586.4	WHO 2011				
External resources for health as percentage of total expenditure on health	34.6	WHO 2011				
General government expenditure on health as percentage of total expenditure on health	71	WHO 2011				
Out-of-pocket expenditure as percentage of private expenditure on health	57.2	WHO 2011				
Private expenditure on health as percentage of total expenditure on health	29	WHO 2011				
General government expenditure on health as percentage of total government expenditure	9.2	WHO 2011				

Health Workforce	Estimate	Source, Year	Your estimate	Source, Year	Chosen estimate	Source, Year
Number of nursing and midwifery personnel	2856	WHO, 2008				
Nursing and midwifery personnel density (per 10,000 population)	37.3	WHO, 2008				
Number of physicians	1103	WHO, 2008				
Physician density (per 10,000 population)	14.42	WHO, 2008				
Number of obstetricians						
Number of paediatricians						
Number of paediatric surgeons						
Number of paediatric cardiac surgeons						
Number of paediatric neurosurgeons						
Number of clinical geneticists						
Number of genetic counsellors						
Number of community health workers						
Number of skilled birth attendants (SBA)						
Density of SBA						
Number of lab staff providing cytogenetic testing						
Number of lab staff providing molecular genetics						
Number of lab staff providing biochemical tests for genetics						

Number of skilled health attendants						
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Infrastructure	Estimate	Source, Year	Your estimate	Source, Year	Chosen estimate	Source, Year
Number of maternity units						
Number of services providing specialised care for people with CD						
Number of family planning services						
Number of preconception services						
Number of services providing prenatal care						
Number of services providing newborn care						
Number of facilities providing genetic services						
Number of laboratories providing cytogenetics						
Number of laboratories providing molecular genetics						
Number of laboratories providing biochemical tests for genetics						
Number of facilities for safe terminations of pregnancies for fetal defects						

PPP = purchasing power parity

GDP = gross domestic product

SBA = skilled birth attendant

CD = congenital disorders

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 Congenital Rubella Syndrome  
 RUB Epidemiology 1.1: Country epidemiology

Epidemiological indicator	Your estimates	Range	PHGDB minimum estimates	Chosen estimates	Range	Source
<b>Year of estimate</b>						
<b>Prevalence at birth and by age-group (/1000)</b>						
Live birth prevalence (LB)						
Stillbirth prevalence (SB)						
Total birth prevalence (LB+SB)						
<b>All age groups</b>						
<1 year olds						
1-4 year olds						
5-14 year olds						
15-44 year olds						
45+ year olds						
<b>Number of cases by age group</b>						
Annual live births						
<b>All age groups</b>						
<1 year olds						
1-4 year olds						
5-14 year olds						
15-44 year olds						
45+ year olds						
<b>% cases by level of impairment</b>						
No or minor disability						
Moderate disability						
Severe disability						
<b>Mortality and morbidity</b>						
Mean life expectancy (yrs)						
No. deaths < 1yr						
No. deaths 1-4 yrs						
No. deaths < 5 yrs						
Infant mortality / 1000 LB						
Under-5 mortality / 1000 LB						
Years of life lost						

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 Congenital Rubella Syndrome  
 RUB Epidemiology 1.2: International comparison

Epidemiological indicator	Your chosen estimates	Comparison		
		Country	Region	World
<b>Prevalence at birth and by age-group (/1000 people)</b>			<b>(North Africa / Middle East)</b>	
Live birth prevalence (LB)				
Stillbirth prevalence (SB)				
Total birth prevalence (LB+SB)				
<b>All age groups</b>				
<1 year olds				
1-4 year olds				
5-14 year olds				
15-44 year olds				
45+ year olds				
<b>Number of cases by age-group</b>				
Annual live births				
<b>All age groups</b>				
<1 year olds				
1-4 year olds				
5-14 year olds				
15-44 year olds				
45+ year olds				
<b>% cases by level of impairment</b>				
No or minor disability				
Moderate disability				
Severe disability				
<b>Mortality and morbidity</b>				
Mean life expectancy (yrs)				
No. deaths < 1yr				
No. deaths 1-4 yrs				
No. deaths < 5 yrs				
Infant mortality / 1000 LB				
Under-5 mortality / 1000 LB				
Years of life lost				

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Congenital Rubella Syndrome

RUB Epidemiology 1.3: Country epidemiology for rubella

Epidemiological indicator	Your estimates	Range	Comparison		
			Country	Africa Middle East)	World
Rubella immunisation coverage (%)			99		
Reported number of rubella cases			0		
Reported number of congenital rubella syndrome cases			4		
Live birth prevalence (LB)					
Stillbirth prevalence (SB)					
Data year			2012		



## Bahrain

## Congenital Rubella Syndrome

## RUB Epidemiology 2.1: Data on affected pregnancies: Research studies

Study author, year, site	Sample size	Study quality and representativeness	Main findings

Based on the studies listed above (or in section RUB-E2.1 of the Tool), enter the best estimates for the prevalence of affected births, stillbirths and terminations of pregnancy in the country, and a range of values to reflect uncertainty or within-country variation.

If studies are not representative of the national population you may need to weight your data (see the Guide for explanation on weighting and help with the calculations).

Estimates for the total country/territory	Number of affected live births	LB prevalence / 1000 TB	Comments
Best estimate			
Lower estimate			
Higher estimate			
Estimates for the total country/territory	Number of affected stillbirths	SB prevalence / 1000 TB	Comments
Best estimate			
Lower estimate			
Higher estimate			
Estimates for the total country/territory	Number of terminations of pregnancy due to condition	ToP / 1000 TB	Comments
Best estimate			
Lower estimate			
Higher estimate			

TB = total births (live births + stillbirths); ToP = termination of pregnancy

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## Congenital Rubella Syndrome

## RUB Epidemiology 2.2: Data on affected pregnancies: Surveillance

Based on surveillance data, enter the best estimates for the prevalence of the condition in live births, stillbirths and terminations of pregnancy. Give a range of values to reflect uncertainty and within-country variation, and use comments for information on data quality, uncertainty and representativeness.

If studies are not representative of the national population you may need to weight your data (see the Guide for explanation on weighting and help with the calculations).

Estimates for the total country/territory	Number of affected live births	Birth prevalence / 1000 TB	Comments
Best estimate			
Lower estimate			
Higher estimate			

Estimates for the total country/territory	Number of affected stillbirths	Stillbirth prevalence / 1000 TB	Comments
Best estimate			
Lower estimate			
Higher estimate			
Estimates for the total country/territory	Number of terminations of pregnancy due to condition	ToP / 1000 TB	Comments
Best estimate			
Lower estimate			
Higher estimate			

TB = total births (live births + stillbirths); ToP = termination of pregnancy

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Congenital Rubella Syndrome

RUB Epidemiology 2.3: Data on affected pregnancies: Other sources

	Source 1:	Source 2:	Notes
Enter year and source of data – use last year with information available.			
<b>Basic Numbers</b>			
Number of affected live births / year, from data source			
Total number of live births / year, from data source			
Number of affected still births / year, from data source			
Total number of stillbirths / year, from data source			
Number of ToP for affected fetus / year from data source			
Total number of affected births / year (live and still)	0	0	0 Number of affected live births + Number of affected still births
Total number of births / year, from data source	0	0	0 Total number of live births + Total number of still births
Total number of ToP / year, from data source			
Total number of women aged 15-44			
<b>Live birth prevalence: recorded and estimated</b>			
Recorded live birth prevalence (affected recorded live births / 1000 recorded total births)	#DIV/0!	#DIV/0!	
Estimated completeness of recording: what proportion of true affected live births in your data source were recorded?			Range: 0 to 1
Estimated coverage of recorded live births (number of recorded live births / total live births in country or territory)			Range: 0 to 1
Estimated live birth prevalence (recorded prevalence / completeness)	#DIV/0!	#DIV/0!	
Estimated true number of affected live births in data source (number of recorded affected live births / completeness)	#DIV/0!	#DIV/0!	
Estimated number of affected live births in total population (number of affected live births from data source / (coverage x completeness))	#DIV/0!	#DIV/0!	
<b>Stillbirth prevalence: recorded and estimated</b>			
Recorded stillbirth prevalence (affected recorded still births / 1000 recorded total births)	#DIV/0!	#DIV/0!	
Estimated completeness of recording: what proportion of true affected stillbirths in your data source were recorded?			Range: 0 to 1
Estimated coverage of recorded stillbirths (number of recorded still births / total still births in country or territory)			Range: 0 to 1
Estimated stillbirth prevalence (recorded prevalence / completeness)	#DIV/0!	#DIV/0!	
Estimated true number of affected stillbirths in data source (number of recorded affected still births / completeness)	#DIV/0!	#DIV/0!	
Estimated number of affected stillbirths in total population (number of affected still births from data source / (coverage x completeness))	#DIV/0!	#DIV/0!	

<b>ToP prevalence: recorded and estimated</b>		
Recorded ToP prevalence (ToP in affected fetuses / 1000 women aged 15-44)	#DIV/0!	#DIV/0!
Estimated completeness of recording: what proportion of true affected pregnancy terminations in your data source were recorded?		
Estimated coverage of recorded ToP (number of recorded ToP / total ToP in country or territory)		
Estimated ToP prevalence (recorded prevalence / estimated completeness)	#DIV/0!	#DIV/0!
Estimated true number of ToP in data source (number of recorded ToP / completeness)	#DIV/0!	#DIV/0!
Estimated number of ToP in total population (number of ToP from data source / (coverage x completeness))	#DIV/0!	#DIV/0!

Range: 0 to 1

Range: 0 to 1

Based on the sources above, enter the best prevalence estimates for your population, and a range of values to reflect uncertainty of estimates and within country variation.

If studies are not representative of the national population you may need to weight your data (see the Guide for explanation on weighting and help with the calculations).

Estimates for the whole country/territory	Number of affected live births	LB prevalence / 1000 TB
Best estimate		
Lower estimate		
Higher estimate		
Estimates for the whole country/territory	Number of affected still births	SB prevalence / 1000 TB
Best estimate		
Lower estimate		
Higher estimate		
Estimates for the whole country/territory	Number of ToP due to condition	ToP /1000 TB
Best estimate		
Lower estimate		
Higher estimate		

TB = total births (live births + stillbirths); ToP = termination of pregnancy

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## Congenital Rubella Syndrome

## RUB Epidemiology 2.4: Summary of affected pregnancies

Indicator	Your estimates	Range	PHGDB minimum estimates	Chosen estimates	Range	Source
Number of annual affected live births						
Annual birth prevalence / 1000 TB						
Number of annual affected still births						
Annual Stillbirth prevalence / 1000 TB						
Number of terminations of pregnancy in affected fetuses /year						
Affected ToP / 1000 women 15-44/ year						

If there are specific sub-types of condition, you can repeat this exercise below. However, you should consider (a) whether sub-types would have different implications for advocacy, and (b) whether a sub-type might require a full, specific needs assessment.

TB = total births (live births + stillbirths); ToP = termination of pregnancy

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## Congenital Rubella Syndrome

## RUB Epidemiology 2.5: Sub-population variation in affected pregnancies

If the birth prevalence rates vary by population sub-group (e.g. geographically or by another factor), indicate any population groups with different prevalence estimates from the whole population and describe reasons for variation. If a group is substantially different from the general population, you may wish to conduct a needs assessment for that group alone.

Population sub-group	Number of affected live births	LB prevalence / 1000 TB	Reason for variation

Population sub-group	Number of affected stillbirths	SB prevalence / 1000 TB	Reason for variation

Population sub-group	Number of ToP in affected pregnancies	ToP prevalence / 1000 TB	Reason for variation

TB = total births (live births + stillbirths); ToP = termination of pregnancy

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Congenital Rubella Syndrome

RUB Epidemiology 3.1: Mortality data: Research studies

Source, year, site	Sample size	Age group	Study quality and representativeness	Main findings

Based on the studies above, enter the best estimates for the specific mortality by age-group e.g. infant, under-5s, etc., as appropriate, and a range of values to reflect uncertainty of estimates and within-country variation.

If studies are not representative of the national population you may need to weight your data (see the Guide for explanation on weighting and help with the calculations).

Mortality estimates	Number of deaths	Ratio (deaths / 1000 LB)	Comments
<b>Neonatal group (&lt;28 days)</b>			
Best estimate			
Lower estimate			
Higher estimate			
<b>Infant group (&lt;1 year)</b>			
Best estimate			
Lower estimate			
Higher estimate			
<b>Under-5 group (&lt;5 years)</b>			
Best estimate			
Lower estimate			
Higher estimate			
<b>Other age group:</b>			
Best estimate			
Lower estimate			
Higher estimate			

LB = live births

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RUB Epidemiology 3.2: Mortality data: Vital registration data

Fill in the blank cells based on your vital registration data.

Enter year and source of data	
	Registered data
Total registered live births	
Registered condition-specific neonatal deaths (first 28 days of life)	
Registered condition-specific infant deaths (first year of life)	
Registered condition-specific under-5 deaths (first 5 years of life)	
Registered condition-specific neonatal mortality ratio (condition-specific neonatal deaths / (Total registered live births / 1000))	#DIV/0!
Registered condition-specific infant mortality ((condition-specific infant deaths / (Total registered live births / 1000))	#DIV/0!
Registered condition-specific under-5 mortality (condition-specific under-5 deaths / (Total registered live births / 1000))	#DIV/0!

Adjustment for under-ascertainment of cause of death and sub-registration of deaths: Enter estimates in the highlighted cells. It is not always possible to adjust the estimates, in which case you may give the value '1', accepting that the estimates in these cases will usually be biased towards low values. (Or you may move to the next section.) It is assumed that under-ascertainment is stable across age-groups; if ascertainment varies by age-group, you could use separate estimates for each age group.

Estimated completeness of recording: what proportion of deaths in affected persons were registered as such?		Range: 0 to 1
Population coverage: what proportion of the total country/territory population is covered by the vital registration?		Range: 0 to 1
Death ascertainment (population coverage x completeness)	0	
Estimated values for the total country/ territory population		
Estimated number of live births in total population (Total registered live births/population coverage)	#DIV/0!	
Estimated number of neonatal deaths in total population (number of deaths registered in neonatal period / ascertainment)	#DIV/0!	
Estimated number of infant deaths in total population (number of deaths registered in first year of life / ascertainment)	#DIV/0!	
Estimated number of under-5 deaths in total population (number of deaths registered in under-5s / ascertainment)	#DIV/0!	
Estimated neonatal mortality ratio (estimated neonatal deaths / 1000 live births)	#DIV/0!	
Estimated infant mortality ratio (estimated infant deaths / 1000 live births)	#DIV/0!	
Estimated under-5 mortality ratio (estimated under-5 deaths / 1000 live births)	#DIV/0!	



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## Congenital Rubella Syndrome

## RUB Epidemiology 3.3: Mortality data: Other sources

Source, year, site	Sample size	Age group	Data quality and representativeness	Main findings

Based on data from the sources above, enter estimates for the disease-specific deaths and mortality rates in your population.

If studies are not representative of the national population you may need to weight your data (see the Guide for explanation on weighting and help with the calculations).

Estimates for the total country/territory	Neonatal mortality		Infant mortality		Under-5 mortality	
	Value	Ratio/1000 LB	Value	Ratio/1000 LB	Value	Ratio/1000 LB
Best estimate						
Lower estimate						
Higher estimate						

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**RUB Epidemiology 3.4: Summary mortality estimates**

Indicator	Your estimates	Range	PHGDB minimum estimates	Chosen estimates	Range	Source
Year of data collection						
Number of annual deaths in affected persons						
Number of annual live births (in 1000s)						
Number of annual affected neonatal deaths						
Number of affected neonatal deaths / 1000 LB						
Number of annual affected infant deaths						
Number of affected infant deaths / 1000 LB						
Number of annual affected under-5 deaths						
Number of affected under-5 deaths / 1000 LB						
Mean life expectancy at birth in affected people						
Other indicators (e.g. survival following surgical procedure, etc)						

If there are specific sub-types of condition, you can repeat this exercise (copy table and paste below). However, you should consider (a) whether sub-types would have different implications for advocacy, and (b) whether a sub-type might require a full, specific needs assessment.

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RUB Epidemiology 3.5: Sub-population variation in mortality

Age group: neonatal Population sub-group	Number of deaths in affected persons	Cause-specific, group-specific neonatal mortality ratio / 1000 LB	Reason for variation

Age group: infant Population sub-group	Number of deaths in affected persons	Cause-specific, group-specific infant mortality ratio / 1000 LB	Reason for variation

Age group: under 5 Population sub-group	Number of deaths in affected persons	Cause-specific, group-specific under-5 mortality ratio / 1000 LB	Reason for variation

Age group: ..... Population sub-group	Number of deaths in affected persons	Cause-specific, group-specific mortality ratio / 1000 population	Reason for variation

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**RUB Epidemiology 4.1: Population prevalence: Research studies**

Study, year, site	Sample size	Study quality and representativeness	Main findings

Based on the studies above, enter the best estimates for population prevalence, and a range of values to reflect uncertainty of estimates and within-country variation.

If studies are not representative of the national population you may need to weight your data (see the Guide for explanation on weighting and help with the calculations).

	Prevalence / 1000 persons	Range	Comments
Best estimate			
Lower estimate			
Higher estimate			

If there are specific sub-types of condition, you can repeat this exercise (copy table and paste below). However, you should consider (a) whether sub-types would have different implications for advocacy, and (b) whether a sub-type might require a full, specific needs assessment.

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**RUB Epidemiology 4.2: Population prevalence: Other sources**

Source, year, site	Sample size	Data quality and representativeness	Main findings

Based on data from the sources above, enter estimates for the disease-specific deaths and mortality rates in your population.

If studies are not representative of the national population you may need to weight your data (see the Guide for explanation on weighting and help with the calculations).

	Prevalence / 1000 persons	Range	Comments
Best estimate			
Lower estimate			
Higher estimate			

If there are specific sub-types of condition, you can repeat this exercise (copy table and paste below). However, you should consider (a) whether sub-types would have different implications for advocacy, and (b) whether a sub-type might require a full, specific needs assessment.

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## RUB Epidemiology 4.3: Summary of population prevalence

Source of estimates	Estimated total population number of affected persons	Range	Estimated total population prevalence / 1000 persons	Range
1				
2				
3				
4				
5				
PHGDB				
Chosen estimates				

If there are specific sub-types of condition, you can repeat this exercise (copy table and paste below). However, you should consider (a) whether sub-types would have different implications for advocacy, and (b) whether a sub-type might require a full, specific needs assessment.

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RUB Epidemiology 4.4: Sub-population prevalence variation

Population sub-group	Number of affected people	Total number of people in population sub-group	Population prevalence per 1000 people	Reason for variation
			#DIV/0!	
			#DIV/0!	
			#DIV/0!	
			#DIV/0!	

If there are specific sub-types of condition, you can repeat this exercise (copy table and paste below). However, you should consider (a) whether sub-types would have different implications for advocacy, and (b) whether a sub-type might require a full, specific needs assessment.

Formula in column D:  $\text{Number of affected people} / (\text{Total number of people in population subgroup} / 1000)$

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## Congenital Rubella Syndrome

## RUB Intervention 1: Effect of immunisation on rubella incidence in women

Baseline prevalence of rubella in women aged 15-44 per 1000		
<b>Variables</b>		
Coverage of rubella immunisation		Range: 0 to 1 Range: 0 to 1
Proportion of women of reproductive age receiving immunisation		Range: 0 to 1
Effectiveness of immunisation (proportion of cases prevented among those immunised)		
<b>Results</b>		
% prevalence reduction due to immunisation <sup>1</sup>		0%
Prevalence reduction due to immunisation, per 1000 women aged 15-44 <sup>2</sup>		0.000
Final prevalence of rubella in women aged 15-44 per 1000 <sup>3</sup>		0.000

TB = total births (live births + still births)

<sup>1</sup> (Coverage of immunisation X Proportion of women receiving immunisation) X Effectiveness of immunisation

<sup>2</sup> % prevalence reduction due to immunisation X Baseline prevalence of rubella in women

<sup>3</sup> Baseline prevalence of rubella in women – Prevalence reduction due to immunisation



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Congenital Rubella Syndrome

RUB Intervention 2: Effect of maternal rubella diagnosis and ToP on congenital rubella

Baseline prevalence: rubella-affected pregnancies per 1000 TB		
<b>Variables</b>		
Proportion of rubella cases in pregnancy that are diagnosed		Range: 0 to 1
Proportion of diagnosed cases ending in pregnancy termination		Range: 0 to 1
<b>Results</b>		
% prevalence reduction due to PND & pregnancy termination		0%
Prevalence reduction due to PND & pregnancy termination, per 1000 TB		0.000
Final prevalence of congenital rubella after PND & pregnancy termination, per 1000 TB		0.000

PND = prenatal diagnosis

TB = total births (live births + still births)

ToP = termination of pregnancy

## Bahrain

## Congenital Rubella Syndrome

## RUB Needs Assessment 1: Quantitative baseline

Table RUB-NA1a Burden of Congenital Rubella Syndrome in pregnancy, at birth and at population level

Indicator	Chosen estimates			Notes
	Number (n)	n/1000 TB	Range of prevalence (/1000 TB)	
Annual affected live births (LB)	0	0	0	Drawn from sheet E2.4
Annual affected stillbirths (SB)	0	0	0	Drawn from sheet E2.4
Annual affected births (LB+SB)	0	0	0	Drawn from sheet E2.4
Annual affected persons (all age groups)	0	0	0	Drawn from sheet E1.1

Table RUB-NA1b Congenital Rubella Syndrome mortality indicators

Indicator	Chosen estimates			Notes
	Number (n)	n/1000 LB	Range of prevalence (/1000 TB)	
Annual overall mortality	0	0	0	Drawn from sheet E3.4
Annual neonatal mortality	0	0	0	Drawn from sheet E3.4
Annual infant mortality	0	0	0	Drawn from sheet E3.4
Annual under-5 mortality	0	0	0	Drawn from sheet E3.4
Mean life expectancy at birth among affected people	0	0	0	Drawn from sheet E3.4

TB = total births (live births + stillbirths)

## Bahrain

## Congenital Rubella Syndrome

## RUB Needs Assessment 3: Quantitative assessment of interventions

Table RUB-NA3a	Estimated prevalence in the absence of interventions for Congenital Rubella Syndrome	
Indicator	Number (n)	Prevalence (n/1000)
Potential live births		
Potential still births		

Table RUB-NA3b	Current situation in relation to interventions before birth		
Intervention	Coverage (%)	Cases averted (n)	Cases averted/1000 LB
Effect of family planning, education			
Effect of vaccination			
Effect of prenatal diagnosis			
Effect of termination of pregnancy			
Overall effect			

Table RUB-NA3c	Target situation in relation to interventions before birth		
Intervention	Coverage (%)	Cases averted (n)	Cases averted/1000 LB
Effect of family planning, education			
Effect of vaccination			
Effect of prenatal diagnosis			
Effect of termination of pregnancy			
Overall effect			

Table RUB-NA3d	Current situation in relation to interventions after birth		
Intervention	Coverage (%)	Cases managed (n)	Cases managed/1000 LB
Effect of newborn diagnosis			
Effect of treatment			
Effect of social care and support			
Effect of rehabilitation			
Overall effect			

Table RUB-NA3e	Target situation in relation to interventions after birth		
Intervention	Coverage (%)	Cases managed (n)	Cases managed/1000 LB
Effect of newborn diagnosis			
Effect of surgical treatment			
Effect of social care and support			
Effect of rehabilitation			
Overall effect			

Table RUB-NA3f	Current and desired outcomes			
	Current situation		Target situation	
Indicator	Annual number (n)	Incidence (n/1000)	Annual number (n)	Incidence (n/1000)
<b>Estimated affected pregnancies</b>				
Live births (LB)	0	0		
Still births (SB)	0	0		
All births (LB+SB)	0	0		
<b>Estimated population prevalence</b>				
All age groups				
<b>Estimated mortality</b>				
Neonatal deaths	0	0		
Infant deaths	0	0		
Under-5 deaths	0	0		