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Concept, Methodology and Next Steps for

Child-Centred Equity Analysis

UNICEF Iraq CO

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Background: UNICEF Mission, Equity Focus & Assumptions

UNICEF is mandated by the United Nations General Assembly to advocate for the protection of children's rights, to help meet their basic needs and to expand their opportunities to reach their full potential. UNICEF defines *Equity for Children* as the situation where all children have an opportunity to survive, develop, and reach their full potential, without discrimination, bias, or favouritism. This interpretation is consistent with the Convention on the Rights of the Child (CRC), which guarantees the fundamental rights of every child, regardless of gender, race, religious beliefs, income, physical attributes, geographical location, or other status.[1]

We know that national averages often hide wide disparities within certain geographic areas, communities, households and individuals. UNICEF is committed to strengthening and focusing efforts towards ensuring that *all* children have an opportunity to survive, develop, and reach their full potential, without discrimination, bias, or favouritism. This is what we call an *Equity-based approach*. The relevance of achieving the goals with equity has been highlighted by UNICEF[2] and other international organizations[3], and recently it has also been revealed that an equity based approach can help narrowing the existing gaps and even accelerate the achievement of those goals.[4] An equity based approach is therefore proposed to be *Right in Principle*: due to the moral imperative to respond to most disadvantaged and in-need children; *Right in Logic*: because it brings higher returns to investments in improving children's lives; and *Right in Practice*: because it accelerates development towards attainment of national development targets.

Based on these UNICEF global propositions, we put forward here three complementary assumptions:

1. Multiple Deprivations: because these deprivations are interconnected and often related to common –and interacting- factors, deprivations will not be evenly or randomly distributed among children, but simultaneously present in the *same* children. Therefore, we expect children to face multiple deprivations at the *same* time and concentrate in themselves *most* of the deprivations.
2. Life-cycle Stages: children have different needs during the different stages of their lives, and therefore the deprivations will be different for a 9 months old infant (e.g. not exclusively breastfed or not fully immunized) than for a 14 year-old adolescent (e.g. involved in child labour or not attending secondary school).
3. Intra-stage (horizontal) and Inter-stage (vertical) Effect: the interconnectedness of deprivations (e.g. child labour and school performance, or hygiene practices and health) means that the more deprivations a child concentrates within a life-cycle stage (horizontal effect intra-stage), the worse the child's situation will be within that stage. Additionally, the better –or worse- a child finishes one stage (e.g. a well nourished and fully immunized infant versus the opposite) the better –or worse- the child's chances of finishing the next life-cycle stage to her full potential, and so on (vertical effect inter-stage).

Finally, and in line with the global equity focus, we would expect a "spill-over effect": if we find that certain children *are* concentrating the deprivations faced by children in the country through multiple deprivations, *and* we find that these children are concentrating in certain areas and certain groups, by reaching the most deprived children, the less deprived are expected to benefit from an overall improvement in conditions.

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[1] UNICEF, NYHQ. November 2010. Re-focusing on Equity: Questions & Answers (p.4)

[2] Douglas, Carolyn, Gaspar Fajth, and Katherine Holland. 2007. *Global Study on Child Poverty and Disparities 2007-2008*. New York: UNICEF Global Study. Division of Policy and Planning.

[3] World Development Report 2006 'Equity and Development', World Bank 2006; Save the Children Fund. 2010. "A Fair Chance at Life: Why Equity Matters for Child Mortality." http://www.savethechildren.org.uk/en/docs/saving-childrens-lives.pdf; Save the Children Fund. 2008. "Saving the Children's Lives: Why Equity Matters." Available at: http://www.savethechildren.org.uk/en/docs/saving-childrens-lives.pdf

[4] UNICEF, NYHQ. September 2010. "Narrowing the Gaps to Meet the Goals".

Purpose & Outline

The purpose of this concept note is to present and propose a methodology for a quantitative analysis which is coherent with and corresponds to the global equity focus and our complementary assumptions outlined above. The quantitative methodology presented here essentially is a proposal to quantify through a child-centred approach which children are facing what type –and magnitude- of inequities, and where. It is not a comprehensive Situation Analysis, but merely a component of it. The last section of this note will deal with the next steps planned to take this quantitative analysis towards a comprehensive Situation Analysis. Therefore, this note includes the following sections:

A. Quantitative Analysis Methodology: this section will outline an individual-level quantitative methodology centred on the child to answers the "what" by "who" and "where" questions in terms of deprivations faced at the *same* time by the *same* child, i.e. multiple deprivations.
B. Pilot Quantitative Results for Deprivations on MICS3: this section will present the results obtained in Iraq using the above methodology and UNICEF MICS3 2006 data.
C. Risk Factors and MDG/WFFC Achievement based on Quantitative Analysis: this section will present the risk factors –and their interactions- related to the deprivations, as well as expected achievement for MDG/WFFC targets if we focus on most deprived children.
D. Next Steps: Application to MICS4 Results, Qualitative Analysis and Report: this section will outline the next steps which including applying the methodology to Iraq MICS4 2011 results; implementing a qualitative analysis using the UNICEF SitAn[5] approach, and publish a report on all findings and recommendations to inform policy, programming and advocacy.

The flowchart below shows the complete process from quantitative analysis to the Situation Analysis report. This note will focus on the stage we have currently completed (red arrow). This stage involves development of the proposed methodology for a child-centred equity analysis, as well as the initial results of applying it to MICS3 2006 data. The rest of the stages have been incorporated into the "Next Steps" section at the end of this note. They will include: the validation of our current methodology with partners and experts; the application of the final methodology to up-to-date data (i.e. MICS4 2011); qualitative analysis (causal, roles, gaps) and review (policies, legislation and budgets) using the UNICEF SitAn methodology; and finally the consolidation of findings and recommendations in a Situation Analysis report to used for programming, policy and advocacy interventions.

Finally, all additional technical information and further details that expand on the subjects outlined in the main note will be annexed as necessary.

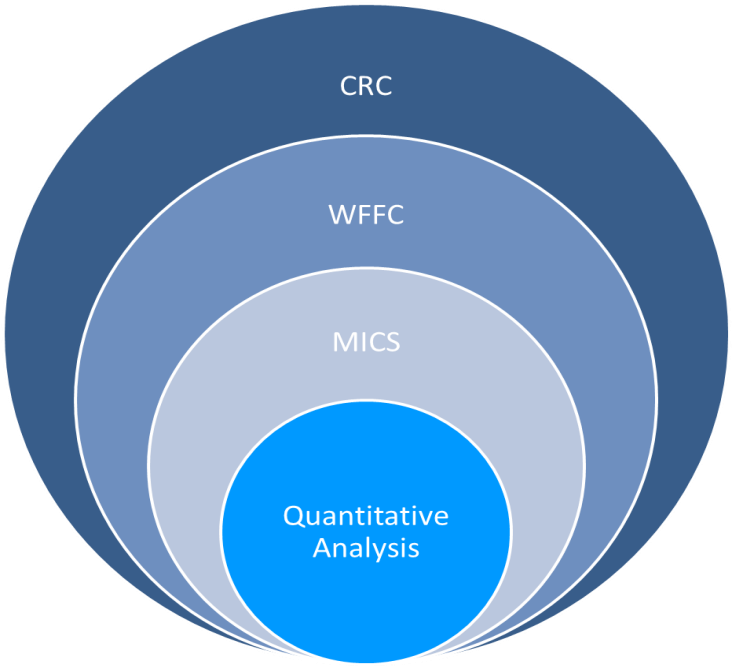
[5] UNICEF supports programme countries to conduct a comprehensive analysis of the situation of children and women within the country programme or national planning cycle. The Situation Analysis is done in preparation for or as an input to the review of the national development plan and poverty reduction strategy. It forms part of the UN contribution to country analytic work, including the Common Country Assessment (CCA). It also supports national reporting to the Child Rights and CEDAW Committee.

A. Child-Centred Approach (Quantitative Methodology)

The quantitative methodology outlined in this section is developed to allow us to identify the following: first, "**what**" i.e. which deprivations, e.g. child labour, lack of access to safe drinking water, etc are faced at the *same* time by each child; second, by "**who**" i.e. which children are facing these deprivations at the same time and what are their –and their households'- characteristics; and "**where**", in which Governorates, Districts, Communities are these children. Through applying this methodology to our available MICS data, we should be able to confirm our initial assumptions regarding the concentration of deprivations –and their interaction- in certain children, communities and geographic areas of the country. Finally, as we will see in the following sections, it should also allow us to explore the relationships between multiple deprivations and multiple risk factors (e.g. poverty, mother's education, urban/rural, sex, etc).

Convention on the Rights of the Child (CRC) and World Fit For Children (WFFC)

UNICEF is guided by the Convention on the Rights of the Child and strives to establish children's rights as enduring ethical principles and international standards of behaviour towards children. Through the United Nations Special Session on Children in May 2002 which culminated in the official adoption, by some 180 nations, of its outcome document, 'A World Fit for Children' (WFFC)[6] we have available an new agenda for - and with - the world's children, which includes 21 specific goals and targets for the next decade. Based on the Child Rights enshrined in the CRC and Optional Protocols, the WFFC document provides us with a comprehensive list of the indicators to assess the status of children in relation to their rights.



In line with UNICEF's mandate and our WFFC goals, as shown in **Figure 1**, the selection of indicators to measure children's deprivation in Iraq has two steps. The first step is the operationalisation of rights enshrined in the CRC to measureable indicators for which we have used the WFFC framework under the assumption that it measures progress towards the commitments of the CRC. The second step is to contextualize the indicator list to those relevant to the country-context, in this case Iraq. For this we have selected from our in-country Multiple Indicators Cluster Survey (MICS) the available indicators for Iraq, in close consultation with country expertise from each one of the four UNICEF sectors: education, health and nutrition, child protection and water and sanitation. Each selected indicator is used to measure a specific "deprivation". We *understand "deprivation" as a violation of one or more of the child rights*. For this purpose we have defined all selected positive indicators negatively (e.g. instead of "primary school attendance", it is "primary school-age out of school"; instead of "access to safe drinking water", it is "lack of access to safe drinking water").

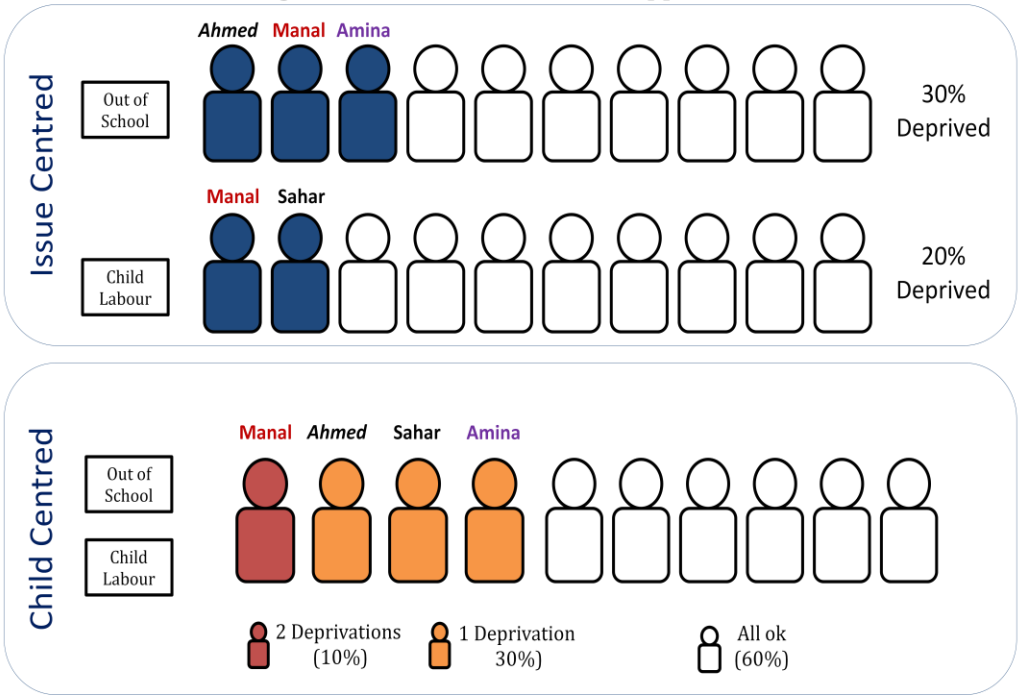
[6] For further information see http://www.unicef.org/specialsession/wffc/

Issue-Centred vs. Child-Centred

Once we have a list of indicators to quantitatively measure the situation of children, we must apply a methodology which allows us to count multiple deprivations on the same child. The traditional way we measure children's deprivations is through an "Issue-Centred" lens. This approach looks at each issue individually by aggregating all children with problems in a specific issue (i.e. facing a deprivation). For example, if we took a specific age range from 6 to 11 years old, we could say "20% of these children are involved in child labour", "30% of these children are out-of-school" and "40% of these children face violent discipline methods". But, how many of these children are facing more than one of these deprivations at the *same* time? With the issue-centred approach, we cannot know this because we measure each deprivation in a silo from the other deprivations.

To identify multiple deprivations we must take a "Child-Centred" approach to our quantitative analysis. In **Figure 2** we see that for the issue-centred approach we know 30% of children are out of school and that 20% of children are working. But we don't know if any of these children are both out of school and working. With a child-centred approach, we count deprivations for each child. *Instead of aggregating children facing each deprivation; we aggregate deprivations faced by each child*. This simple but radical change in our "counting" approach allows us to know in the Figure 2 example which children are both out of school and working. In this example "Manal" is both out of school and working, "Ahmed" and "Amina" are only out of school, and "Sahar" is only working. The remaining 6 children are facing neither of these deprivations.

Figure 2: Issue vs Child Centred Approaches

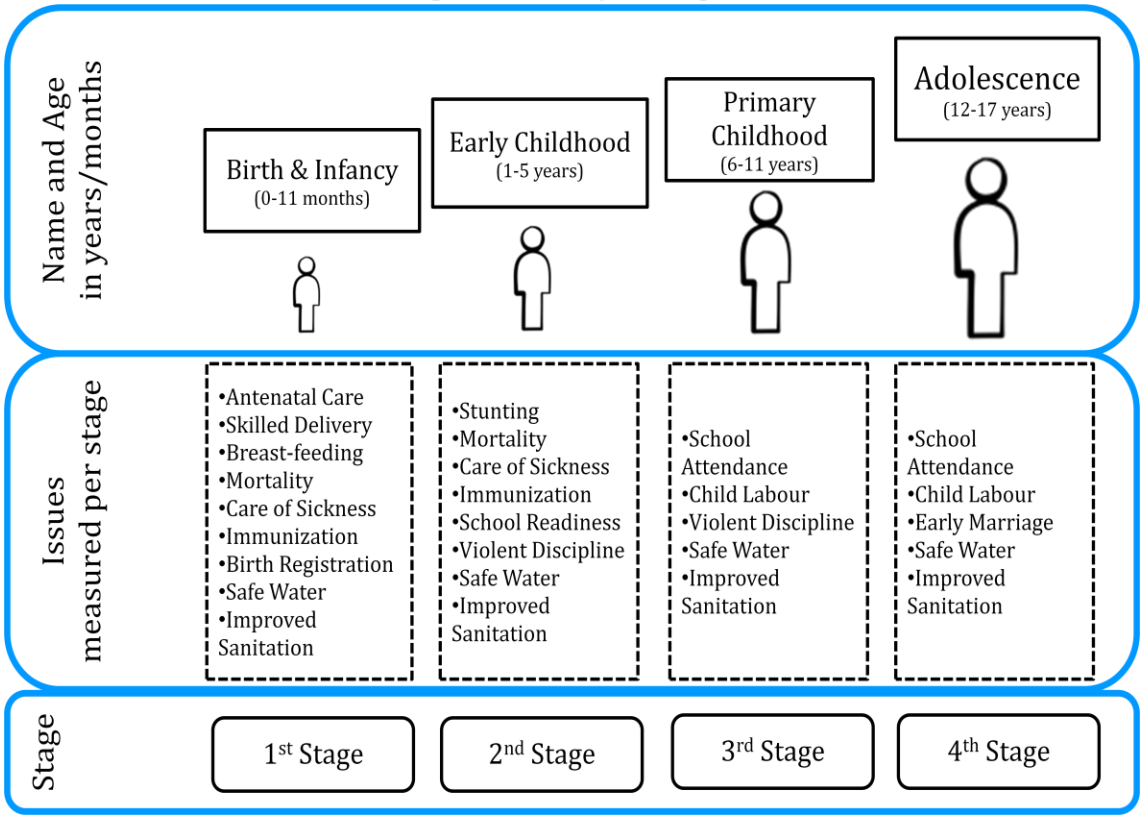


A *child-centred approach* is concerned with multiple deprivations and therefore instead of taking each indicator and measuring every relevant child, it *takes every child and measures him and her against every relevant indicator*.

Child Life-Cycle Stages, Indicators and Deprivation Thresholds

We have now already established which indicators to use. As outlined above, we have used our global WFFC framework and MICS data for the in-country context. We have consolidated a list of 18 indicators[7] from this framework. We have also established that we need to do an individual-level analysis, necessary to measure for each child all relevant indicators, essentially "counting" how many deprivations –and which ones- each child is facing.

Figure 4: Life-Cycle Stages



Now, because *relevant* deprivations are *different* for a 9 month-old infant than for a 14 year-old adolescent, the next step is to determine which indicators to use for which children.

To answer this question we have grouped indicators according to the age-group that they are measure for. Following this criteria, we have grouped the total 29 age-specific indicators into four age groups: Infancy (0-11 months) with 10 indicators; Early Childhood (12-59 months) with 9 indicators; Primary Childhood (6-11 years) with 5 indicators; and Adolescence (12-17 years) with 5 indicators. **Figure 4** shows a summary of each stage with its corresponding indicators. Additionally, following MICS guidelines we have established deprivation thresholds (which value for a certain indicator is considered "deprived" for the child). A full table with all these details is available in the Annex I. A Technical review is planned to decide on a final framework of stages, indicators and deprivation thresholds (see "Next Steps" section).

[7] 18 Indicators in total, with 11 of them repeated across life-cycel stages. For further details see Annex I: Table of Life-Cycle Stages, Indicators and Deprivation Thresholds

Weighting and Number of Deprivations

The number of deprivations a child is facing at the same time are counted with equal weights. There are substantive arguments[8] to justify considering one particular deprivation over another as having a stronger influence on a child's wellbeing. Additionally, we are aware that "deprivation" of –for example- "access to safe water" (service to be delivered, probable cause of health problems) is a different concept than the "deprivation" "stunted growth" (actual consequence of many causes). However, understanding all our identified deprivations as violations of one or more of the child rights, and deriving them from our UNICEF globally adopted principles and frameworks (CRC, CEDAW, MDG, WFFC), we have kept all deprivations with equal weights. Additionally, we have two practical reasons: first, weighting all deprivations equally allows us to interpret and communicate the results in a comprehensible and actionable manner; and second, because we do not aggregate the deprivations into an index, at any given point, for any given group or geographic area, we can describe precisely *which* deprivations or *pattern* of deprivations those specific children are facing.

The four life-cycle stages also include at the current stage different number of deprivations each (10, 9, 5 and 5 indicators from birth to adolescence). This is due to the higher availability of relevant indicators for the younger life-cycle stages in the MICS in Iraq. This can have an effect on certain aspects of the results, as younger children (with more indicators in their stage) can have a higher chance of being multiple deprived.

Nevertheless, both the topic of the number of deprivations, as well as the weighting of indicators (and its interpretation and communication implications) are points to be considered during the planned technical review of the quantitative methodology (see "Next Steps" section).

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[8] *See for example*: Alkire, Sabina, and Maria Emman Santos. 2010. "Acute Multidimensional Poverty: A New Index for Developing Countries". University of Oxford: Oxford Poverty and Human Development Initiative.

B. Pilot Quantitative Results: Deprivations in MICS3 2006

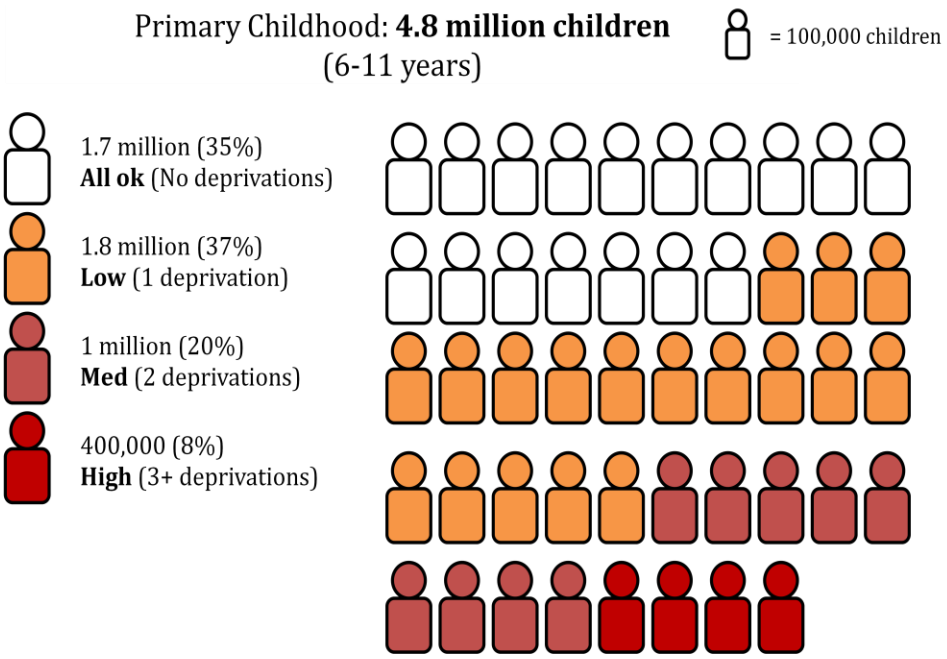
This section will outline the quantitative results for deprivations using Iraq MICS3 2006 data applying the above methodology. The results presented will include the following sub-sections: detailed results for the third stage (6-11 year-olds) as example; gender-differentiated results for the example third stage; overall percentage of deprived children and concentration of deprivation for each life-cycle stage; results –and relationship- for mortality and multiple deprivations for infancy and under-5; geographic area prioritization; and overview summary of all children results.

Primary Childhood Stage (6-11 yrs) Deprivations, Prevalence and Concentration

We have applied the above methodology to Iraq MICS3 2006 data and have found that our assumption that deprivations will concentrate (multiple at the same time) in certain children, and *not* random or evenly distributed, holds true. **Figure 5** is a description of the Primary Childhood life-cycle stage (6-11 year-olds) results. There are approximately 4.8 million 6-11 year-olds children in Iraq. Out of these, 1.7 million (35%) are facing no deprivations at all. Another 1.8 million (37%) are facing just one of the measured deprivations. 1 million of them (20%) are facing 2 deprivations. And 400,000 (8%) are facing 3 or more deprivations. The fact that 72% have just 1 or no deprivation at all, should mean that the bottom 28% (High + Med) will concentrate highgest prevalence for any specific indicators, as well as most of the problems of the age group. Is this the case?

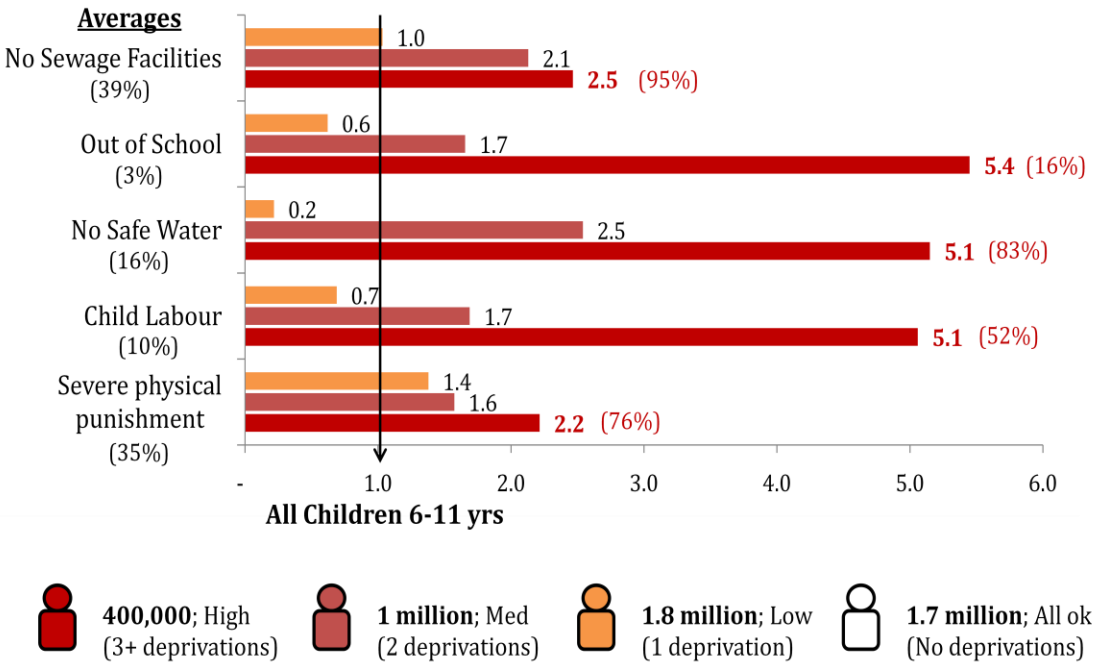
The first step is to compare the average prevalence of any deprivation in the age group (e.g. child labour overall %) and the prevalence of the multiple deprived specifically.

Figure 5: Actual Results from 6-11yrs Stage



We have found that there is a strong correlation between multiple deprivations and being affected by any specific deprivation. **Figure 6** shows that multiple deprived children have many times higher prevalence rates of any particular deprivation than the average. For the 6-11 year-olds stage, highly multiple deprived children (3+ deprivations) have prevalence rates of out of school, child labour and unsafe water which are over 5 times the average. This means for example that while 10% of all 6-11 yrs children are involved in child labour, when we look at the high multiple deprivation group of children, we find that 52% of them are involved in child labour, 5 times higher.

Figure 6: Ratio of Specific Deprivations for 6-11yrs



The second step is to see how much of the problem is concentrated in the multiple deprived children, i.e. out of all children facing a specific deprivation (e.g. out of all children involved in child labour), how many are in the multiple deprived groups (the bottom 28% in the case of 6-11 year-olds). We have found that most deprivations are concentrated in this bottom multiple deprived group.

Figure 7: Concentration of Deprivations for 6-11yrs

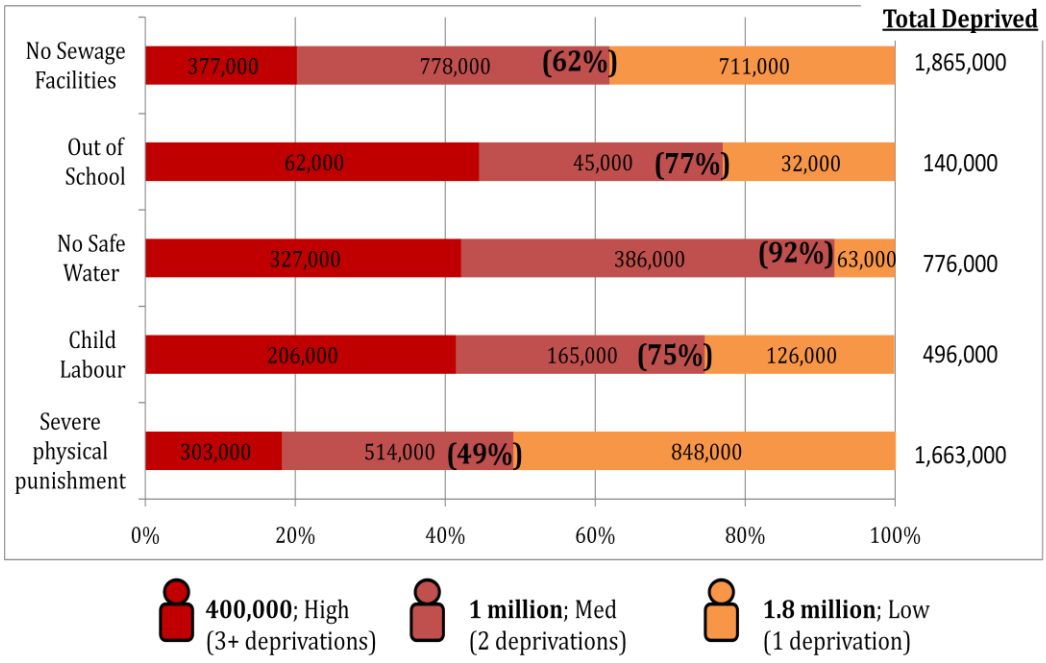


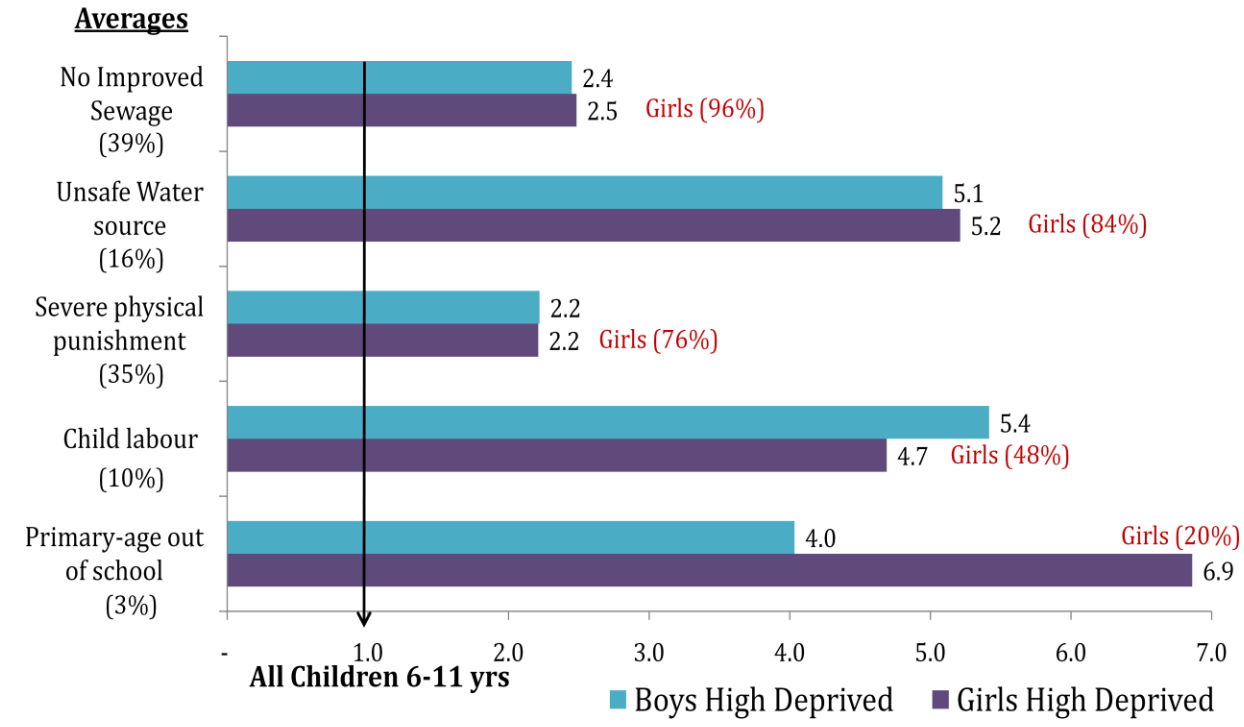
Figure 7 shows that even though the "high" (3+ deprivations) and "med" (2 deprivations) groups only represent 28% of the children 6-11 years old, they concentrate 75% of all children involved in child labour, 77% of all children out of school and 92% of all children without safe water. They also concentrate 62% of all children without access to sewage facilities and 49% of children facing severe physical punishment. Both access to sewage and violent discipline are widely spread deprivations across the country, clearly shown in

Figure 7 by the number of children facing them, 1.8 million for sewage and 1.6 million for violent discipline. Additionally, the "low" deprivation group will only be facing just one of these deprivations at any given time, while the "med" and "high" groups will be facing at least 2, 3 or all of them at the same time. Where deprivations are not widely spread (out of school, water and labour), they are highly (72% to 92%) concentrated in the multiple deprived children.

Patterns of Deprivations by Sex in Primary Childhood Stage (6-11 year-olds)

The patterns of deprivations, i.e. which deprivations specifically add up to "multiple" to make a child multiple deprived, are different across different children profiles. Though this topic will be discussed in detail in the following section, due to the particular importance mainstreaming gender into our analysis, we present here an example of the breakdown for the 6-11 year-olds stage by sex. Because we are measuring at the individual level (each child separately), the methodology allows us to differentiate between boys and girls. Though we find that, when multiple deprived, both are far worse off than the average child, boys are more likely to be multiple deprived due to child labour and girls due to being out of primary school. For example, while only 3% of all children 6-11 years old are out of primary school, 20% of high deprived girls are out of primary school, almost a 7 times higher prevalence. We found no strong differences between multiple deprived boys and girls neither in terms of access to services (water and sanitation) nor regarding violent discipline.

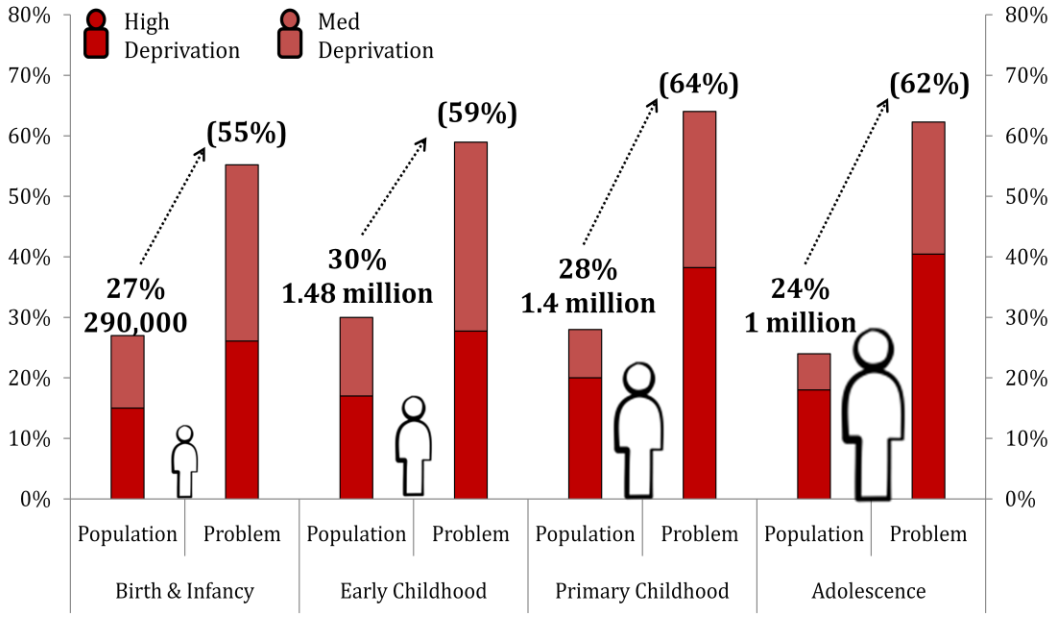
Figure 8: Ratio of Deprivations for Gender



Overall Deprivations and Concentrations for each Life-Cycle Stage

The results shown above for the example of the third stage, Primary Childhood (6-11 yrs) are consistent across all four life-cycle stages. As we see in **Figure 8**, when we count all deprivations and see if they fall in the multiple deprived groups, we see that between one quarter and a third (24% - 30%) of children in each stage are multiple deprived, and they concentrate 55% to 64% of all deprivations. It should be noted that this total average includes deprivations which are widely spread across the country (such as the sewage and violent discipline examples of the 6-11 yrs stage), and if we exclude them, the percentages of concentration in the multiple deprived rise to averages ranging from 75% to over 90%. This means that when a specific deprivation is *not* faced by *most* children in Iraq, the vast *majority* of these deprivations will be found in the bottom third of the children, the multiple deprived. For specific information on this, all details for deprivation levels and concentrations for each indicator within each life-cycle stage can be found in Annex II "MICS3 Deprivations and Concentration per Life-Cycle Stage".

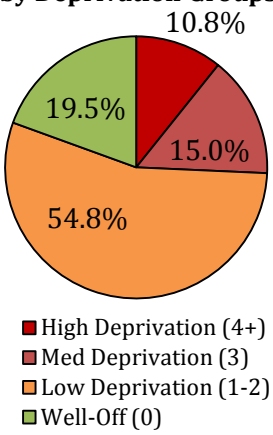
Figure 8: Results for All Stages



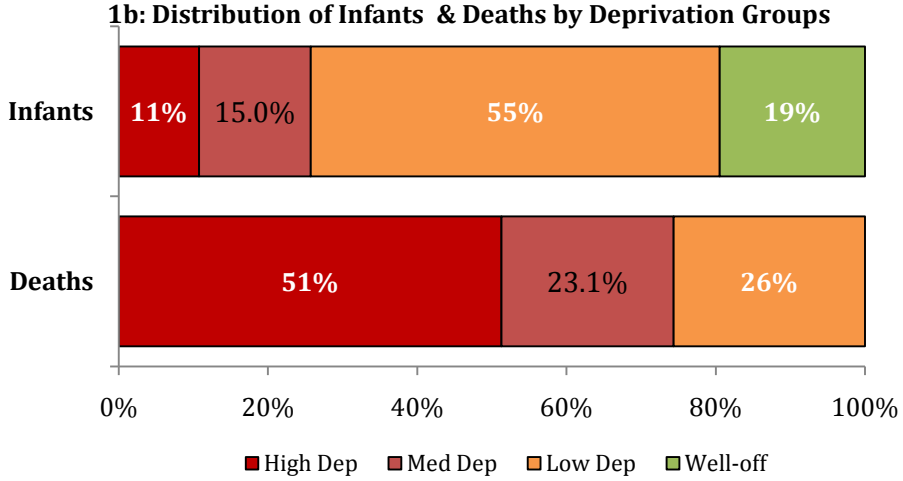
Child Mortality and Multiple Deprivations (Infancy 0-11 months)

Mortality is obviously the first and total deprivation. Once a child dies, she has been denied the first and all of her rights. A dead child is without doubt the most deprived child. Because all our analysis is necessarily based on information about children who have already survived, we have incorporated mortality by counting as deprived on a "mortality" indicator any child in whose household another child has died of the same age-group in the previous 5 years. This means that an infant (0-11 months) will be deprived of the "mortality" indicator if another child between 0-11 months has died in her household in the previous 5 years to the survey. For under 5 year-olds, the same logic applies but within the 12-59 months age range. The hypothesis behind this decision has been that if a child has died recently in a household, the other children in the household of that same age group face a higher vulnerability of also facing the same risks of mortality, in comparison to same age group children in other households where no child has died.

1a: Distribution of Infants by Deprivation Groups



1b: Distribution of Infants & Deaths by Deprivation Groups



If our assumptions about multiple deprivations are correct, then we would expect to see "mortality" as defined above concentrated in our multiple deprived children. Furthermore, if this is the case, we should also be able to identify which deprivations correlate with a multiple deprived child having mortality within her deprivation pattern. The pie-chart in **1a** shows us the percentage distribution of all infants (0-11 months old) among deprivation groups, from the most deprived (4 or more deprivations) to the well-off (no deprivations). We see in the pie-chart that there is a high concentration of deprivations among the bottom 26% of infants (11% high and 15% med deprived). When we calculated the percentage distribution of deaths for each of these groups, we found that an overwhelming percentage of infant deaths happen in the households of multiple deprived children (high and med). As the graph in **1b** shows, the "high" deprived children are 11% of all infants, but concentrate more than half (51%) of all infants with deaths in their household. If we add the "med" deprived, which are 15% of all infants, they add an addition 23% of all infants with deaths in their households, totalling 74% of all deaths in "high" and "med" deprived children. These results mean that *not only are certain children concentrating multiple and most of the deprivations*, but the households they live in are *also the households where children die*.

We have estimated a regression model to explore the impact of several risk factors on child mortality. Because our dependent variable (child mortality) has an extremely skewed distribution, we have used the complementary log-log as the link function of the model. **Table 3** shows the results of the model. Interpretation of the results shows that three deprivations (controlling for all others), namely unsafe drinking water, untreated diarrhoea and no access to proper sewage facilities -in that order of strength- are both strong and significant determinants of deaths in the households of the infants analyzed.

Table 3. Complementary Log-log Regression with Dead Child in the HH during the previous 5 years

	B	Robust Std. Err.	z	P>z	[95% Conf.	Interval]
Sex (female)	-0.25392	0.3621388	-0.7	0.483	-0.9636987	0.4558594
Mother's Education (secondary +)	-0.55376	0.5529225	-1	0.317	-1.637471	0.5299453
Wealth Index	0.43917	0.2831733	1.55	0.121	-0.1158383	0.9941804
Urban	-0.59421	0.5903498	-1.01	0.314	-1.75127	0.5628583
Unsafe Water Source	**1.0600**	0.4777679	2.22	0.027	0.1236145	1.99643
No Sewage	**0.7684**	0.4187472	1.83	0.067	-0.0523538	1.589105
Not Appropriately Fed	0.27118	0.5816849	0.47	0.641	-0.8688974	1.411266
Not Skilled Delivery	0.00921	0.6182402	0.01	0.988	-1.202515	1.220942
Not Birth Registration	-0.51391	0.4795015	-1.07	0.284	-1.453719	0.4258921
Not DPT3 Immunized	0.39869	0.3734429	1.07	0.286	-0.3332422	1.130627
Pneumonia Not Treated	0.66772	0.6785594	0.98	0.325	-0.6622347	1.997669
Diarrhoea Not Treated	**0.877**	0.3957456	2.22	0.027	0.10135	1.652644
Intercept	-4.75591	0.5586473	-8.51	0	-5.850837	-3.660979
				Number of obs=		3365
				Wald chi2(23)=		2241.58
Log pseudolikelihood=		-4843.1463		Prob > chi2=		0
All variables are dichotomous except Wealth Index¡, which ranges -4 .16 for the poorest to 1.41 for the richest						

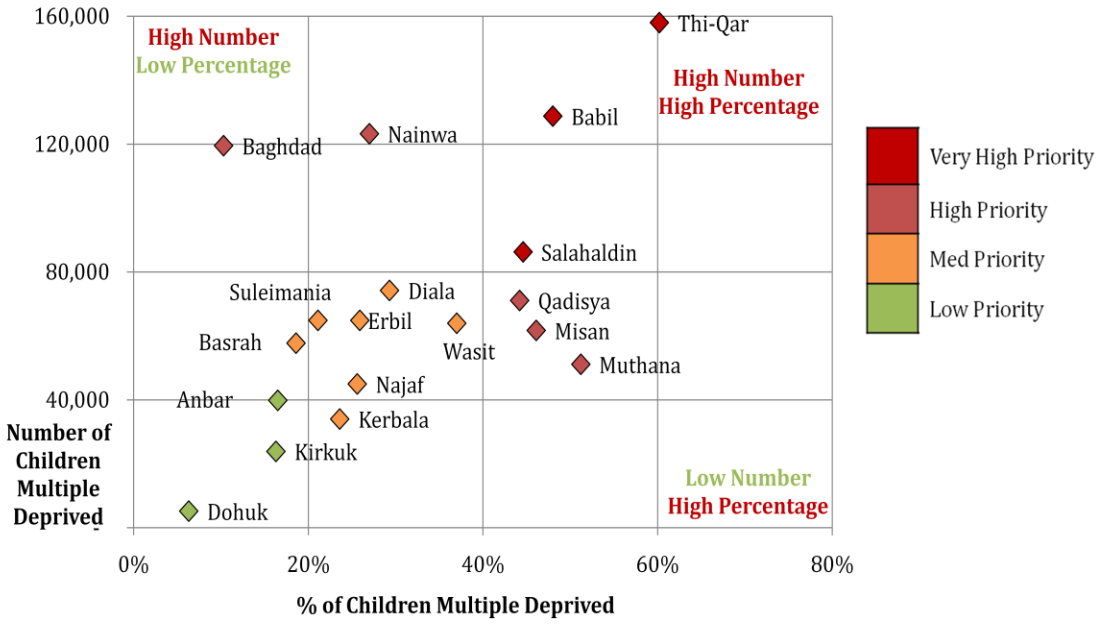
Geographic Area Prioritization

The next question is to determine where these multiple deprived children are. We have applied a criteria which includes both the prevalence (% of children deprived) and the absolute number of children deprived. This approach allows us to ensure that our prioritization will include both areas with high percentage (prevalence) of the problems even if their actual number is low (sparsely populated areas with widespread deprivation), as well as areas with high actual number of children deprived even if their percentage is low (densely populated areas with low prevalence of deprivation). We then categorize each Governorate according to priority levels. **Figure 9** shows all 18 Governorates distributed along two axes: horizontally for % of children multiple deprived in each Governorate, and vertical axis for actual number of children multiple deprived in each Governorate. The gridlines indicate the highest priority to Governorates which fall in the top right quadrant (high number *and* high percentage).

Figure 9: Geographic Prioritization for Primary (6-11yrs)

Multiple Deprivations (Med/High)

Governorate	%	Num
Dohuk	6%	5,171
Kirkuk	16%	23,874
Anbar	17%	39,813
Kerbala	24%	34,023
Albasrah	19%	57,762
Najaf	26%	44,944
Baghdad	10%	119,506
Sulimania	21%	64,878
Erbil	26%	64,867
Diala	29%	74,248
Wasit	37%	63,981
Almuthana	51%	51,129
Misan	46%	61,692
Qadisya	44%	71,087
Nainwa	27%	123,242
Salahaladin	45%	86,281
Babil	48%	128,724
Thiqar	60%	157,986
TOTAL	**28%**	**1,339,863**



The above prioritization applied to a national map is shown on **Figure 10a**. We have zoomed down to the Governorate level, as shown in **Figure 10b**. At the Governorate level we see: Thi-Qar is "Very High Priority" with almost 160,000 children multiple deprived and a prevalence rate of 60%; Missan follows at "High Priority" with approximately 60,000 children multiple deprived and 46% prevalence rate; and finally Basrah at "Med Priority" with also almost 60,000 multiple deprived children but a prevalence rate of only 19%.

Figure 10a: National Level

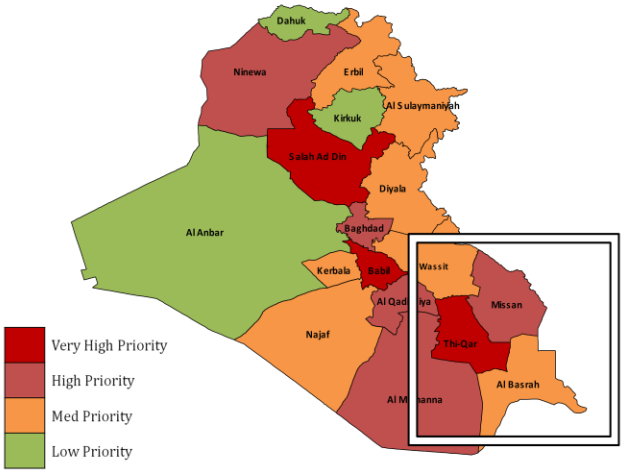
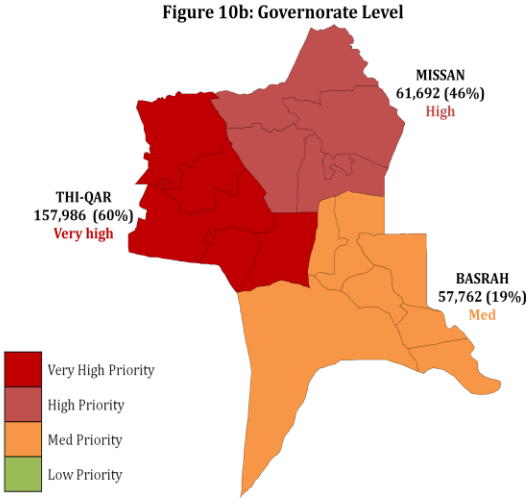


Figure 10b: Governorate Level



We know however that even sub-national Governorate level results hide wide disparities within them. In Iraq specifically, this is generally due to the fact that all Governorates include central cities (normally the capital) which concentrate the majority of the population, and therefore skew the Governorate average. MICS3 2006 data does not allow us to obtain results below Governorate level, but MICS4 2011 data will (as of June 2011 fieldwork has been completed). **Figure 10c** displays a simulation of how District level results will show us specific Districts to focus on, drastically changing the priority levels within a Governorate. Furthermore, as shown in **Figure 10d**, because MICS4 has collected geo-references (GPS) for sample clusters, we will also be able to identify concentrations of deprivation within and across administrative boundaries.

Figure 10c: District Level

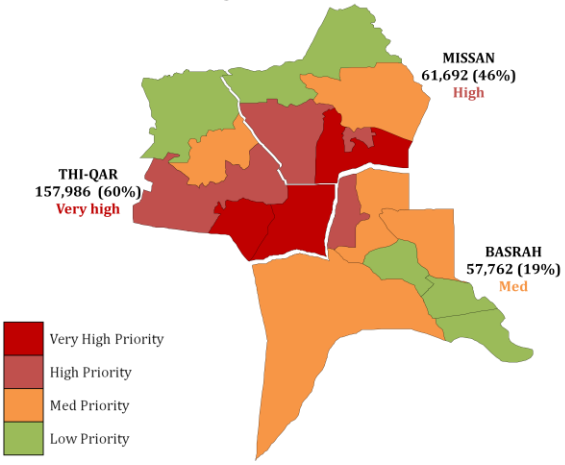
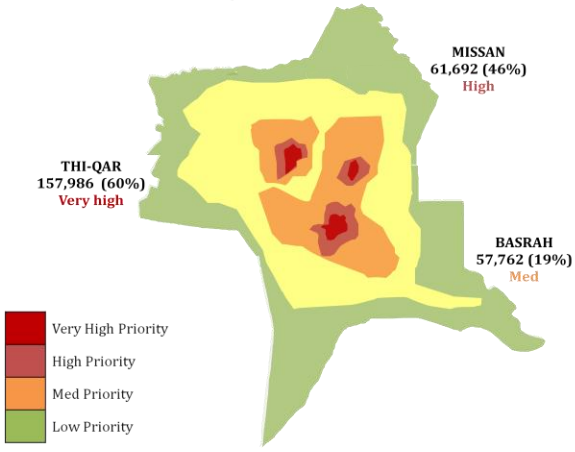


Figure 10d: Cluster Level



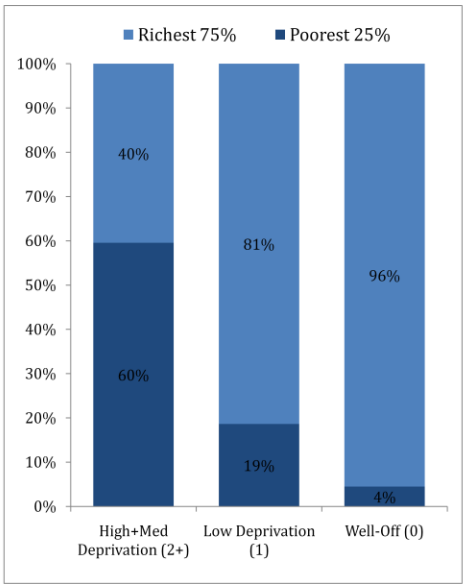
C. Risk Factors and MDG/WFFC Achievement

This section will outline the relationship between wealth index quintiles and multiple deprivations; risk factors – and their interactions- related to deprivations (poverty, mother's education, urban/rural, governorate, sex, other deprived children in the household); and the expected achievement of our MDG/WFFC targets if our focus is centred on most deprived children.

Wealth Index & Multiple Deprivations: Complementarity and Differentiation

Wealth index and multiple-deprivation are highly correlated, with most deprived having biggest share of poor and poor having biggest share of multiple-deprived.[9] They are however *conceptually different*. Wealth index is driver/maintainer of deprivations, used as a *proxy* measurement for household long-run wealth and assumed determinant for inequities in children's situation. Multiple deprivations is a *direct* measurement of child deprivations and inequities arise in terms of differences in these multiple deprivations among children. Furthermore, wealth index is an aggregate household level measurement applied to all individuals; while multiple deprivations is a child-centred measurement at individual level and life-cycle stages based, which aggregates number of deprivations (and determines which ones) for each child.

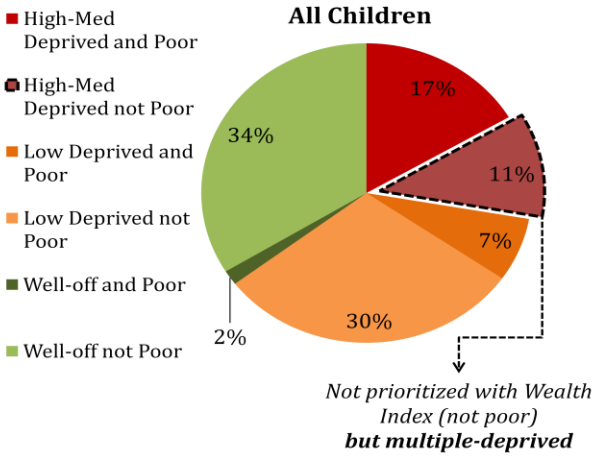
Figure 11a: Wealth Quartiles & Multiple Deprivation



Wealth index and multiple deprivations can *complement* each other very strongly. **Figure 11a** (bar chart) shows the high correlation between poverty (poorest 25% in dark blue) and multiple deprivations (horizontal axis from high deprivation –left- to well off –right). However, it also shows the wealth index can leave out children multiple-deprived children that may not be poor but who are deprived in several (or all) of the measured indicators (40% of high-med deprived children are *not* in the poorest 25%).

This point is clearly presented in **Figure 11b** (pie chart) shows the total population of all children. Out of the 28% which are multiple deprived, 17 percentage points are deprived *and* poor, while the remaining 11 percentage points are *still* multiple deprived but *not* poor. 11% of all children is over 1.5 million children, which we would know are multiple deprived, but we would not consider poor if we simply used the wealth index as our "equity" measure.

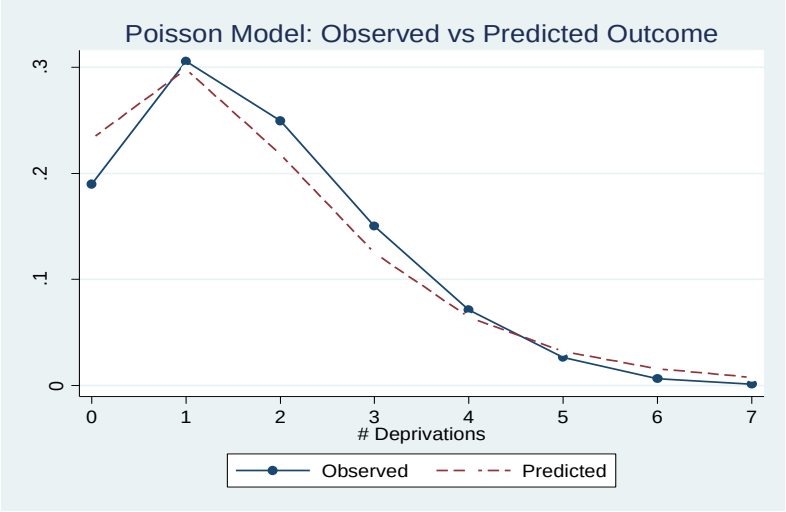
Figure 11a: All children wealth & deprivation



[9] We calculated the wealth index using the MICS standard methodology (PCA exploratory factorial analysis), and to make it comparable to our multiple deprivation categories (which has 4 groups), instead of wealth quintiles (5 groups of 20%), we have calculated the index in quartiles (4 groups of 20%).

Risk Factors: Interactions with Multiple Deprivations

In order to estimate the effect of different risk factors on the number of deprivations faced by children, we have modelled the number of deprivations against the risk factors using a Poisson regression. The model was developed using the following independent variables to determine the number of deprivations (dependent variable): age in months, sex, mother's education, household size, urban/rural, wealth index score, and governorate dichotomous variables for each one. The graph on the right shows the observed curve (actual number of deprivations) versus the predicted curve by the model. It is clear from the proximity of the curves that the model predicts very well what risk factors determine multiple deprivations.



So which risk factors determine multiple deprivations and to what degree? **Table 4** shows the independent variables which were found to have a significant effect on the number of deprivations. The column (%) shaded blue displays the percentage increase/decrease in the number of deprivations with a change in the risk factor. For example, for each additional month in age of the infant (agemonths), there is a 3.7% increase in the average number of deprivations faced, which means that for 10 additional months, there's an average *increase* of 37% in the number of deprivations. Being urban *decreases* the number of deprivations by 22.4%. Finally, and most strongly, for every additional score in the wealth index, there's a change of 23.6% in the number of deprivations. This means that for all 5 score points (equivalent to changing from richest to poorest in the wealth index), the number of deprivations more than double (118% increase). If an infant is in the richest score and has 2 deprivations, moving that infant to the poorest score (and keeping all other characteristics the same) will increase her deprivations to 4.

Table 4. Impact of Risk Factors in the Average Expected Number of Deprivations

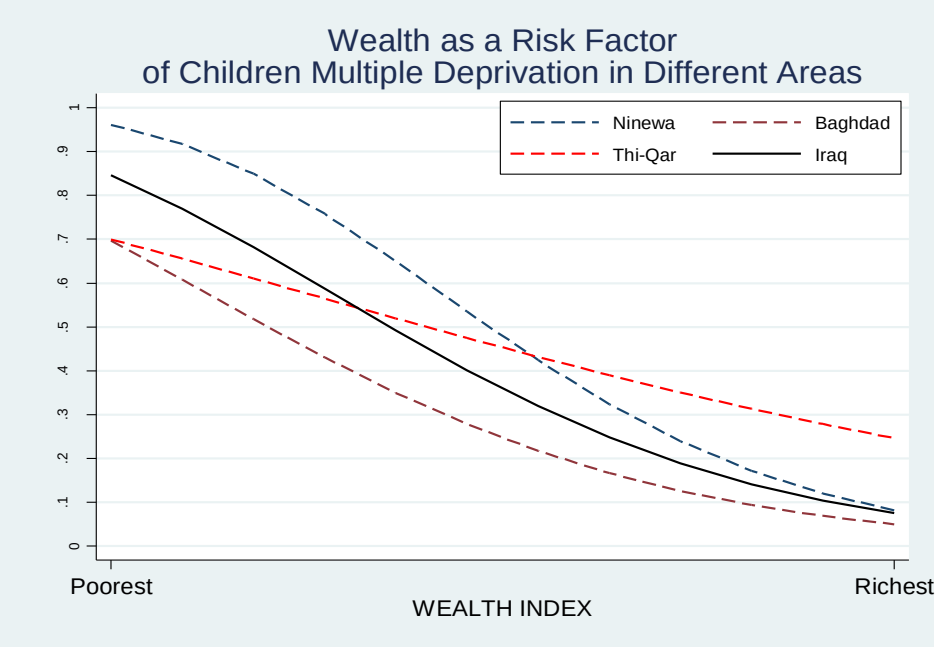
	b	z	P>z	%	%StdX	SDofX
Age (months)	0.03609	10.329	0	**3.7***	13	3.3959
Urban	-0.2535	-7.736	0	**-22.4**	-11.5	0.4841
Household Size	0.01466	4.435	0	1.5	5.8	3.841
Mother's Education (secondary+)	-0.1482	-3.837	0	-13.8	-6.6	0.4635
Wealth Index	-0.2698	-21.613	0	**-23.6****	-23.8	1.0074
Ninewa	0.3609	5.437	0	43.5	12.6	0.3278
Kirkuk	0.20854	2.464	0.014	23.2	3.1	0.1466
Salahaddin	0.3972	5.93	0	48.8	9.5	0.2288
Thiqar	0.40748	6.379	0	50.3	9.5	0.223

* Value for 1 unit (month) of variable, change for **10 months** would be **37%**

** Value for 1 unit (index score) of variable, change in 5 score points (from **poorest to richest**) would be **118%**

Geographically, we see that living in certain Governorates have a very strong effect on the number of deprivations faced by children. Children living in Ninewa, Salah ad-Din and Thi-qar have approximately 50% more deprivations that children –of the same characteristics otherwise- living in Baghdad.

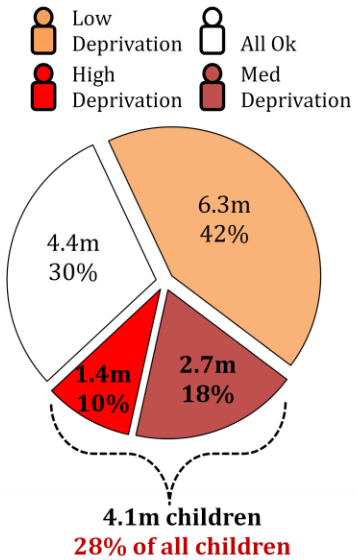
Finally, there is a strong interaction between poverty and geography, though poverty still remains the strongest determinant of multiple deprivation by far. The graph on the right displays the interaction of poverty and living in certain Governorates to the probability of a child being multiple deprived (more than 2 deprivations for infants). It shows 4 curves, one for Iraq as a whole and 3 for selected Governorates: Ninewa, Baghdad and Thi-Qar. The graph shows that if a child in the poorest wealth index score, her chances of being multiple deprived are at least 7 out of 10 (Baghdad and Thi-Qar) and can be almost 10 out of 10! (Ninewa). As poverty decreases and the child reaches the richest scores of the wealth index (again, keeping all other characteristics the same), her chances of being multiple deprived decrease substantially to less than 1 out of 10 for Ninewa as well as Baghdad and Iraq as a whole. Interestingly, the decrease is not as strong in Thi-Qar which stalls at above 3 out of 10. A possible explanation can be the rural context of Thi-Qar Governorate, which may influence the validity of the wealth index as determinant of deprivations in that context.



Focus on Multiple Deprivations: MDG and WFFC Targets Achievement with Equity

The multiple deprivation analysis shows us that the problems in Iraq are concentrated in approximately one third of Iraqi children, with a large number of children facing either one or no deprivations at all. Furthermore, we have found that those who are facing just one deprivation, that deprivation is consistently a problem which is widespread across the whole country, i.e. almost all children are facing this problem. The quantitative analysis has shown us that out of a total of almost 15 million children in Iraq (0-17 yrs), as presented in **Figure 12**, 4.4 million (30%) are not facing any deprivations and a further 6.3 million (42%) are low deprived (1 deprivation). This leaves just 28% of all children facing most deprivations. Out of these, 2.7 million (18 points of the 28%) are facing at least half of the deprivations for their age-group, and finally 1.4 million children (the remaining 10 points of the 28%) are facing *most or all* of the deprivations for their age-group.

Figure 12: Deprivation All Children (~15m / 0-17 yrs)



This concentration of deprivations means that if we focus on this bottom 4.1 million –or 28%-, and particularly on the bottom 10%, not only will we accelerate progress towards our MDG/WFFC targets -solving the problems of these children contributes to multiple targets at the same time-, but we would also be substantially reducing inequities across the population. **Table 1** shows target achievement for all the MDG/WFFC indicators of our framework if we target the multiple deprived children. We have calculated that by focusing on the multiple deprived children (28% of all children), we will achieve on average 97% of our MDG/WFFC targets. Out of 20 targets, 15 will be reached over 95% (most of these 100%), another 4 will be reached above 85% and only 1 target (exclusive breastfeeding) would be reached by the lowest achievement, 77%.

Table 1: MDG & WFFC Target Achievement by Focusing on Children Multiple Deprived

		Baseline & Target		Achievement by Focusing on Multiple Deprived (28%)	
MDG/WFFC Goal	**MDG/WFFC Indicator**	**Current Rate**	**2015 Target**	**Projected Rate**	**% of Target Achieved**
1	Stunting prevalence (Moderate & Severe)	21.4	13	10	100%
	Exclusive breastfeeding rate	25.1	80	62	77%
2	Pre-school attendance	2.5	7	51	100%
	Net primary school attendance rate (NAR)	85.8	90	97	100%
	Secondary school age children out of School	48	24	24	100%
3	Girls Net primary school attendance rate (NAR)	80.4	90	95	100%
	Girls Secondary school age children out of School	58.3	24	80	100%
4	Infant Mortality (per 1,000 live births)	35	17	11	100%
	Full immunization for diphtheria, pertussis and tetanus (DPT3)	61.5	90	83	92%
	Under-5 Mortality (per 1,000 live births)	41	21	13	100%
5	Antenatal Care (ANC 1+)	83.8	100	92	92%
	Skilled attendant at delivery	88.5	100	98	98%
6	Care-seeking for suspected pneumonia	81.6	91	94	100%
	Use of oral rehydration therapy (ORT)	30.7	80	68	85%
7	Public network or network tap as water source	83.7	91	98	100%
	Public Network or Septic Tank as sanitation type	76.8	96	91	94%
8	Birth registration	95	100	97	97%
	Child discipline (severe physical punishment)	30.2	15	15	100%
	Child labour	10.7	5	3	100%
	Marriage before age 18	22.6	11	2	100%
		Total Average Achievement			**97%**

Legend	
	Target Achieved by more than 95%
	Target Achieved between 85%-95%
	Target Achieved by less than 85%

Figure 13a: Infant Mortality

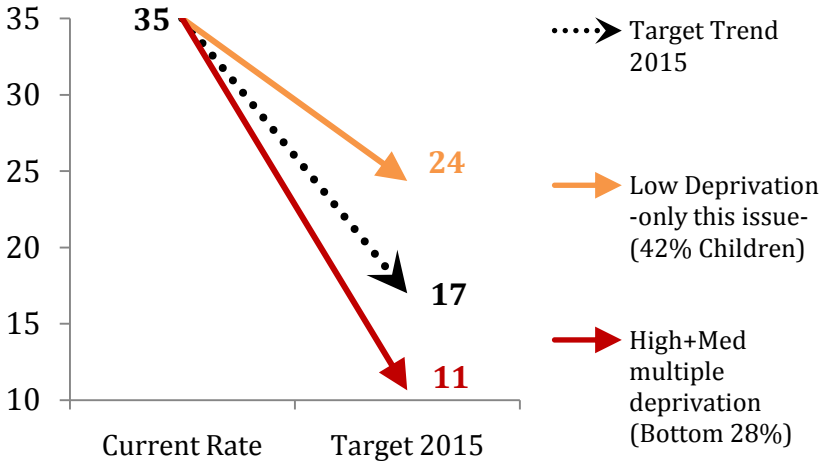
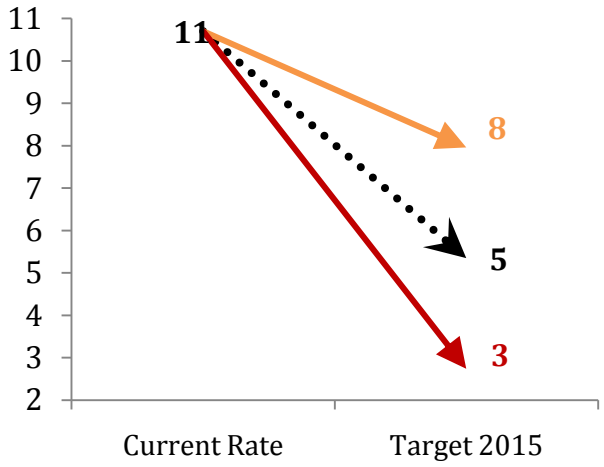


Figure 13b: Child Labour



The question that arises is what if instead we focused on the "low" deprived, the 6.3 million (42% of all children) from Figure 12? Out calculations show that: we would achieve on average only 85% of our targets (versus 97% with multiple deprived); there would be 6 indicators below 80% achievement (versus 1 at 77% with multiple deprived); and they would be very low as well as key deprivations for children in Iraq. The under-achievers would be: exclusive breastfeeding (79% achievement), infant mortality (59%), under 5 mortality (67%), use of ORT (79%), child labour (51%), and early marriage (only 18% achievement). In addition to substantially lower performance on key targets, the focus would be on 6.3 million children (instead of 4.1 million) with deprivations not multiple in certain children, but evenly spread amongst them. **Figures 13a** and **13b** illustrate the difference in achievement in such key indicators like infant mortality and child labour. Infant mortality rate would be reduced from 35 to 24 per 1,000 live births by focusing on low deprivation areas, not reaching the 17 target. Child labour would be reduced from 11% to 8% by focusing on low deprivation areas, also not reaching the target, 5%. In both cases, by focusing on multiple deprived areas, we would reach *and surpass* our 2015 targets.

Focusing on the multiple deprived children is therefore: *Right in Principle*, because multiple deprived children are worst off across the board and have the highest chance of getting worse; *Right in Logic*, because we will have higher returns on our investments and efforts in terms of efficiency (the bottom third have majority of problem + possible spill over effects), higher impact (every single improvement in children's lives means more when the child is multiple deprived) and cost-effective (we can concentrate all our efforts and resources in certain groups and in certain places); and *Right in Practice*: because multiple deprived children concentrate the majority of deprivations and targeting them accelerates attainment of MDG targets. Therefore, let's focus on the bottom 28% of children, the multiple deprived, and achieve the MDG targets with Equity!

D. Next Steps: Planning for an Equity-focused Situation Analysis

Thus far we have established a conceptual framework for understanding children's situation from an equity perspective, as well as presented a quantitative analysis methodology and pilot results using MICS3 2006. This section will now outline the next steps, which include the following: first, technically and substantially reviewing the quantitative methodology; second, running quantitative analysis on MICS4 2011 data and trends since 2006; third, developing and implementing a qualitative analysis based on the quantitative findings and applying UNICEF's SitAn methodology (human rights based analysis, policies, legislation, budgets, etc); and finally fourth, presenting all conclusions in an "Equity-focused" Situation Analysis report to be used for programming, planning and advocacy by UNICEF Iraq Country Office (CO) and partners.

Our approach will be to establish a PCA with a partner International NGO who will coordinate and manage the entire process of developing the Situation Analysis report, with close cooperation and oversight with the PME Section of Iraq CO. The Iraq CO will provide all UNICEF and GoI contacts necessary for the process. The coordinating partner will identify all relevant local NGO partners and Iraqi university participation. **Table 2** below details the planned next steps in three phases: first, quantitative methodology review and application to MICS4 data; second, qualitative analysis tools development and application (desk review and fieldwork); and third, Situation Analysis report consolidation, review and approval. Each of these phases has specific timeframe and a number of detailed activities with dates, output expected, participating partners and budget. At the end of this process, we expect to have a ready-for-publication Iraq Situation Analysis report.

Table 2: Phases of Equity Situational Analysis Report Development

Phase	Time-frame	Activity Description	Date	Outputs Expected	Partners	Budget
Phase 1: Quantitative Methodology Review and Application	15 - 30 Sep 2011	**Workshop for Technical Review of Quantitative Methodology:** * Location: Amman / Duration: 3 days * Participants: HQ (MICS, Equity Consultants, Richard Morgan); RO (Planning, M&E, Social Policy); Iraq CO (PACKS, Programme Section Chiefs, DepRep); GoI (CSO/KRSO Heads); Iraq Universities (3); Iraq NGO/Thinktanks (NCCI + 3) * Agenda: - Day 1: Presentation of complete methodology and pilot results - Day 2: Groupwork on definition of life-cycle stages, indicators, cutoff deprivations and weighting - Day 3: Presentation and groupwork on qualitative analysis (UNICEF SitAn methodology)	15-Sep-11	* Workshop Report (participants, agreements/comments, next steps) * Final quantitative methodology * Qualitative analysis plan	* PCA International NGO in partnership with Iraq NGO/Thinktank * Workshop Participants	
		Quantitative Analysis Application Training: MICS4 2011 and 2006-2011 trends * Location: Erbil / Duration: 4 days * Participants: Iraq CO (MICS Consultant, KMS); CSO/KRSO (Analysis for Children Team); MOLSA (Children Unit -dependent on SPSS skills); I/NGO (1 each -dependent on SPSS skills) * Agenda: - Day 1: Training of quantitative methodology - Day 2: Apply methodology to life-cycle stages: Infancy & Under 5 - Day 3: Apply methodology to life-cycle stages: Primary & Adolescents - Day 4: Obtain overall results for 2011 and trends since 2006	22-Sep-11	* Quantitative results for MICS4 and trends 2006-2011	* CSO/KRSO Analysis for Children Team * PCA International NGO in partnership with Iraq NGO/Thinktank * MOLSA Children Unit	
		Quantitative Analysis Findings Report * Findings per life-cycle stage * Overall findings and trends 2006-2011 * Governorate level patterns and risk factors	30-Sep-11	* Quantitative Analysis Findings Report	* CSO/KRSO Analysis for Children Team * PCA International NGO in partnership with Iraq NGO/Thinktank * MOLSA Children Unit	

Phase	Time-frame	Activity Description	Date	Outputs Expected	Partners	Budget
Phase 2: SitAn Qualitative Analysis Implementation	1 - 30 Oct 2011	**Tools Development and Training** * Desk Review tables (SitAn methodology) * Area-based analysis questionnaires (Sitan Methodology) * Training of fieldworkers (18) on causality, role/pattern and capacity gaps: Iraq CO Facilitators (2 per ZO), University Students (2 per ZO) and I/NGO (2 per ZO) * Training of desk reviewers (9) on secondary sources, legislation, policy and budgeting review: Iraq ZO Programme Officers (1 per ZO), University Students (1 per ZO) and I/NGO (1 per ZO). * Training for fieldworkers will include also include children participation in focus groups.	1 - 10 Oct 2011	* Qualitative analysis tools * 18 fieldworkers trained * 9 desk reviewers trained	* PCA International NGO in partnership with Iraq NGO/Thinktank * UNICEF ZO Programme Officers and Facilitators * University Students	
		Desk Review: Nationwide * Areas of Analysis (1 set per UNICEF Zone): - Secondary Sources Review (NDP/CCA/CPAP) - Legislative Reform Analysis - Policy and Institutional Analysis - Social Budgeting Analysis * Responsible: trained desk reviewers (9) * Focus groups: Iraq CO programme sections and GoI counterparts	11 - 20 Oct 2011	* 3 Desk review reports (1 per Zone)	* PCA International NGO in partnership with Iraq NGO/Thinktank * UNICEF ZO Programme Officers * University Students * UNICEF Programme Sections and GoI Counterparts	
		Fieldwork: Area-based * Selection of areas per Zone: 2 worst multiple deprived, 2 worst low deprived (total of 12 areas for all 3 zones) * Areas of Analysis: - Causality Analysis (Problem tree: immediate, underlying and root causes) - Role/Pattern Analysis (claim-holders and duty-bearers) - Capacity Gaps Analysis (motivation, authority and resources) * Responsible: trained fieldworkers (18) * Focus groups: representatives of Governor's office, local council, NGO, community leader, children and their mothers from affected households (10 hh)	11 - 20 Oct 2011	* 12 Area-based reports	* PCA International NGO in partnership with Iraq NGO/Thinktank * UNICEF ZO Facilitators * University Students * GoI Governors office, local councils * Local NGOs and community leaders * Affected children and their mothers	
		Compilation of Qualitative Analysis Findings * Consolidation of Desk review analysis (1 per Zone) into a national findings report * Consolidation of Area-based fieldwork (12 Areas) into a national findings report Responsible: International NGO partner with desk reviewers and fieldworkers	21 - 30 Oct 2011	* Consolidated Qualitative analysis findings report + Area Profiles (12) annex	* PCA International NGO in partnership with Iraq NGO/Thinktank * UNICEF ZO Programme Officers and Facilitators * University Students	

Phase	Time-frame	Activity Description	Date	Outputs Expected	Partners	Budget
Phase 3: Situation Analysis Report	1 - 15 Nov 2011	**Workshop for Review of Findings and Propose Recommendations** * Location: Amman / Duration: 3 days * Participants: RO (Planning, M&E, Social Policy, Programme Advisors); Iraq CO (PACKS, Programme Sections, DepRep); GoI (CSO/KRSO Heads); Iraq Universities (3); Iraq NGO/Thinktanks (NCCI + 5) * Agenda: - Day 1: Presentation of SitAn findings (quantitative & qualitative) - Day 2: Groupwork to review SitAn findings and produce policy, programme and advocacy recommendations - Day 3: Presentation of groupwork recommendations	1-Nov-11	* SitAn findings reviewed * Policy, programme and advocacy recommendations produced	* PCA International NGO in partnership with Iraq NGO/Thinktank * Workshop Participants	
		Content Finalization of Situation Analysis Report * SitAn findings reviewed according to input from review workshop * Policy, programme and advocacy recommendations integrated into SitAn report * Final SitAn presented to DepRep, Rep and GoI counterpart (MoP CSO Head) for approval (Main body 20 pages max)	5-10 Nov 2011	* Final approved SitAn report	* PCA International NGO in partnership with Iraq NGO/Thinktank	
		Editing, Design and Translation of Situation Analysis Report * Proffessional editing of final SitAn report * Translation necessary to have English, Arabic and Kurdish versions * Graphic design to finalize for printing and publication	11-15 Nov 2011	* SitAn report ready for printing and publication	* PCA International NGO in partnership with Iraq NGO/Thinktank	

Annex I: Table of Life-Cycle Stages, Indicators and Deprivation Thresholds

Life-Cycle Stages	Indicator Name	Age-Group	Deprivation Threshold	Measurement Level
Birth & Infancy (Pregnancy – 11 months)	Antenatal care (ANC 4+)	Women 15-49yrs	Mother of the child was not attended at least 4 times during pregnancy by skilled health personnel	Mother
	Skilled attendant at delivery	Women 15-49yrs	Mother of the child was not attended during childbirth by skilled health personnel	Mother
	Appropriately fed	Children 0-11 months	Child is not exclusively breastfed	Child
	Neonatal/Infant mortality	Children 0-1 month	At least 1 child 0-11 died in the household during the past 5 years	Household
	Care-seeking for suspected pneumonia	Children 12-59 months	At least 1 case of suspected pneumonia in the household during the previous 2 weeks that was not taken to appropriate health provider	Household
	Use of oral rehydration therapy (ORT)	Children 0-11 months	Child had diarrhea during the previous 2 weeks and did not receive any appropriate treatment	Child
	Full DPT3 Immunization coverage	Children 7-11 months	Child is not fully immunized DPT3	Child
	Birth Registration	Children 0-11 months	Child's birth is not reported registered	Child
	Safe Water Source	HH	Household does not use safe source as main drinking water source	Household
	Improved Sanitation	HH	Household does not have sewage network as sanitation type	Household
Early Childhood (12 – 59 months)	Stunting prevalence (Moderate & Severe)	Children 12-59 months	Child is moderately or severely stunted	Child
	Care-seeking for suspected pneumonia	Children 12-59 months	At least 1 case of suspected pneumonia in the household during the previous 2 weeks that was not taken to appropriate health provider	Household
	Use of oral rehydration therapy (ORT)	Children 12-59 months	At least 1 case of diarrhea in the household during the previous 2 weeks that did not receive any appropriate treatment	Household
	Full DPT3 Immunization coverage	Children 18-29 months	Child is not fully immunized DPT3	Child
	Under-five mortality	Children 12-59 months	At least 1 child under 5 years died in the household during the past 5 years	Household
	School readiness	Children 12-59 months	Child participates in more than 4 activities that promote learning and school readiness	Child
	Child discipline (severe physical punishment)	Children 12-59 months	Child experiences severe physical punishment	Child
	Safe Water Source	HH	Household does not use safe source as main drinking water source	Household
	Improved Sanitation	HH	Household does not have sewage network as sanitation type	Household
Primary Childhood (5 – 11 yrs)	Net primary school attendance rate	Children 6-11yrs	Child is not attending primary school	Child
	Child labour	Children 5-14 yrs	Child is involved in child labour (MICS definition)	Child
	Child discipline (severe physical punishment)	Children 2-14yrs	Child experiences severe physical punishment	Child
	Safe Water Source	HH	Household does not use safe source as main drinking water source	Household
	Improved Sanitation	HH	Household does not have sewage network as sanitation type	Household
Adolescence (12 – 17 yrs)	Secondary school age children Out of School	Children 12-17yrs	Child is out of school	Child
	Child labour	Children 5-14 yrs	Child is involved in child labour (MICS definition)	Child
	Marriage before age 18	Girls 15-17 yrs	Girl is married	Child
	Safe Water Source	HH	Household does not use safe source as main drinking water source	Household
	Improved Sanitation	HH	Household does not have sewage network as sanitation type	Household

Annex II: MICS3 Deprivations and Concentration per Life-Cycle Stage

Table IIa: Summary of deprivation levels, distribution and number of children

	Children			High Dep				Med Dep				Low Dep				Well-off				High+Med Dep			
Life-Cycle Stages	Total Dep Counted	% of All Children	# of Children	# of Dep	% within Stage	% of All Children	# of Children	# of Dep	% within Stage	% of All Children	# of Children	# of Dep	% within Stage	% of All Children	# of Children	# of Dep	% within Stage	% of All Children	# of Children	# of Dep	% within Stage	% of All Children	# of Children
Birth & Infancy (Pregnancy – 11 months)	10	7%	1,080,433	4+	11.5%	9%	124,250	3	15.2%	6%	164,226	1-2	54.2%	9%	585,595	0	19.1%	5%	206,363	3+	26.7%	7%	288,476
Early Childhood (12 – 59 months)	9	32%	4,789,063	4+	13.4%	45%	641,734	3	17.4%	31%	833,297	1-2	52.1%	40%	2,495,102	0	17.1%	18%	818,930	3+	30.8%	36%	1,475,031
Primary Childhood (5 – 11 yrs)	5	33%	4,819,650	3+	8.2%	28%	395,211	2	19.6%	35%	944,651	1	36.9%	28%	1,778,451	0	35.4%	39%	1,706,156	2+	27.8%	33%	1,339,863
Adolescence (12 – 17 yrs)	5	28%	4,090,777	3+	6.3%	18%	257,719	2	18.2%	28%	744,521	1	33.9%	22%	1,386,773	0	41.5%	38%	1,697,672	2+	24.5%	24%	1,002,240
Total	29	100%	14,779,923			10%	1,418,914			18%	2,686,696			42%	6,245,921			30%	4,429,121			28%	4,105,610

Table IIb: Details of deprivation levels per indicator, distribution and number of children

		Total			High Dep			Med Dep			Low Dep			Well-off			High-Med Dep		
Life-Cycle Stages	Indicator Name	Prev*	Conc**	Num***	Prev*	Conc**	Num***	Prev*	Conc**	Num***	Prev*	Conc**	Num***	Prev*	Conc**	Num***	Prev*	Conc**	Num***
Birth & Infancy (Pregnancy – 11 months)	Antenatal care (ANC 4+)	47%	100%	504,562	88%	22%	111,508	78%	26%	128,663	45%	52%	264,391	0%	0%	0	83%	48%	240,172
	Skilled attendant at delivery	11%	100%	114,526	47%	52%	59,210	19%	27%	31,380	4%	21%	23,936	0%	0%	0	31%	79%	90,590
	Appropriately fed	10%	100%	108,043	20%	23%	25,066	17%	26%	27,551	9%	51%	55,426	0%	0%	0	18%	49%	52,617
	Neonatal/Infant mortality	5%	100%	49,700	17%	43%	21,371	8%	27%	13,220	3%	30%	15,109	0%	0%	0	12%	70%	34,591
	Care-seeking for suspected pneumonia	2%	100%	22,666	9%	47%	10,709	3%	21%	4,719	1%	32%	7,238	0%	0%	0	5%	68%	15,429
	Use of oral rehydration therapy (ORT)	13%	100%	136,135	24%	22%	30,086	20%	24%	32,264	13%	54%	73,785	0%	0%	0	22%	46%	62,350
	Full DPT3 Immunization coverage	26%	100%	275,235	61%	27%	75,214	42%	25%	68,327	23%	48%	131,694	0%	0%	0	50%	52%	143,541
	Birth Registration	12%	100%	124,250	24%	24%	29,571	15%	20%	24,477	12%	57%	70,201	0%	0%	0	19%	44%	54,049
	Safe Water Source	15%	100%	159,904	60%	47%	74,355	32%	32%	51,649	6%	21%	33,900	0%	0%	0	44%	79%	126,004
	Improved Sanitation	37%	100%	394,358	91%	29%	112,786	68%	28%	110,815	29%	43%	170,757	0%	0%	0	78%	57%	223,601
Early Childhood (12 – 59 months)	Stunting prevalence (Moderate & Severe)	25%	100%	1,176,931	50%	27%	320,446	37%	26%	305,130	22%	47%	551,355	0%	0%	0	43%	53%	625,576
	Care-seeking for suspected pneumonia	4%	100%	196,352	12%	39%	76,184	6%	26%	51,248	3%	35%	68,919	0%	0%	0	9%	65%	127,432
	Use of oral rehydration therapy (ORT)	13%	100%	618,407	32%	33%	202,635	21%	28%	174,834	10%	39%	240,938	0%	0%	0	26%	61%	377,469
	Full DPT3 Immunization coverage	30%	100%	1,431,930	72%	32%	462,513	45%	26%	376,598	24%	41%	592,819	0%	0%	0	57%	59%	839,111
	Under-five mortality	2%	100%	114,938	7%	41%	46,895	4%	27%	30,458	2%	33%	37,585	0%	0%	0	5%	67%	77,353
	School Readiness	47%	100%	2,246,071	84%	24%	539,057	70%	26%	583,978	45%	50%	1,123,035	0%	0%	0	76%	50%	1,123,035
	Child discipline (severe physical punishment)	14%	100%	665,680	29%	28%	185,059	20%	25%	166,420	13%	47%	314,201	0%	0%	0	24%	53%	351,479
	Safe Water Source	16%	100%	771,039	64%	53%	411,735	30%	32%	246,733	5%	15%	112,572	0%	0%	0	45%	85%	658,467
	Improved Sanitation	38%	100%	1,805,477	89%	32%	574,142	68%	31%	566,920	27%	37%	664,415	0%	0%	0	77%	63%	1,141,061
Primary Childhood (5 – 11 yrs)	Net primary school attendance rate	3%	100%	139,770	16%	45%	62,198	5%	33%	45,425	2%	23%	32,147	0%	0%	0	8%	77%	107,623
	Child labour	10%	100%	495,928	52%	41%	205,520	17%	33%	164,813	7%	25%	125,595	0%	0%	0	28%	75%	370,332
	Child discipline (severe physical punishment)	35%	100%	1,664,442	76%	18%	302,626	54%	31%	513,799	48%	51%	848,017	0%	0%	0	61%	49%	816,425
	Safe Water Source	16%	100%	775,964	83%	42%	326,681	41%	50%	386,430	4%	8%	62,853	0%	0%	0	53%	92%	713,111
	Improved Sanitation	39%	100%	1,865,205	95%	20%	376,771	82%	42%	777,790	40%	38%	710,643	0%	0%	0	86%	62%	1,154,562
Adolescence (12 – 17 yrs)	Secondary school age children Out of School	33%	100%	1,329,503	83%	16%	215,379	61%	34%	457,349	47%	49%	656,774	0%	0%	0	67%	51%	672,728
	Child labour	6%	100%	241,114	33%	35%	85,199	13%	39%	93,887	5%	26%	62,028	0%	0%	0	18%	74%	179,086
	Marriage before age 18 (Girls)	7%	100%	130,905	23%	26%	34,297	20%	65%	84,695	2%	9%	11,912	0%	0%	0	21%	91%	118,993
	Safe Water Source	13%	100%	544,073	84%	40%	217,629	37%	51%	278,566	3%	9%	47,878	0%	0%	0	49%	91%	496,195
	Improved Sanitation	35%	100%	1,435,863	97%	18%	251,276	77%	40%	574,345	44%	43%	610,242	0%	0%	0	82%	58%	825,621

* Prevalence: percentage within this group facing deprivation

** Concentration: percentage of all deprived of this issue who are in this group

*** Number of children deprived of this issue in this group