

## Executive Summary

Eleven West and Central African countries began to implement an accelerated child survival and development programme (ACSD) in 2002, supported by the Canadian government, with the objective of demonstrating, within a very short period of time, how integrated implementation of low-cost key effective interventions can have a dramatic impact on child survival. Survey and monitoring results suggest that between 2002 and 2004, increased coverage of a package of selected high-impact interventions in demonstration districts in Senegal, Mali, Benin and Ghana with a population of 3 million, **reduced the under-five mortality rate by 20%**, estimated to vary from 25% in Senegal, 21% in Mali, 17% in Ghana, and 16% in Benin in comparison with control districts, saving an estimated five and a half thousand children a year.

Expansion districts in these four countries and in a further 7 countries, with a population of 14 million, implementing a less comprehensive package of interventions achieved a reduction of 10% in the under-five mortality rate, saving almost twelve and a half thousand children annually. In expansion countries this ranged from 5% in Cameroon to 14% in Guinea Bissau. Analysis of results shows **major gains in utilization of routine preventive health services** (EPI immunization, Vitamin A supplementation, and ANC attendance) as well as significant increases in use of Insecticide Treated Bednets (ITNs).

**The total ACSD programme, impacting on a population of 17 million people, is saving nearly 18 thousand child lives per year.**

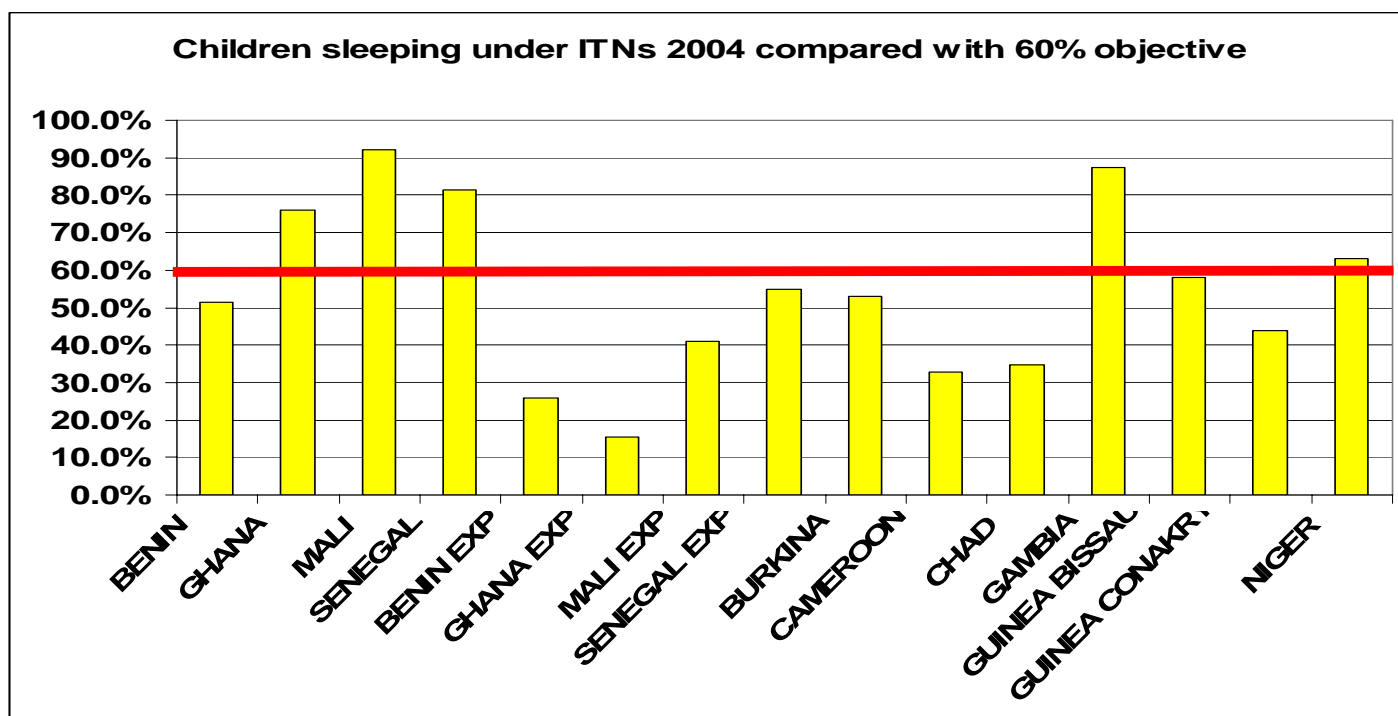
The overall Programme Expenditure of this strategy in the eleven countries, was **less than half a dollar per capita per year**, (ranging from 0.30 cents in Mali to around \$1 in Niger). The proportion of this cost attributable to CIDA funding is **less than a quarter per capita per year** (varying from \$ 0.12 per capita/yr in Mali to \$ 0.47 per capita/yr in Senegal).

<b>ABOVE 15% U5MR REDUCTION GOAL</b>	<b>SENEGAL</b>	<b>25%</b>
	<b>MALI</b>	<b>21%</b>
	<b>SENEGAL EXPANSION</b>	<b>17%</b>
	<b>GHANA</b>	<b>17%</b>
	<b>BENIN</b>	<b>16%</b>
<b>BETWEEN 10 AND 15% U5MR REDUCTION</b>	<b>GUINEA BISSAU</b>	<b>14%</b>
	<b>GUINEA CONAKRY</b>	<b>12%</b>
	<b>BENIN EXPANSION</b>	<b>11%</b>
	<b>CHAD</b>	<b>10%</b>
	<b>BURKINA</b>	<b>10%</b>
<b>UNDER 10% U5MR REDUCTION</b>	<b>MALI EXPANSION</b>	<b>9%</b>
	<b>GAMBIA</b>	<b>9%</b>
	<b>NIGER</b>	<b>8%</b>
	<b>CAMEROON</b>	<b>5%</b>
	<b>GHANA EXPANSION</b>	<b>3%</b>

The impact of the increased coverage of key interventions on the under-five mortality rate has been estimated using the MBB tool and the efficacies of the evidence based interventions included in the Lancet series on Child survival and on Neonatal survival. These results have surpassed the expected impact on child mortality, included in the original agreement with CIDA, of a reduction of 15% in U5MR by the end of 2004

in high impact districts in 4 countries. The impact on U5MR reduction for all countries was calculated based on increased coverage from 2001 (baseline) to 2004 (survey results or adjusted coverage, validating 2004 routine monitoring data against a comparison of 2003 survey results and 2003 routine monitoring data).

By the end of 2004, the average coverage of Vitamin A in ACSD districts reached 83% (ranging from 58%-100% in different countries); 48% (ranging from 12%-92%) of children aged under-five were sleeping under insecticide treated bednets; Measles coverage averaged 70% (ranging from 52%-82%); 67% of children were protected by DPT3 (ranging from 57%-90%); Tetanus immunization reached 65% (ranging from 29%-100%); 51% of pregnant women attended ANC3 (ranging from 31%-80%) and IPT with fansidar for pregnant women rose to 58% (ranging from 43%-67%).



The coverage of some interventions was more limited, especially for certain family-based activities such as exclusive breastfeeding, complementary feeding, and home care of diarrhea, and for clinical care of ARI. Survey results in 2003 had already indicated this, and improved understanding of the constraints and opportunities in implementing intervention packages led to some strategy changes in 2004 aimed at sustaining high coverage already attained for some interventions and improving coverage of other key activities. The high impact districts in Benin, Ghana, Mali, and Senegal have placed greater emphasis in 2004 on increasing coverage of key family practices. By the end of 2004, coverage of these family practices increased by 12% for ORT and by 7% for Community management of Malaria, while breastfeeding levels did not rise in most countries (a 20% increase was recorded in Senegal) and care in health facilities remained low (no significant improvement was noted in clinical management of ARI, Malaria or Skilled delivery in ACSD districts compared to control districts).

The average approximate cost in ACSD districts is US\$ 779 per life saved, ranging from US\$ 234 in Mali to US\$2,564 in Cameroon. The cost to CIDA was US\$377 per life saved. The low cost per life saved is due to a dramatic increase in Vitamin A supplementation, Measles immunization and ITN coverage in very poor settings with the highest mortality rates. In Ghana and Cameroon, where the baseline for Vitamin A coverage was already high, at 82% in Ghana and 69% in Cameroon, and where Measles coverage was also very high, the impact on the under-five mortality rate has been lower, resulting in fewer lives saved at a higher cost.

## Total UNICEF and CIDA Expenditure in ACSD Programme and Costs per Life saved.

ACSD COUNTRIES	Total Progr Exp/year	CIDA Progr. Exp/year	Total Progr. Exp./cap/yr	CIDA Progr. Exp/cap/yr	Total US \$ per life saved	CIDA US \$ per life saved
<b>MALI</b>	\$ 2,033,021	\$ 811,146	\$ 0.30	\$ 0.12	\$ 234	\$ 93
<b>SENEGAL</b>	\$ 1,034,693	\$ 719,422	\$ 0.68	\$ 0.47	\$ 374	\$ 260
<b>BENIN</b>	\$ 1,061,732	\$ 667,944	\$ 0.45	\$ 0.29	\$ 571	\$ 359
<b>GHANA</b>	\$ 1,024,742	\$ 855,165	\$ 0.34	\$ 0.29	\$ 631	\$ 526
<b>Average</b>	<b>\$ 5,154,187</b>	<b>\$ 3,053,677</b>	<b>\$ 0.38</b>	<b>\$ 0.22</b>	<b>\$ 345</b>	<b>\$ 204</b>
<b>GUINEA BISS</b>	\$ 241,017	\$ 100,645	\$ 0.44	\$ 0.18	\$ 299	\$ 125
<b>CHAD</b>	\$ 215,763	\$ 171,638	\$ 0.36	\$ 0.29	\$ 375	\$ 298
<b>GUINEA CON.</b>	\$ 320,120	\$ 163,299	\$ 0.64	\$ 0.32	\$ 689	\$ 351
<b>BURKINA</b>	\$ 340,038	\$ 102,042	\$ 0.61	\$ 0.18	\$ 742	\$ 223
<b>NIGER</b>	\$ 613,728	\$ 169,332	\$ 1.07	\$ 0.29	\$ 1,392	\$ 407
<b>GAMBIA</b>	\$ 138,865	\$ 97,773	\$ 0.49	\$ 0.35	\$ 1,127	\$ 793
<b>CAMEROON</b>	\$ 308,386	\$ 105,754	\$ 0.67	\$ 0.23	\$ 2,564	\$ 879
	<b>\$ 2,177,916</b>	<b>\$ 910,482</b>				
<b>TOTAL ACSD</b>	<b>\$ 7,332,103</b>	<b>\$ 3,964,159</b>	<b>\$ 0.43</b>	<b>\$ 0.23</b>	<b>\$ 779</b>	<b>\$ 377</b>

In addition to CIDA funding, US\$ 11 million were leveraged from UNICEF regular resources and other sources for ACSD interventions, to complement the US\$ 19 million from CIDA, excluding funding for vaccinations. This includes both UNICEF's own resources and funding raised from other sources. By end of 2003, most countries had used all CIDA funds and secured other sources of funding to maintain programme activities, but in some cases were unable to expand to the extent planned. The main constraint in most countries in moving forward with this very promising programme is the shortage of funding for 2005 (and in some cases for 2004). The challenge is to maintain the momentum generated by this innovative programme and to intensify advocacy for countries to mainstream ACSD into national health policies and programmes in the context of Poverty Reduction Strategies and Health Sector Reforms, and to leverage funding for accelerated Child Survival in Medium Term Expenditure Frameworks, Basket Funding and Budget Support.

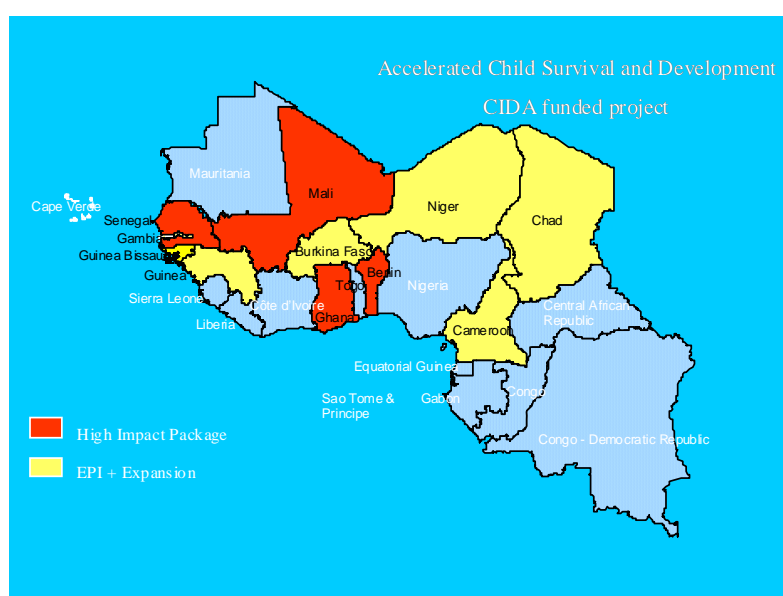
A small number of countries (notably Mali and Senegal) did not spend all of the funding received from CIDA, mainly due to the interest manifested by other donors in the programme that succeeded in generating sufficient additional funding to cover some of the planned activities. The remaining unspent CIDA funds have been set aside to conduct Coverage surveys in all ACSD programme areas and for Impact surveys in the high impact districts in 4 countries. This will enable verification of the achievement of the ACSD objective by assessing reductions in U5MR since 2000/2001.

The initial success of the ACSD strategy has been widely shared with partners involved in child survival in each country. In implementing districts, ACSD has provided a foundation for other initiatives such as operational research on community management of ARI and malaria, and the introduction of the new ORS formula. The strategy has been replicated and expanded in other districts (14 million people were initially targeted, but by the end of 2004 ACSD had reached a population of 17 million.) The strategy has also been adopted by other countries in the region, has been integrated within national health strategies, and is today a reference in accelerating child survival and development through packages of evidence based interventions. .

This report aims to update the intermediary report submitted to CIDA in May 2004, in the light of current progress in implementing ACSD in the eleven West and Central African countries.

## 2. The Accelerated Child Survival and Development (ACSD) strategy

A disproportionate number of the 11 million annual child deaths worldwide occur in West and Central Africa. In response to this, UNICEF selected three high impact packages of cost-effective interventions and innovative activities aimed at substantially reducing child mortality, focusing specifically on the most vulnerable, and began implementing this approach in 16 high mortality districts in 4 countries in West and Central Africa, targeting an initial population of 3 million people. The Canadian Government supported this initiative for Accelerated Child Survival and Development (ACSD), providing CDN \$3 million in 2001 and CND \$26 million in 2002. Over a three-year period from 2002-2004, implementation was expected to result in an average 15% reduction in under-five mortality in the 16 high impact demonstration districts in four countries. Expansion of these interventions was planned in a phased way to other poor, high mortality districts in 11 West and Central African Countries. In the longer term (i.e. by 2010), once interventions are established, a reduction of 35% in child mortality was anticipated in these districts in the 11 countries.



### 2.1 Population coverage

The initial ACSD strategy was adopted by UNICEF in 2002 as a regional approach for the Western and Central Africa region with a view to expanding the initiative beyond the initial 11 countries. Throughout programme implementation, the targeted population has been considerably higher than the initial anticipated figure of 3 million. Four countries, Mali, Benin, Senegal, and Ghana implemented the full, high-impact intervention package in the 16 High-Impact Demonstration Districts. These four countries, along with the other 7 participating West and Central African countries (Burkina Faso, Chad, Cameroon, Gambia, Guinea Bissau, Guinea Conakry, and Niger), also implemented an EPI+ and ITN intervention package and initiated ANC in Expansion Districts. Since 2002, the programme has been working with nearly 100 districts: 16 high-impact districts in 4 countries, all districts in 10 entire regions the same 4 countries, and 31 expansion districts in 7 other countries. The actual targeted population since 2002 includes 3 million people in high-impact countries, 10.5 million in expansion districts in the same countries, and 3.5 million in expansion countries, a **total targeted population of 17 million people, with 3 million children under-five.** (Annex 1)

For evaluation purposes, coverage of the above interventions was measured in collaboration with CDC Atlanta through large scale coverage surveys carried out in the high-impact districts and in comparison districts in the summer of 2003, and in expansion districts from December 2003 to January 2004. 2004 survey results (where they existed) and 2004 routine monitoring data (validated and adjusted against a comparison of 2003 survey results and 2003 monitoring data to ensure accuracy) were compared with 2001

baseline data to confirm trends of increased coverage of key ACSD interventions by the end of 2004 and to calculate impact. Where no viable 2004 data were available, the 2003 survey results were used.

## **2.2 The three intervention packages originally selected for this programme include:**

- Immunization plus
  - Routine immunization and periodic measles catch-up
  - Vitamin A supplementation bi-annually
  - Distribution and promotion of Insecticide Treated Nets for all children who are fully vaccinated as well as pregnant women, and re-dipping of bednets every six months
- Antenatal Care
  - Intermittent preventive treatment (IPT) of malaria with SP (Fansidar) for pregnant women
  - Tetanus immunization during pregnancy to prevent maternal & neonatal tetanus
  - Supplementation with iron/folic acid during pregnancy and with Vitamin A post-partum
- Improved management of pneumonia, malaria and diarrhea
  - Promotion of exclusive breastfeeding for six months, timely complementary feeding
  - Improved and integrated management (at the health facility, community and family levels) of children suffering from ARI, malaria and diarrhea, including home-based ORS use, treatment of malaria with anti-malarial blisters, and treatment of ARI with antibiotic blisters
  - Promotion of household consumption of iodized salt

## **2.3 Recapitulation of coverage results 2002/2003 already reported in the Progress Report 2004**

### *2.3.1 Intervention districts and intervention packages actually implemented*

Three types of district were distinguished in the initiative, namely control districts, high-impact districts, and expansion districts. High-impact districts are those initially targeted for implementation in 4 countries (Benin, Ghana, Mali and Senegal), where all three Intervention Packages listed above were implemented. Expansion districts refer to other areas in the high-impact countries, and to expansion districts in 7 other countries (Burkina Faso, Cameroon, Chad, Gambia, Guinea Bissau, Guinea Conakry, and Niger), where the initial emphasis was on the Immunization plus package. Control districts –where no support was provided by UNICEF to the above intervention packages- were selected in comparative areas for high-impact and expansion districts in Benin, Ghana, Mali, and Senegal, as well as in comparative areas in five of the expansion countries, to enable comparisons to be made of the evolution in the coverage of key interventions.

### *2.3.2 Coverage surveys*

Surveys to measure coverage results were carried out in 2003 after more than 18 months of ACSD intervention. Analysis of results shows major gains mainly in vaccination levels, Vitamin A distribution, ITN use, and ANC visits. Results also indicate that insufficient emphasis was placed on community IMCI (c-IMCI), necessitating major promotion of family/community based activities such as exclusive breastfeeding, complementary feeding, use of ORT and re-dipping of bednets. Survey results also indicated that ANC+ activities needed to be reinforced through further training of health workers in outreach strategies and strengthening communication strategies to ensure better quality and effective coverage of key interventions. In response to coverage results and analysis, participating countries revised priorities for the remaining duration of the implementation period and reoriented implementation strategies accordingly.

### *2.3.3 Coverage results by intervention: EPI+*

Increased coverage in immunization and Vitamin A supplementation was achieved in all of the districts, with remarkable increases in some instances. Nine out of the eleven countries achieved over 75% Vitamin A

supplementation coverage (4 surpassing the objective of 90%), 8 countries reached DPT3 coverage of over 70%, and 7 achieved Measles immunization coverage of 70% or over.

### *2.3.3 Coverage results by intervention: ANC +*

In both Senegal and Mali, the proportion of pregnant women attending 3 or more antenatal care visits more than doubled, and increased in Ghana from 58% to 80%, attributed largely to ITN distribution linked to initial ANC consultation, while remaining stable in Benin where it had already reached 80%. The estimated Tetanus coverage in all four countries was 40% or above, reaching 66% for Senegal.

### *2.3.4 Coverage results by intervention: IMCI+*

Results from some of the IMCI interventions were limited, including essential family practices such as exclusive breastfeeding and complementary feeding. This result illustrates the difficulty involved in promoting behavioral changes that necessitate commitment for a period of time, e.g. exclusive breastfeeding for 6 months, and the need for an intensive, interpersonal approach to facilitate this type of behavioral change.

Emphasis was placed on increasing first-line prevention and care at community level, with little emphasis on improving clinical care. Delivery by a skilled attendant at facility level improved only marginally, unrelated to any specific ASCD strategy, as no significant difference was recorded compared to control districts.