



Care Groups – An Effective Community-based Delivery Strategy for Improving Reproductive, Maternal, Neonatal and Child Health in High-Mortality, Resource-Constrained Settings

A Guide for Policy Makers and Donors

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CORE Group improves and expands community health practices for underserved populations, especially women and children, through collaborative action and learning. Established in 1997 in Washington D.C., CORE Group, through its Community Health Network, brings together its 70+ Member and Associate Organizations along with the extended global health community to network, share knowledge, identify gaps, and create and promote evidence-based tools that increase the impact and sustainability of maternal and child health programming around the world. To learn more, visit www.coregroup.org.

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Introduction

Care Groups are an innovation in reproductive, maternal, neonatal and child health (RMNCH) programming that is gaining increasing recognition because of their effectiveness in promoting behavior change and expanding population coverage of key interventions. This paper provides policy makers and donors with an introduction to the Care Group approach and an overview of the evidence of their effectiveness.

This report describes a delivery strategy for expanding coverage of key RMNCH interventions called Care Groups. We will describe here what Care Groups are, their history, the field experience with the use of this delivery strategy, evidence of their effectiveness and cost, how they might be integrated into government health programs, and proposed next steps for expanding their use and further documenting their effectiveness.

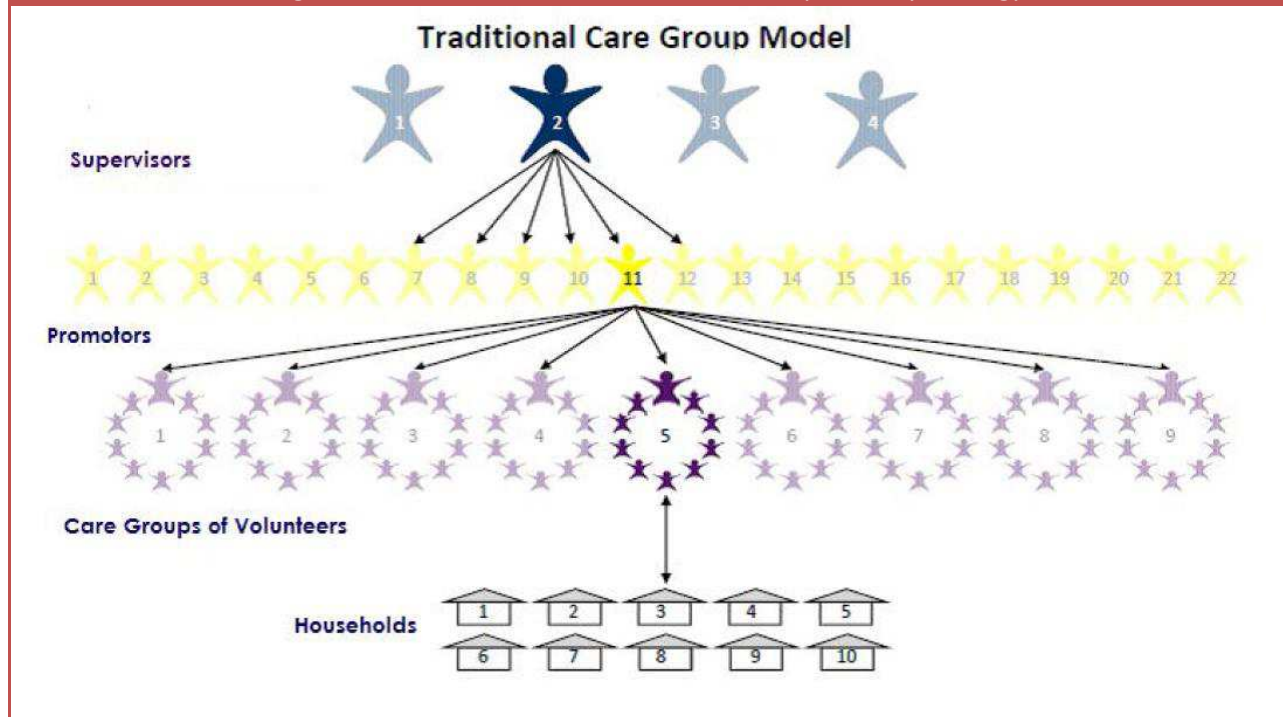
What is a Care Group?

The formal definition of a Care Group is the following:

“A Care Group is a group of 10-15 volunteer, community-based health educators who regularly meet together with project staff for training and supervision. They are different from typical mother’s groups in that each volunteer is responsible for regularly visiting 10-15 of her neighbors, sharing what she has learned and facilitating behavior change at the household level. Care Groups create a multiplying effect to equitably reach every beneficiary household with interpersonal behavior change communication.”¹

A representation of a Care Group intervention delivery system is shown in Figure 1. The system is established initially by identifying volunteers (called Care Group Volunteers) who can each be responsible for 10-12 mothers of young children in her neighborhood. The Care Group Volunteer is often identified by the mothers, in collaboration with community leaders. Supervisory field staff are recruited and trained to set up Care Groups in collaboration with community leaders so that (1) Care Group Volunteers are in place and are responsible for 10-12 mothers who are their neighbors and (2) all pregnant women and mothers of young children are linked to a Care Group Volunteer.

Figure 1: Structure of a traditional Care Group delivery strategy



Depending on the size of the population covered by the project or program, two (and sometimes three) layers of paid program staff are required so that a Care Group Promoter can meet with each Care Group every 2-4 weeks for 2 hours or so. At that time, the Care Group Promoter teaches one or a small number of lessons that include messages and activities for counseling and behavior change for the Care Group Volunteers to share with the women for which she is responsible. During the following 2-4 weeks (depending on the schedule established by the program), the Care Group Volunteer meets with each of the women for which she is responsible – either by visiting each woman individually in her home or meeting with all of the women in their catchment area as a single group or as sub-groups. At these group meetings (as in the meetings of the Care Group Volunteers), there is an opportunity to build group cohesion, provide peer support and discuss barriers to practicing the new behaviors, and ways to overcome those barriers. At the subsequent Care Group meeting, the Care Group Volunteers discuss their experience and any challenges they faced in sharing the lesson. They also learn and practice delivering a new message. In most Care Group programs, the Care Groups Volunteers also report births and deaths to the Care Group Facilitators, who report this information upward through the health information system.

The entire supervisory staff (all promoters and their supervisors) meets together every few months to learn a new module of lessons to be disseminated over the ensuing several months. They practice delivering these lessons using participatory techniques that they will then model for the volunteers, including demonstrating and practicing the behavior when feasible (such as hand washing or preparing thick, enriched porridge), role plays and how to develop dramas and songs to convey these messages.

The Supervisors of the Promoters are mostly in the field, visiting Care Group meetings, supporting Care Group Promoters with problems they face in their work, managing the health information system (including vital events data), and visiting randomly selected households to assess coverage of

interventions. This latter function has been highly developed in some Care Group projects to include so-called “mini-KPCs” (knowledge, practice and coverage surveys) in which a randomly selected group of 100 or so mothers are interviewed each quarter regarding their uptake of recent behavior change lessons.

The activities and messages focus on key behaviors and household practices for promoting maternal and child health (including those related to water and sanitation), and indications for utilization of health facilities including danger signs for which medical care should be sought.

Further details regarding what are considered to be essential criteria for the Care Group model are available from Technical Advisory Group meetings in 2010² and 2014.³ The original Care Group manual and a recently released manual provide more information about Care Groups and how they function.^{4, 5}

Why are Care Groups important?

There is a recognized need to accelerate progress in reducing maternal and child mortality in the 75 countries of the world where 95% of the world’s maternal and child deaths take place.⁶ The Millennium Development Goals established in 2000 for maternal and child health called for achieving by the year 2015 reductions of three-fourths and two-thirds, respectively, in maternal and child mortality based on 1990 levels.⁷ This goal will not be achieved by the great majority of these countries, particularly in Africa.⁸ Looking to the longer term, a campaign is now beginning to end preventable child and maternal deaths by 2035.⁹ To reach this goal, it will be necessary to double the annual rate decline in under-5 mortality in priority countries.¹⁰ One of the important reasons for lack of progress has been the low population coverage of key interventions that are widely accepted as effective in reducing maternal and child deaths. Although the median population coverage of immunizations and vitamin A supplementation is in the range of 80%, the coverage of other key interventions is 60% or less and for a number of interventions, the median range of coverage is 30% or less. And in some countries, levels of coverage are less than 10%.⁸ Interest in and experience with community health workers (CHWs) is growing rapidly, and CHW programs are expanding in many countries.^{11, 12} However, the success of the programs in rapidly expanding the population coverage of key maternal and child health interventions has been mixed.

There is a recognized need to improve health care delivery systems so that they can achieve high levels of population coverage of key maternal and child health interventions and documented reductions in maternal and child mortality. The inability of facility-based services by themselves to achieve high levels of population coverage and mortality impact is well-documented, as demonstrated by the multi-country evaluation of Integrated Management of Childhood Illness in the mid-1990s.¹³⁻¹⁵ Expanding coverage of key interventions and achieving documented reductions in maternal, neonatal and child mortality will require approaches that engage the community as partners, empower women and communities, and reach a high proportion of households with counseling about health behaviors and practices. The Care Groups approach meets these criteria.

Qualitative assessments carried out as part of mid-term or final evaluations of many Care Group projects¹⁶ have documented the empowering nature of Care Groups for Care Group Volunteers, the participating mothers, and the community. This is in itself an important outcome for broader

development purposes aside from their direct health impact. Anecdotal evidence abounds of Care Group Volunteers who have received greater respect from their husbands and who have gone on to assume leadership positions in their community (as mayor or as an influential spokesperson at town meetings) and beyond.

How effective are Care Groups in improving reproductive, maternal, neonatal and child health?

The effectiveness of the Care Group approach has been documented in multiple project evaluations. Most of the initial Care Group projects were funded through the US Agency for International Development (USAID) Child Survival and Health Grants Program (CSHGP),¹⁷ which has a uniform approach to project evaluation, including baseline and endline household surveys of the project population and standard measurement of key indicators. Table 1 summarizes the current evidence regarding Care Group effectiveness. Care Group child survival project outcomes have been assessed based on changes in population coverage in key reproductive, maternal, neonatal, and child survival interventions. One report describes the effectiveness of Care Groups in reducing diarrhea morbidity, and another assesses the impact of Care Groups on reducing child undernutrition (as measured by weight for age). Finally, there are several reports describing the impact of Care Groups on reducing under-5 mortality. The specific findings and the references from which these findings have been obtained are shown in Table 1. Taken together, the evidence base supporting the effectiveness of the Care Group approach in improving population-level RMNCH is substantial – just as substantial as for any community-based service delivery intervention strategy currently in existence.

Table 1. A summary of the evidence of the effectiveness of Care Groups in improving reproductive, maternal, neonatal and child health

Criterion	Finding	Comment	References
Change in coverage of key reproductive, maternal, neonatal, and child survival interventions	The World Relief/Vurhonga II child survival project in Mozambique using Care Groups had the greatest change in coverage of key child survival interventions among 21 USAID CSHGP projects in submitting their final evaluations between June 2004 and June 2005.		¹⁸
	The increase in coverage of key child survival indicators in Care Group projects is on average 42% greater than for the average USAID CSHGP-funded health projects (based on data available in 2012).		¹⁹
	Marked increases in nutrition-related and diarrhea-related interventions in the Food for the Hungry/Mozambique Care Group child survival project, which was carried out in a population of 1.1 million people. For instance, prevalence of exclusive breastfeeding increased from 24% to 75%, the percentage of children with diarrhea treated with oral rehydration solution or recommended home fluids increased from 58% to 93%, the percentage of children with diarrhea who were fed the same amount or more food during their illness increased from 32% to 83%, and the percentage of mothers who reported appropriate hand washing practices		²⁰

	increased from 1% to 51%.		
	A comparison of Care Group with non-Care Group child survival projects completed between 2002 and 2010 in the same countries demonstrated that the overall increase in coverage of key child survival interventions was greater for all indicators measured.		21
	12 Care Group project evaluations all demonstrated marked improvements in population coverage of key child interventions.	Links to these project evaluations are available through the reference	16
	A number of project evaluations show marked improvements in population-based indicators that are closely associated with reproductive, maternal, and neonatal health. Included among these are use of family planning, birth spacing, utilization of antenatal care, facility-based deliveries, home visits to newborns, and exclusive breastfeeding..	Links to these project evaluations are available through the reference	16
Reduction in morbidity	A randomized controlled trial demonstrated that a Care Group approach to diarrhea prevention reduced the prevalence of diarrhea in a Bolivian peri-urban setting to 14%, compared to a prevalence of 42% in the control group.	The Care Group approach was also combined with a water filter in another arm and with the water filter intervention alone in a third arm	22
Reduction in undernutrition	In a Care Group child survival project carried out in a population of 1.1 million people in central Mozambique, the average annual rate of decline of undernutrition (2.2%) was approximately 4 times greater than the underlying secular decline (0.4-0.6%).		20
Reduction in under-5 mortality	42% decline in under-5 mortality in the World Relief/Mozambique Vurhonga (Dawn) II child survival project according to independently collected retrospective vital events data, and 62% according to prospective vital events collected by Care Group Volunteers.		23, 24
	71.9% decline in under-5 mortality in the World Relief/Cambodia Light for Life child survival project according to vital events collected by Care Group Volunteers (9.0% per year over a 10-year period, 2000-2008) compared to a 39.7% decline in the same province during a similar period (4.0% per year over a 10-year period, 1995-2005).		24, 25
	A comparison of CSHGP-funded Care Group Projects with non-Care Group child survival projects from the same countries using LiST, indicates that the Care Groups projects have an annual rate of decline in under-5 mortality that is 49% greater than other CSHGP child survival projects. LiST estimates child survival impact from changes in population coverage in key child survival interventions. ²⁶		21

How much do Care Group projects cost and what is their cost-effectiveness?

Since many Care Group projects have been funded by the USAID Child Survival and Health Grants Program, their costs are known, as shown in Table 2 for eight representative projects. And this information along with the availability of LiST to estimate the number of lives saved makes it possible to compute a cost-per-life saved and a cost-per-DALY averted. Table 2 provides this information for eight of the early Care Group projects completed in 2010 or before. The average cost per beneficiary (mothers and children 0-59 months of age) per year is \$5.77. The average cost per life saved (as estimated by LiST) is \$2,204, and the average cost per DALY averted (again, using LiST and assuming that 30 DALYS are gained for each death of an under-5 child averted) is \$67.25. The costs are readily affordable for low-income countries, and the cost-effectiveness of the approach compares favorably with other approaches. For instance, a recent analysis of the Participatory Learning and Action (PLA) Groups cost-effectiveness²⁷ estimates their approach to cost \$33-\$114 per year of life saved, a range almost identical that for Care Groups in Table 2. An earlier assessment of the first PLA Group effectiveness²⁸ showed that the incremental cost per year of life saved was \$211.

Table 2. Cost-effectiveness of CSHGP-funded Care Group projects compared to other Child Survival and Health Grants Program-funded Care Group projects

Child survival project	Number of beneficiaries ^a	Total project cost ^b	Average cost per beneficiary ^a per year	Number of lives saved ^c	Cost per-life saved	Cost per-DALY ^d averted	Estimated percentage reduction in under-5 mortality ^c
Food for the Hungry/ Mozambique	219,617	\$3,024,166	\$2.78	6,848	\$441	\$14.72	30% overall (32% in Area A and 26% in Area B)
World Relief/ Mozambique (Vurhonga IV)	101,757	\$2,000,000	\$6.56	1,217	\$1,643	\$54.77	33%
World Relief/ Mozambique (Vurhonga II)	53,418	\$1,397,531	\$6.54	769	\$1,817	\$60.57	48%
World Relief/ Mozambique (Vurhonga I)	57,277	\$1,811,895	\$7.91	819	\$2,212	\$27.30	33%
World Relief/ Rwanda	54,451	\$1,733,333	\$6.37	676	\$2,564	\$85.47	29%
World Relief/ Malawi I	68,917	\$1,333,335	\$4.84	557	\$2,394	\$79.80	32%
World Relief/ Malawi II	72,226	\$2,022,034	\$7.00	537	\$3,773	\$125.77	28%
Plan International/Kenya	110,735	\$2,300,000	\$4.15	826	\$2,785	\$92.82	26%
Average of the 8 Care Group projects above	92,300	\$1,956,016	\$5.77	1,531	\$2,204	\$67.65	30%
Average of recent USAID-supported child survival projects^d							14%

^a Number of women of reproductive age and children 0-59m of age served by the project.

^b USAID expenses plus matching funds provided by the NGO.

^c Based on the Lives Saved Tool, uncorrected for underlying secular trends

^d DALY: Disability-adjusted life year

^d USAID CSHGP Portfolio Highlights: Grantees Save Lives, 2008.

Note: Source of USAID Child Survival and Health Grants Program PVO project data: Project Final Evaluations and personal communications with World Relief, Food for the Hungry and Plan International child survival staff.

How have Care Groups been adapted in countries?

According to the best available information, Care Group projects have been implemented by 23 organizations in 27 countries.²⁹ Almost all of the Care Group projects implemented so far have been in rural areas of low-income countries. One study (discussed below) has applied the Care Group delivery strategy to behavioral change interventions for preventing diarrhea in a peri-urban (non-slum) setting in Cochabamba, Bolivia.

Care Group projects have been implemented principally by international NGOs, often working with local NGOs. The USAID Child Survival and Health Grants Program (CSHGP) provided support initially, and donor support is now provided by the USAID Title II Multi-Year Assistance Program (MYAP) and Technical and Operational Performance Support (TOPS), the USAID Office of Foreign Disaster Assistance, the Canadian International Development Agency (CIDA), the British Department for International Development (DfID), the European Commission: Humanitarian Assistance and Civil Protection (ECHO), the World Bank, and UNICEF.

One of the weaknesses of the Care Group approach as implemented so far has been its dependence on NGOs to develop and facilitate the activities. Once NGO support is withdrawn, the projects have not been taken up by the government health system. There has recently been one project in which an NGO (Concern Worldwide) has worked to develop and implement a Care Group project within the Ministry of Health of Burundi using government CHWs as Care Group promoters. Concern Worldwide has carried out an operations research project in Burundi comparing the effectiveness of the traditional NGO Care Group project structure (in which the Care Group facilitators are paid by the NGO) with an alternative approach in which Care Group facilitators are MOH CHWs.³⁰ The findings indicate that MOH CHWs are as effective as NGO-paid promoters in expanding the coverage of key interventions, and the MOH of Burundi is now considering integrating the Care Group approach into its delivery system.³¹ Operations research projects modelled after the Concern Worldwide/ Burundi project will be useful in documenting how the Care Group approach can best be integrated into existing MOH of structures.

Conclusions

The Care Group strategy is now firmly entrenched in the NGO community because of its effectiveness in improving RMNCH. The evidence base regarding the cost-effectiveness of Care Groups is sufficiently robust now to justify expansion of funding for RMNCH programs using the Care Group strategy, for both NGO as well as government programs. Further evaluation of Care Groups will help to develop and expand the evidence base and provide opportunities for improving the strategy. Care Groups have the potential for serving as an implementation strategy to address other health priorities beyond maternal and child health, including family planning, gender-based violence, mental health (including depression), HIV, TB, as well as water, sanitation and hygiene issues, among other possibilities. This potential represents an exciting new frontier. We are only now beginning to understand how to use participatory women's groups for the benefit of women and their families. Together with Participatory Learning and Action Groups (which use groups of women for participatory learning and action to improve maternal and neonatal health and which have undergone extensive testing³²) and other approaches that enable frequent interpersonal contact between health care workers and community members,³³ Care Groups can help to accelerate global progress in improving RMNCH and other global health priorities. Policy makers and donors now have an opportunity to build on this evidence and experience.

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