

Child Survival › Diarrheal Disease: Studies Reporting Behavior Change Outcomes

Title	Authors	Journal & Link	Location	Population	Intervention Description	Outcomes	Design	Sampling Method	SOE Score ¹	SMBC ²
Narrowing the treatment gap with equitable access: Mid-term outcomes of a community case management program in Cameroon	Littrell M, Moukam LV, Libite R, Youmba JC, Baugh G	Health Policy and Planning, 2013, 28 (7): 705-716 http://heapol.oxfordjournals.org/cgi/pmidlookup?view=long&pmid=23144228	East region of Cameroon	Households with children under age 5	Community case management for childhood illnesses. CCM package provided community-based diagnosis, treatment and referral for suspected malaria with artemisinin combination therapy (ACT) and diarrhoeal disease with ORS and zinc through community health workers (PSI)	Behaviorial Factors Awareness, access, and attitudes towards CHW services among caregivers improved with intervention Behaviors Children living in intervention vs comparison areas were significantly more likely to receive treatment at a public health facility or through a CHW for fever and diarrhea Appropriate treatment was significantly higher among children in intervention vs comparison areas including: antimalarial treatment for fever , ACT for fever , ORS for diarrhea and zinc for diarrhea	Quasi-experimental	Purposive	4	2: Behavior, Method mix
Evaluation of a social marketing intervention promoting oral rehydration salts in Burundi	Kassegne S, Kays MB, Nzohabonayo J	BMC Public Health, 2011, 11 (155): 1-13 http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3062608/	Burundi	Females of reproductive age from 30 households from each of the 115 "collines" in Burundi	PSI led this Social marketing intervention to promote the use of ORASEL for children under five. Campaign included mass media promotion and community outreach	Behaviorial Factors Positive changes in behavioral determinants associated with ORASEL use Behaviors ORASEL use among caregivers at their children’s last diarrheal episode increased significantly from 20% in 2006 to 30% in 2007	Observational	Probability	4	5:Behavior Customer orientation, Insight, Theory, Mixed methods,

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1. Strength of Evidence Score

2. Social Marketing Benchmark Criteria

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National scale-up of zinc promotion in Nepal: Results from a post-project population-based survey	Wang W, MacDonald VM, Paudel M, Banke KK	Journal of Health, Population, and Nutrition, 2011, 29 (3): 207-217 http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3131121/	30 focus districts in Nepal	Households surveys with children under 6 years of age	The Social Marketing Plus for Diarrhoeal Disease Control: Point of Use Water Disinfection and Zinc Treatment (POUZN) project; Survey regarding knowledge and beliefs about zinc treatment after tha airing of a national mass-media campaign	Behaviorial Factors Over half (53.1%) of all caregivers (n=3,550) interviewed had heard about zinc products; most (97.1%) of those who had heard of zinc knew that zinc should be used for the treatment of diarrhea Behaviors At follow-up, the majority (67.5%) of children (n=289), aged less than six years, with diarrhoea were treated with ORS, and 15.4% were treated with zinc. Children whose caregivers recalled the mass-media message that zinc should be used for 10 days and whose caregivers perceived that zinc is easy to obtain were more likely to be treated with zinc for 10 days, along with ORS	Observational	Probability	4	5: Behavior, Theory, Customer orientation, Insight Mixed methods
Determinants of use of household-level water chlorination products in rural Kenya, 2003-2005	DuBois AE, Crump JA, Keswick BH, Slutsker L, Quick RE, Vulule JM, Luby SP	International Journal of Environmental Research and Public Health, 2010, 7 (10): 3842-3852 http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2996196/	Nyanza Province, Kenya	Users and non-user controls of a new household water treatment product regarding drinking water and socioeconomic factors from 10 Villages with 1,452 compounds	Use of socially marketed household water treatment systems: flocculent-disinfectant and sodium hypochlorite	Behaviors Reports of ever using the sodium hypochlorite solution ranged from 21% to 59%, while rates of use in the past 7 days ranged from 7% to 27%	Observational	Probability	4	5: Behavior, Customer orientation, Segmentation, Exchange, Method mix
Shame or subsidy revisited: Social mobilization for sanitation in Orissa, India	Pattanayak SK, Yang J,Dickinson KL, Poulos C, Patil SR, Mallick RK, Blitstein JL, Praharaj P	Bulletin of the World Health Organization, 2009,87:580–587 http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2733281/	India	Households	Intensive IEC campaign that used social marketing strategies and community led total sanitation	Behaviors Latrine ownership did not increase in control villages, but in treatment villages it rose from 6% to 32% in the overall sample, from 5% to 36% in households below the poverty line and from 7% to 26% in households above the poverty line	Experimental	Probability	6	7: Behavior, Customer orientation, Insight, Exchange, Competition, Segmentation, Methods mix

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1. Strength of Evidence Score 2. Social Marketing Benchmark Criteria

Title	Authors	Journal & Link	Location	Population	Intervention Description	Outcomes	Design	Sampling Method	SOE Score ¹	SMBC ²
Increasing equity of access to point-of-use water treatment products through social marketing and entrepreneurship: A case study in western Kenya	Freeman MC, Quick RE, Abbott DP, Ogutu P, Rheingans R	Journal of Water & Health, 2009, 7 (3): 527-534 http://web.ebscohost.com.pr oxygw.wrlc.org/ehost/detail?sid=c4cbb144-a0f9-485a-9593-f4d645dce3bc%40sessionmgr111&vid=1&hid=124&bdata=JnNpdGU9ZWhvc3Qt bGl2ZQ%3d%3d#db=a9h&AN=44231895	Nyanza Province, Kenya	487 randomly selected households in eight communities served by the women’s groups	Safe Water System is a simple, inexpensive, point-of-use (POU) household water quality intervention using: 1) locally produced sodium hypochlorite solution for water treatment; 2) safe storage with containers with a narrow mouth, tight fitting lid and tap; and 3) behaviour change communications; women’s groups in western Kenya were trained to educate neighbours and sell health products to generate income (PSI)	Behaviorial Factors Knowledge of water treatment products was high Behaviors 20% (range 5–39%) of households in eight communities purchased and used chlorine, as confirmed by residual chlorine observed in stored water	Observational	Probability	4	X: Exchange, Method mix
Diarrhoea prevention in a high-risk rural Kenyan population through point-of-use chlorination, safe water storage, sanitation	Garrett V, Ogutu P, Mabonga P, Ombeki S, Mwaki A, Aluoch G, Phelan M, Quick RE	Epidemiology and Infection, 2008, 136 (11): 1463-1471 http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2870746/?tool=pmcentrez&report=abstract	Nyanza Province, Kenya	Comparison of diarrhoea rates in 960 children aged <5 years in 556 households in 12 randomly selected intervention villages and six randomly selected comparison villages during weekly home visits over an 8-week period	Social Marketing to promote the Safe Water System (SWS) in collaboration with CARE Kenya’s program to provide latrines and rainwater collection	Behaviors Intervention households were also more likely to have residual chlorine in their stored water (43%of visits vs. 0%) and to possess a latrine (49% of visits vs. 27%) Health On multivariate analysis, chlorinating stored water [relative risk (RR)0.44, 95% confidence interval (CI) 0.28–0.69], latrine presence (RR 0.71, 95% CI 0.54–0.92), rainwater use (RR 0.70, 95% CI 0.52–0.95), and living in an intervention village (RR 0.31, 95%CI 0.23–0.41), were independently associated with lower diarrhea risk	Quasi-experimental	Probability	5	4: Behavior, Exchange, Insight, Methods mix
Bringing safe water to remote populations: An evaluation of a portable point-of-use intervention in rural Madagascar	Ram PK, Kelsey E, R, Miarintsoa RR, Rakotomalala O, Dunston C, Quick RE	American Journal of Public Health, 2007, 97 (3): 398-400 http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1805013/	Tamatave Province, Madagascar	Respondents from 242 households in 4 villages were interviewed	Social marketing campaign to promote SWS and SurEau water disinfectant. Campaign used community based sales agents	Behaviorial Factors Respondents from 239 households (99%) had heard of Sûr’Eau, the SWS disinfectant Behaviors 226 (95%) reported having ever used Sûr’Eau, and 166 (73%) reported current use. Current Sûr’Eau use was confirmed in 54% of households	Observational	Probability	3	3: Behavior, Exchange, Methods mix

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Title	Authors	Journal & Link	Location	Population	Intervention Description	Outcomes	Design	Sampling Method	SOE Score ¹	SMBC ²
Sustained high levels of stored drinking water treatment and retention of hand-washing knowledge in rural Kenyan households following a clinic-based intervention	Parker AA, Stephenson R, Riley PL, Ombeki S, Komolleh C, Sibley L, Quick R	Epidemiology and Infection, 2006, 134 (5): 1029-1036 http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2870483/	Homa Bay, Kenya	Clinic clients	Nurses in a maternal and child health clinic were trained in household water chlorination with a locally available, social marketed product, and in six steps of proper hand washing. Nurses initiated client education sessions on the SWS, hand-washing techniques, and diarrhoea prevention messages at the MCH clinic	Behaviors After 2 weeks, free chlorine residuals were present in stored drinking water in 68 % of clients' homes and, 1 year later, in 71 % clients' homes. After 2 weeks, all six hand-washing steps were correctly demonstrated by 44 % of clients, and by 34 % 1 year later	Observational	Probability	4	3: Behavior, Segmentation, Methods mix
Acceptability of and adherence to dispersible zinc tablet in the treatment of acute childhood diarrhoea	Nasrin D, Larson, CP, Sultana S, Khan, TU	Journal of Health, Population, and Nutrition, 2005, 23 (3): 215-221 http://www.jhpn.net/index.php/jhpn/article/view/330	4 sub-districts in Dhaka, Bangladesh	Children between the ages of 3 and 59 months and their caretakers	Distribution and sales of zinc tablets by a social marketing firm	Behaviorial Factors The formulation was acceptable to children; 90.1% of 303 caretakers perceived that the tablets were equally or even more acceptable to their children compared to other medicines Behaviors Ninety-eight percent of the children received the standard dose of one tablet per day, 55.8% completed the full 10-day course of zinc treatment	Observational	Purposive	3	1: Methods mix
Social marketing and motivational interviewing as community interventions for safe water behaviors: Follow-up surveys in Zambia	Thevos AK, Olsen SJ, Kaona FAD, Tembo M, Quick RE	International Quarterly of Community Health Education, 2002, 21 (1): 51-65 http://www.cdc.gov/safewater/publications_pages/2002/thevos_2002.pdf	Ndola and Kitwe, Zambia	Peri-urban households	Volunteer community health promoters in experimental (social marketing + motivational interviewing) and comparison (social marketing only) groups trained in causes of diarrhea and prevention through use of Clorin and safe water storage by SFH/Zambia. Health promoters in experimental group additionally trained in MI techniques. After training, promoters conducted weekly household visits to promote and sell Clorin	Behaviorial Factors At 3 mos FU, 68% of households in SM group knew of correct disinfectant use vs. 80% in SM+MI group (p>0.05). At 16 mos FU, 80% of households in SM group knew of correct disinfectant use vs. 89% in SM+MI group (p>0.05) Behaviors At 3 mos FU in Ndola,48% of households in SM group storing water safely vs. 87% in SM+MI group (p<0.01). At 16 mos FU in Kitwe, 63% of household in SM group stored water safely vs. 64% in SM+MI group (p>0.05)	Experimental	Probability	6	2: Behavior, Theory

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Evidence of behaviour change following a hygiene promotion programme in Burkina Faso	Curtis V, Kanki B, Cousens S, Diallo I, Kpozehouen, Sangare M, Nikiema M	Bulletin of the World Health Organization, 2001, 79 (6): 518-27 http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2566434/?tool=pmcentrez&report=abstract	Bobo-Dioulasso, Burkina Faso	Mothers of children aged 0–35 months, older sisters, maids, and school-aged children	Social marketing campaign involving house-to-house visits, performance of plays, and school curriculum	Behaviorial Factors Improved knowledge Behaviors Safe disposal of children’s stools changed little between 1995 and 1998 (80% pre-intervention, 84% postintervention); hand-washing with soap after cleaning a child’s bottom rose from 13% to 31% and the proportion of mothers who washed their hands with soap after using the latrine increased from 1% to 17%	Quasi-experimental	Probability	5	5: Behavior, Customer orientation, Insight, Segmentation, Methods mix
Challenges in implementing a point-of-use water quality intervention in rural Kenya	Makutsa P, Nzaku K, Ogutu P, Barasa P, Ombeki S, Mwaki A, Quick RE	American Journal of Public Health, 2001, 91 (10): 1571-1573 http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1446827/	Nyanza Province, Kenya	24 villages	Behavior change campaign to promote use of Safe Water System included advertising tools such as posters and brochures, as well as puppet shows , skits, and public demonstrations	Behaviors The project has resulted in adoption rates of 33.5% for chemical water treatment and 18.5% for clay pots modified for safe water storage	Observational	Probability	3	6: Behavior, Customer orientation, insight, Exchange, Competition, Method mix
Collaboration, cholera, and cyclones: A project to improve point-of-use water quality in Madagascar	Dunston C, McAfee D, Kaiser R, Rakotoarison D, Rambeloson L, Hoang AT, Quick RE	American Journal of Public Health, 2001, 91 (10): 1574-1576 http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1446828/	Mahavita, Madagascar	CARE evaluated the program’s impact in Mahavita through baseline and follow-up surveys of a random sample of 375 households in 15 neighborhoods	CARE contracted PSI to socially market the Safe Water System; Campaign to increase sales of SurEau water treatment	Behaviors The utilization rate of Sûr’Eau in Mahavita households was 11.2% after 6 months. Utilization in neighborhoods in the last stage of the community mobilization process was 19.7%, compared with 8.4% in those at an earlier stage (P=.01). Median free chlorine residuals in stored water were found to be 0.23mg/L in households using Sûr’ Eau, compared with 0.1 mg/L in households not using the product (P=.005)	Quasi-experimental	Probability	5	5: Behavior, Customer orientation, Insight, Exchange, Methods mix

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Analysis of different communication channels for promoting hygiene behavior	Pinfold JV	Health Education Research, 1998, 14 (5): 629-639 http://her.oxfordjournals.org/content/14/5/629	Six sub-districts in Khon Kaen Province, Thailand	Households from selected villages and random selection of schools - study used questionnaires and FGD	Social marketing campaign to improve hand and dish-washing practices. Campaign involved both a variety of media outlets as well as village-level health workers	Behaviorial Factors Strong correlation between number of communication channels remembered by respondents and knowledge Behaviors No significant improvements in behaviors outside of school children	Quasi-experimental	Probability	5	6: Behavior, Customer orientation, Insight, Competition, Segmentation, Mixed Methods
Measuring the effect of a hygiene behaviour intervention by behaviour and diarrhoeal disease	Pinfold JV, Horan NJ	Transactions of the Royal Society of Tropical Medicine and Hygiene, 1996, 90 (4): 366-371 http://trstmh.oxfordjournals.org/content/90/4/366.abstract	Khon Kaen Province, Thailand	Households in 37 village	A social marketing-based hygiene improvement campaign to promote hand washing, especially before feeding a baby, cooking, eating, and after defaecation or cleaning a baby’s bottom, and dish washing immediately after eating	Behaviors There was a significant improvement in both behaviors in intervention versus control communities Health Diarrhea was less common in young children from the intervention villages, with 11 villages having lower incidence rates of diarrhea than 5 control villages; overall this amounted to a 39% reduction	Quasi-experimental	Probability	5	5: Behavior, Customer orientation, Exchange, Insight, Segmentation, Methods mix

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