World Vision

Health & Nutrition Technical Brief

Timed and Targeted Counselling (TTC):
A Service Package of the CHW Project Model

TTC – A FAMILY-INCLUSIVE BEHAVIOUR CHANGE MODEL

World Vision's Timed and Targeted Counselling (TTC) is a family-inclusive behaviour change communication (BCC) approach targeting families of young children, especially the most vulnerable and marginalized. TTC encompasses a wide range of life-saving health practices through appropriately timed messages delivered using interactive story-telling. It applies a dialogue counselling methodology based on the assessment of current needs and practices and negotiation of progressive improvements. Importantly, TTC seeks to *engage both parents* and decision-makers, embracing a family-inclusive and gender-transformative model of child health and development in which the positive contribution of fathers is emphasized. TTC can be delivered by a range of cadres including officially recognized community health workers (CHWs), guide mothers or volunteers.

THE ISSUES

Since 1990, global child mortality has dropped by 59%, but 5.4 million children still die each year, of which newborns account for one third, and children under five years for two thirds. Despite progress in medical science, 80% of child deaths are due to preventable causes, that can largely be averted by practices such as health facility delivery, prompt care-seeking for childhood illness, appropriate breastfeeding and child nutrition.[1] In addition, studies in child development show that the first 1,000 days are a critical window where foundations for

1. Chou, Victoria B et al. "Expanding the population coverage of evidence-based interventions with community health workers to save the lives of mothers and children: an analysis of potential global impact using the Lives Saved Tool (LiST)." Journal of global health vol. 7,2 (2017): 020401.

lifelong health and mental development are laid down. During this period, undernutrition, poor caregiver mental health, lack of stimulation, poor hygiene and high burden of disease can have permanent negative effects, and mean that children, fail achieve their full potential. CHWs are the most cost-effective way to reach vulnerable families and communities to transform child health. One study modelling community-based primary healthcare impact showed achieving 50% and 90% coverage of key interventions over the period of 2016-2020, could alone have averted between 3 and 6 million child deaths, with Africa predicting the greatest benefit (58% of the lives saved at 90% coverage would be in Africa) . However, CHWs often fail to achieve full impact due to lack of support structures and legitimation in healthcare systems endorsed in the WHO CHW guidelines,[2] to which World Vision's future and existing CHW and TTC programmes need to lend their strength. Furthermore, Social Behavior Change Communication interventions can under-achieve for various reasons, which TTC aims to resolve:

a. Messages may be given too early or too late, whereas in TTC messages are "Timed" at the right time to act;

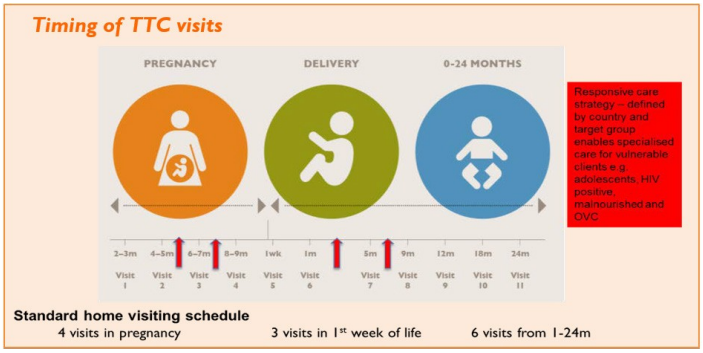
b. CHWs often target only women, and yet culture, gender and family dynamics can be barriers as lack of power, financial resources and influence prevent mothers from taking action, even with the right information - TTC is "Targeted" at women together with their supporters such as husbands, mothers-in-law or grandmothers. TTC uses positive male role models in stories to challenge gender norms;

c. CHWs typically give information, without considering family context, value or feasibility. In TTC they use a barriers assessment interview technique to identify barriers and negotiate change based on circumstance;

d. CHWs often apply a 'one size fits all' approach, yet in reality only reach a portion of the community. TTC (2018 Edition), now aims to assess and track vulnerable families, focusing on family context, especially adolescent mothers, those with physical and mental health or psychosocial difficulties.

GOALS, OUTCOMES AND EXPECTED IMPACT

TTC targets families of young children during pregnancy to two years of life, to promote health behaviours, nutrition and early childhood development (ECD). The dialogue-based counselling methodology, and positive and negative stories is based on Home Based Life Saving Skills (HBLSS) method,[3] but has evolved over time. TTC storybooks depict key themes of positive fatherhood, caregiver mental health, and family decision-making for pregnancy and newborn care and nutrition. A review of CHW curricula by the WHO in 2013[4], found TTC to be one of the most comprehensive life-course models. Messages and topics were based on World Vision's "7-11" strategy[5] for maternal, newborn and child health and nutrition in the 1,000 day period from conception to two years, then updated in 2014 to include ECD, stimulation and play[6] and psychosocial support for maternal mental health,[7] alongside chlorhexidine core care[8], newborn care[9] , care for the small baby[10], and the HIV exposed infants.



Now, the 2018 edition of TTC within the updated CHW model takes a flexible approach, improving CHW systems support, and offering a range of optional modules to enable better fit with national CHW systems. During national adoption of TTC in Ghana, Kenya, Lesotho and Sierra Leone, content was created to cover the full range of CHW service packages, to include household health, WaSH, child health (2-19 years), and emerging areas of adolescent health, and prevention of violence against children. Content has also been developed for Integrated Community Case Management (ICCM) and support to community treatment of malnutrition (Table 1).

2. WHO guideline on health policy and system support to optimize community health worker programmes. World Health Organization, 2018.
3. Sibley L, Buffington ST, Beck D, Armbruster D (2001). Home based life saving skills: promoting safe motherhood through innovative community- based interventions. J Midwifery Womens Health. 2001 Jul-Aug;46(4):258-66.
4. Tran et al., 2014 'Developing Capacities of Community Health Workers in Sexual and Reproductive, Maternal, Newborn, Child, and Adolescent Health: A Mapping and Review of Training Resources'. PLoS ONE 9(4): e94948.
5. The 7-11 Start Up Field Guide. http://www.wvi.org/health/publication/7-11-start-field-guide
6. Lancet Series. 'Child Development in Developing Countries' Series 1 (2007) & 2 (2011).
7. Lancet series. 'Perinatal Mental Health'. November 14, 2014
8. Imdad et al. 'Umbilical cord antiseptics for preventing sepsis and death among newborns'. Cochrane Systematic Reviews 2013, Issue 5. CD008635.
9. WHO/UNICEF Joint Statement (2009), 'Home visits for the newborn child: A strategy to improve survival'. WHO/FCH/CAH/09.02
10. World Health Organisation, 'Care of the preterm and/or low-birth-weight newborn'.

Table 1. A Modular TTC Service Package to improve alignment with MOH systems

TTC Basics Module

Basic skills
- Negotiation & dialogue counselling
- Behaviour change communication
- Barriers analysis
- Communication skills
- Caregiver Mental health & psychosocial support (MHPSS)

Community engagement
- Community mapping and registration
- Community disease surveillance/CDS
- HH vulnerability assessment
- Community mobilization
- Male involvement

TTC for Maternal, Newborn & Child health (0-2 years)

- Maternal health and nutrition
- Newborn & postnatal care
- Infant and young child feeding
- Early child development (ECD)
- Care for vulnerable pregnancies (Malaria/vector prevention, WASH, adolescents, and HIV)
- Care of the small baby
- Care of the malnourished child

TTC Additional modules (2 -19 years; women/men of reproductive age)*

Household health:
- Sanitation and waste disposal
- Environmental health
- Safe water access and storage
- Malaria/vector prevention
- ECD and child protection
- Nutrition and food security

Family health
- Child health & nutrition (2-5 years
- Child & Adolescent health (2-19 yrs.)
- Sexual health and HIV/ AIDS
- Family planning
- Healthy lifestyles

Community-Based Care Module

- Community-based Care for malnutrition (CMAM)
- Integrated community case management (iCCM)*

- First aid for common conditions & injuries
- Community-based Care for HIV/TB*
- Non-communicable diseases (NCDs)
- Mental health and disability

** Name on existing documents is "Healthy Families", subject to CHW CPM revision; also packaged as individual sessions*

LAIGNMENT WITH OUR PROMISE AND THE SDGS

TTC contributes to the following Child Wellbeing Outcomes: CWBO #5: Children are well-nourished, and CWBO #6: Children are protected from infection, disease and injury. By promoting play and stimulation in early life it contributes to CWBO #7 "Children are educated for life and enabled to fulfil their potential". TTC aligns to Our Promise by deepening commitment to vulnerable families, enabling better use of resources by partnering with communities and health systems to strengthen CHW programmes.

TTC is aligned directly to several of the Sustainable Development Goals:

SDG 2.2 By 2030 end all forms of malnutrition, achieving targets on stunting and wasting

SDG 3.1 By 2030, reduce the global maternal mortality ratio.

SDG 3.2 By 2030, end preventable deaths of newborns and children under 5 years of age

SDG 3.3 By 2030, end the epidemics of AIDS, tuberculosis, malaria/communicable diseases

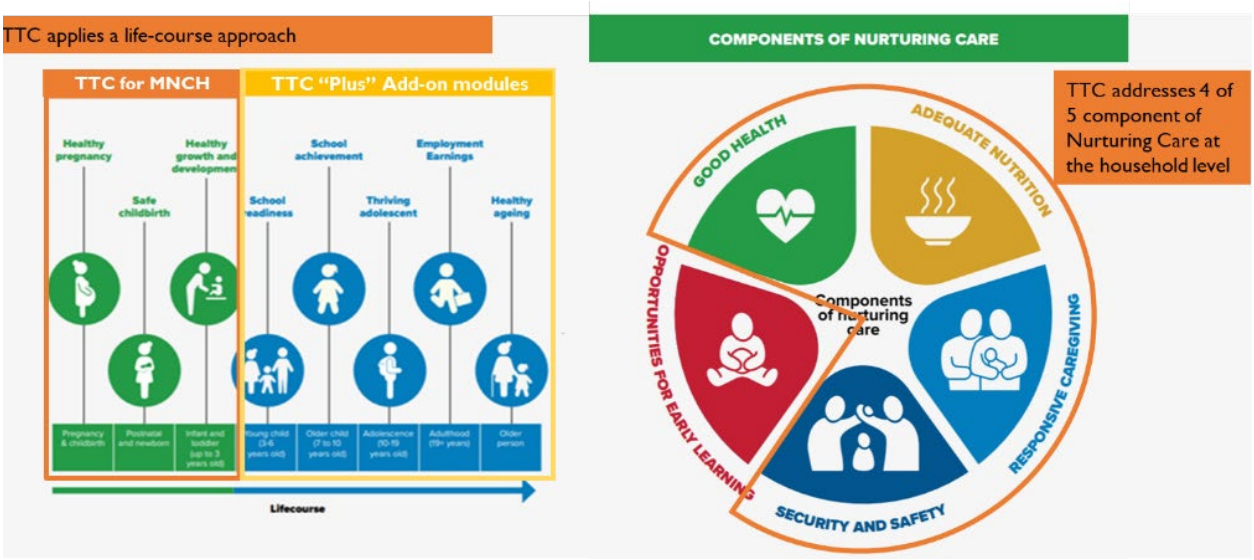
SDG 3.4 By 2030, reduce by one third premature mortality from non-communicable diseases

SDG 4.2 By 2030, ensure access to quality early childhood development, care & pre-primary education

The WHO's Global Strategy for Women's, Children's and Adolescents' Health (2016-2030) and the Sustainable Development Goals outline a vision where all children and families are supported to ensure optimum conditions to survive, thrive, and fulfil their potential. The WHO's Nurturing Care framework[11] articulates 5 components to be applied through a life course approach, with which TTC has a high level of agreement (Figure 1).

11. Nurturing care for early childhood development: a framework for helping children survive and thrive to transform health and human potential ISBN 978-92-4-151406-4 © World Health Organization 2018

Figure 1. How TTC aligns to the Nurturing Care Framework



CORE COMPONENTS OF THE TTC PROJECT MODEL

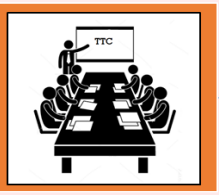
The TTC-HVs conduct home visits for pregnant women to promote antenatal care and planning for skilled care at birth. They visit newborns in the hours and days following birth, identify danger signs and refer appropriately, and advise on appropriate home care for the newborn. They continue to visit families at regular intervals until the child reaches 2 years of age, delivering messages to the family members throughout this important period in the child's life. In the 2018 edition, HV also conduct routine visits for families of children aged 2-19 years to assess other household and family health issues.

BOX 1: KEY TASKS OF A TTC HOME VISITOR

1. Define community catchment and characteristics.
2. Conduct sensitization with leaders, groups and faith communities.
3. Register all families and identify vulnerable families.
4. Register pregnancies & children under 2 or 5 years *(per context).*
5. Conduct TTC home visits by schedule:
   - Assess current health practices and gaps
   - Assess health/nutrition of newborns and young children
   - Engage family in dialogue (using storybooks)
   - Track behaviour change using Household Handbook
   - Follow up support, especially for vulnerable cases
6. Provide referral support and follow up within 48 hours.
7. Collect and report information to supervisors, health services and community health committees (TTC registers).
8. Engage stakeholders to advocate for community health needs (TTC community scoreboard).

WHAT HAPPENS IN TTC?

1. COMM & DHA engagement and selection of supervisors

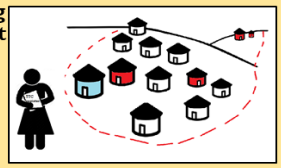


2. Community mobilisation

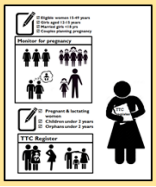
3. CHV selection

4. CHV and supervisor training

1. Mapping catchment areas



2. Register families and identify target groups

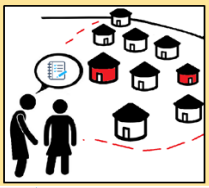


3. Conduct home visits

4. Assess and refer sick patients

5. Supportive care visits for more vulnerable clients

6. Supportive supervision



7. Submit reports attend monthly meeting

8. Community action planning

1. Compile data reports

2. Support & motivate volunteers

3. Strengthen program

Program staff tasks:

1. Engage the COMM and district health authorities, in planning, select supervisors.
2. Community sensitisation
3. Community selection of CHVs
4. Training CHVs and supervisors

TTC-HV tasks:

1. Define catchment area and develop community profile
2. Register all families in her zone, and identify eligible women and girls and TTC target group
3. Conducted timed home visits by schedule; Engage family in dialogue (stories) and track behaviour change (Household handbook) and registers
4. Visit and refer patients with any danger signs
5. Supportive care visits for more vulnerable families
6. Participate in individual supportive supervision visits
7. Submit monthly report at meetings and participatory analysis using TTC scoreboard
8. Engage COMM/CVA and PHU to address barriers (TTC scoreboard)

Program staff tasks:

1. Compile TTC key indicators into TTC dashboard & HMIS
2. Support and motivate volunteers
3. Use data to guide program improvements

GOAL, OUTCOMES, EXPECTED IMPACT.

Goals: Improved outcomes for pregnancy and child health, nutrition and child development

Outcomes: Increased adoption of household behaviours, especially improved breastfeeding and complementary feeding practices for young children, care-seeking behaviour and uptake of health services

Target populations: (1) Pregnant women and children under 2 years (including orphans and looked after children). (2) Women and girls of childbearing age to promote health pregnancy timing and spacing and (3) the most vulnerable families who might need additional support.

Theory of Change: The expected outcomes of TTC are based on the assumptions outlined in Figure 3 – that CHW/Vs are trained, supervised and motivated to conduct good quality care and coverage, that health services are available, accessible and good quality, and that communities and families are supportive of health practices. Thus, TTC is typically implemented alongside other social norms change models such as Channels of Hope, or Community systems strengthening such as Citizens voice and advocacy or COMM.

THE EVIDENCE BASE

Since its inception in 2010, TTC has been implemented in 38 countries. Evidence includes impact evaluations from 10 countries and research contributing to a diverse portfolio. TTC has demonstrated consistent impact on behaviours determined at the household level such has hygiene, newborn care and appropriate breastfeeding behaviour. TTC's impact on newborn care and breastfeeding alone contribute to a high estimate of Lives Saved (LiST) and cost effectiveness as demonstrated through research undertaken in Jerusalem and West Bank, and the AIM Health Grant (Table 3). Results from grant-based evaluations include some of the following key findings:

1. Pragati study, World Vision India, FHI360 - the four-year USAID-funded Pragati project[12] in India showed improvements across a range of health behaviours, and family planning more than doubled;

2. Ethiopia Alive and Thrive project – TTC delivered by peer mothers found improvement in IYCF practices, reduced need for therapeutic feeding, improved treatment of diarrhoea, in a 'dose-response' effect, i.e. more visits led to more improvement.[13] The Ministry of Health approved scale-up in 28 districts.

3. A cost-effective scale-up in Palestine - TTC implemented by CHWs found high impact on practices related to newborn care, reduced harmful newborn practices, improved IYCF and care-seeking. A cost-effectiveness analysis found a cost per life saved of $197 USD, therefore TTC is highly cost-effective. [14]

4. East Africa MNCH grant funded by AusAID - A 3-year TTC/CVA project in Kenya, Uganda, Rwanda and Tanzania, demonstrated consistently positive effects for IYCF indicators across all four countries, wasting/underweight in children was reduced in 3 of 4 countries and stunting reduced in 2 of 4 countries.

5. Programme Partnership Agreement (PPA) DFID program – A 6-year DFID-funded programme implemented TTC and CVA in Sierra Leone (SL), Kenya and Somalia, evaluation was further accompanied by a 'Realist Analysis' to look at qualitative elements of implementation identified challenges and success-factors such as (1) importance of integration with the National CHW programme (2) loss of fidelity of the model (3) intensive start-up requirements (4) variable targeting of vulnerable groups (5) variable commitment to gender-equity component of TTC (5) High CHW/V workloads and (6) insecurity leading to high turnover and loss of quality in fragile contexts.

6. IrishAID Funded AIM Health program - implemented TTC in Kenya, Tanzania, Uganda, Mauritania and Sierra Leone. Exclusive breastfeeding met or exceeded the programme target of 80 percent in all locations with six locations exceeding 90 percent. A Lives-Saved analysis estimated up to 71% and 28% reduction in newborn and maternal deaths (Table 2), except for Sierra Leone during the 2015 Ebola outbreak.[15]

Table 2: Lives Saved (LiST) analysis from AIM Health program

AIM Health Programme Sites	Neonatal Mortality			Under-five Mortality			Maternal Mortality		
	2012	2015	% Change	2012	2015	% Change	2012	2015	% Change
Mutonguni, Kenya	19	13.5	**30.91**	72	52	**27.72**	518	427	**17.50**
Mundemu, Tanzania	21	6	**71.43**	61	52	**14.75**	486	372	**23.46**
Sanzawa, Tanzania	21	11	**47.62**	94	61	**35.11**	486	393	**19.14**
Busla, Uganda	19	12	**38.03**	115	65	**43.67**	416	327	**21.51**
North Rukiga, Uganda	26	10	**61.46**	185	98	**46.93**	416	297	**28.62**
Guerrou & Mbagne, Mauritania	52	40	**24.10**	170	116	**31.43**	732	702	**4.07**
Imperi, Sierra Leone	23	17	**23.47**	194	280	**-44.44**	1509	1347	**10.7**
Sherbro, Sierra Leone	24	21	**15.83**	143	197	**-37.73**	1580	1524	**3.55**

Table 3. Selected project TTC evaluation findings **ExBF= exclusive breastfeeding; EiBF = Early initiation of breastfeeding ***

Project	Indicators	% increase from baseline
India (4 years)	Exclusive breastfeeding	↑ 23%-48%
	Timely initiation of semisolid foods	↑ 15%-66%
	Vitamin A supplementation in children 12-23m	↑ 3% to 100%
	Full immunization in children 0-23m	↑ 30% to 50%
Jerusalem, West Bank & Gaza (3 years)	Minimum meal frequency	↑ 10.6 to 55.1%
	Consumption of iron rich food	↑ 14.9 to 41.2%
	Minimum meal diversity	↑ 14.9 to 39.7%
	Introduction of food at six months	↑ 33.8 to 44.1%
	Early initiation of breastfeeding	↑ 28 to 40%
	Exclusive breastfeeding	↑ 26 to 45%
	No bottle feeding	↑ 27.6 to 45.6%
Ethiopia Alive & Thrive	Early initiation of breastfeeding (%)	↑ 68.6% to 75.2%
	Pre-lacteal feeding (%)	↓ 7.4% to 3.3%
	Colostrum feeding (%)	↑ 69.0 to 82.8%
	Exclusive breastfeeding (EBF) (%)	↑ 81.0% to 82.8%
Somalia DFID-funded PPA evaluation	Antenatal care coverage %	↑ 58.2% to 98.1%
	Vaccine completion %	↑ 48.5% to 84.6%
	Appropriate care seeking for diarrhoea %	↑ 24.8% to 76.2%

EAMNCH 4-country project (AusAID)

Kenya		Rwanda		Tanzania		Uganda	
ANC coverage	(34%→69%)	Post-natal care	(20%→90%)	ExBF four-fold	(10%→40%)	ANC coverage	(60%→84%)
Skilled birth attendance	(44%→68%)	Family planning	(59%→97%)	Early initiation of BF	(26%→68%)	PNC coverage	(58%→88%)
ExBF rates tripled	(22%→63%)			Handwashing	(65%→85%)		
EIBF doubled	(28%→68%)						
Family planning	(16%→28%)	Stunting reduced	(49%→41%)	Underweight halved	(30%→14%)	Wasting/underweight no change	
Wasting reduced	(15%→10%)	Underweight reduced	(8%→5%)	Wasting halved	(6.8%→3%)	Stunting reduced	(29%→23%)

12. World Vision US/USAID (2009) "The Right Messages—to the Right People—at the Right Time" www.wvi.org/sites/.../World%20Vision%20India%20Case%20Study.pdf
13. Final Evaluation Report: World Vision Alive & Thrive Operations Research (2012) http://aliveandthrive.org/countries/ethiopia/
14. How many lives did ttC save in Palestine and at what cost? A. Trujillo 2013. http://www.annalsofglobalhealth.org/article/S2214- 9996(15)00922-4/fulltext
15. Midterm evaluation of the Bonthe AIM health program showed strong positive trends up to 2014, however the ebola epidemic dramatically cut uptake of health services at facilities, which had a strong negative impact on the Lived Saved findings.

COST PER BENEFICIARY

Costs of TTC are weighted heavily at started up due to training and production of materials. Estimated costs per beneficiary amongst several countries are shown below. The table below shows the estimated cost per child under 5 per year as US$5.36 This data excludes the Palestine project, where cost per life saved was estimated at $197 per life saved, as cost-per-beneficiary in this setting was based on CHWs receiving a full-time salary, which is not the case in any of the other programmes.

Cost (US$) per beneficiary for TTC

Country	Total population	Children 0–18	Children 0–5
Afghanistan	0.2	0.8	0.99
Armenia	1.04	5.17	14.3
Lebanon	0.12	0.32	1.61
Uganda	0.86	1.86	4.55
Average	**0.55**	**2.04**	**5.36**

Note: Cost for children age 0–5 are estimated based on UNICEF data and some ADPs/ districts may have larger or smaller populations and thus higher or lower costs.

IMPLEMENTATION AND SCALE

Table 4. Selected project TTC evaluation findings

Asia Pacific and East Asia	Middle east and Eastern Europe	East Africa	Southern Africa	West Africa	Latin and Central America
India	Afghanistan	Ethiopia	Malawi	Mauritania	Bolivia
Papua New Guinea (PNG)	JWBG	Kenya	Mozambique	Sierra Leone	Ecuador
Cambodia	Armenia	Rwanda	Eswatini*	Ghana	Guatemala
	Jordan	Burundi	Zambia	Mali	Haiti
		Somalia	South Africa	Niger	Honduras
		Tanzania	Lesotho	Senegal	Peru
		Uganda	DRC		Dominican Republic
		Somalia			

INNOVATIONS & TECHNOLOGY

TTC mHealth Application - The CommCare-based mTTC app enables real-time data reporting, sends reminders for visits and follow up, and includes audio-visuals in local languages and press-play messages. mTTC has been used in 7 countries with 4000 users, and reports show improved quality of data and timely referral.

ICCM integration – Several countries the ICCM have been integrated within TTC and the mTTC app;

Healthy Families – Ghana, Kenya, Lesotho, DRC and Haiti have all included Healthy Families module in TTC

CMAM support and the nutrition root cause assessment – CHWs in Sierra Leone, Mauritania, Ghana all include a root cause assessment at household level for CHWs implementing CMAM support;

Prevention of child marriage – module and storybooks have been developed and being tested in Mauritania;

Prevention detection and reporting of violence against children – a training module, storybooks and referral forms for prevention and referral has been developed and is being tested in Lesotho and Haiti.

LINKS TO KEY DOCUMENTS

1. TTC project model
2. TTC Home page
3. TTC 2018 Curriculum

World Vision is a Christian relief, development and advocacy organisation dedicated to working with children, families and communities to overcome poverty and injustice. Inspired by our Christian values, we are dedicated to working with the world's most vulnerable people. We serve all people regardless of religion, race, ethnicity or gender.

We believe a world without violence against children is possible, and World Vision's global campaign It takes a world to end violence against children is igniting movements of people committed to making this happen. No one person, group or organisation can solve this problem alone, it will take the world to end violence against children.