



EMPHASIS End-Line Survey Report

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List of Acronyms

Acronym	Definition
AIDS	Acquired Immunodeficiency Syndrome
ATE	Average treatment effect
ATT	Average treatment effect of the treated
BL	Baseline
BSP	Bengali Speaking Population
CBO	Community Based Organization
CRC	Community Resource Center
CTRL	Control Group
DIC	Drop in Center
EL	End-line
EMPHASIS	Enhancing Mobile Populations' Access to HIV/AIDS Services Information and Support
FGD	Focus Group Discussion
FCF	First Contact Form
FP	Family Planning
FSW	Female Sex Worker
HH	Household
HIV	Human Immunodeficiency Virus
ICTC:	Integrated Counselling and Testing Centre
IP	Impact Population
KII	Key Informant Interview
NGO	Non-Governmental Organization
NMP	Nepali Migrant Population
ODI	Overseas Development Institute
ORW	Outreach Worker
PE	Peer Educator
PI	Principal Investigator
PLHA	People with HIV and AIDS
PSM	Propensity Score Matching
SRS	Simple Random Sample
PSU	Primary Sampling Unit
SHG	Self-Help Groups
STI	Sexually Transmitted Infection
TA	Technical Advisor
UNAIDS	Joint United Nations Program on HIV and AIDS
VCT	Voluntary Counselling and Testing
VCTC	Voluntary Counseling and Testing Center
VDC	Village Development Committee
VHW	Village Health Worker

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Finally, we wish to acknowledge the generosity and hospitality of the many communities, households and individuals that took time from their day to sit, speak, and share their knowledge with the interviewers. It is our sincere hope that India, Nepal, Bangladesh, the mobile populations between the three countries, and other development practitioners in this region will benefit from this study and experience sustainable improvements to migratory HIV and AIDS programming.

Executive Summary

CARE's Enhancing Mobile Population's Access to HIV and AIDS Services Information and Support program (EMPHASIS) is a 5 year program, which began in 2009, implemented in CARE Country offices in India, Nepal and Bangladesh. EMPHASIS aims to address cross-border mobility-related vulnerabilities focusing primarily on HIV and AIDS and gender programming for mobile and at-risk populations. EMPHASIS is funded by the Big Lottery Fund, UK.

The CARE EMPHASIS project team identified key project and outcome indicators to measure the success of the project. These indicators were drawn from the project log-frame; EMPHASIS specifically designed its interventions to achieve measurable progress across these indicators. The primary goal of the end-line survey activity was to collect the required data to measure the progress of these key project and outcome indicators longitudinally to the baseline data and between purposefully selected control populations at the end-line activity.¹

The progress of the key project indicators can be found in Table 1 (Nepali migrant populations) and Table 2 (Bengali speaking population). These tables measure indicator progress from baseline to end-line, and across the end-line impact population and end-line control populations. The progress is measured using three methods: 1) t-tests measuring the statistical difference of means between the relevant populations, 2) propensity score matching to measuring the average treatment effect (ATE) of EMPHASIS programming, and 3) propensity score matching to measure the average treatment effect on the treated (ATT) of EMPHASIS programming.²

The overall impacts of the CARE EMPHASIS project – when using the aforementioned methods – are large and statistically significant, across nearly all key project indicators and populations. For example, the percentage of Nepali migrant population (NMP) respondents to receive EMPHASIS programming who were able to identify at least two major modes of transmission of HIV at the end-line is 96.4 percent (Table 1). At the baseline, only 75.9 percent of respondents could identify at least two major modes of transmission of HIV, while 90 percent of the end-line control population correctly identified at least two major modes of transmission. The observed difference between the EMPHASIS treated population and the control groups is not negligible. The ATE and ATT estimates show a program effect that is relatively and statistically significant; a causal magnitude of the impact between 10 and 50 percent³ – suggesting the project has had a decisive impact on the knowledge level of its impact populations. These results are not isolated to this one example; the results hold for each of the indicators that CARE EMPHASIS had identified in their log-frame.

When comparing the effectiveness of CARE EMPHASIS interventions, the end-line impact population is compared to the baseline population and the control population. The differences between these two results in Table 1 and Table 2 are mostly homogeneous. Two indicators, across two populations, present

¹ The baseline survey was conducted by Nielson Company in 4th quarter 2010 and 1st quarter 2011.

² A theoretical overview of the propensity score matching methods used can be found in section 2.5 and appendix H.

³ ATT and ATE effect for “% of respondents to identify at least two major modes of transmission of HIV” across the four strata populations.

cases with a conflict in the findings between the end-line impact populations compared to the baseline versus the end-line impact populations compared to the control population. The three cases are:

1. Percentage of migrants currently in India who are provided health care benefits from their employer [INDIA NMP]
2. Percentage of migrants currently in India who receive same type of overtime pay as their Indian counterparts [INDIA NMP]
3. Percentage of migrants currently in India who receive same type of overtime pay as their Indian counterparts [INDIA BSP]

The baseline data collection activity faced difficulty sampling from a list of randomly selected individuals, and thus achieved the majority of its sample using a snowball sampling technique (The Nielsen Company, 2011). This limitation in the baseline sampling frame likely introduced a level of selection bias that cannot be controlled for or corrected by propensity score matching. Therefore the comparison between the end-line impact population and the end-line control is the preferred approach throughout the report. In an effort to limit report length and the number of overly complicated tables, the majority of the tables presented compare the end-line impact population with the end-line control population only⁴. There are additional supplementary tables aimed to inform CARE EMPHASIS and its partner organizations on the current status of its impact populations compared to control populations. The additional tables, while not providing direct support to this report, have been provided for CARE EMPHASIS's benefit in the Appendix documents. In addition to the indicators presented in Table 1 and Table 2, propensity scores have been estimated on other key outcome indicators, with comparable positive findings. These indicators are included in the text of this report and can also be found in annex A through annex C.

The household demographics of EMPHASIS impact population is closely aligned with the household demographics of the end-line control populations. This provides support that the end-line control locations were appropriately chosen. Another example of the positive EMPHASIS impact is the clear difference between the end-line impact population and both baseline and control populations when looking at the access of employer accident compensation (Table 1 and Table 2). This effect is significant and large, specifically for male individuals.

The results of the end-line activity clearly demonstrate the success and impact of the CARE EMPHASIS project. The findings in this report, particularly from the key project and outcome indicators, offer strong evidence that CARE's EMPHASIS program has had a positive and significant impact on each of the four key impact populations: India Nepali Migrant Populations (NMP and India Bengali Speaking Populations (NSP) individuals within India and Nepali and Bengali households in the source countries. Positive program effects are found across key project indicators, outcome indicators, and other additional indicators.

⁴ In addition the level of effort required to fully synthesis all data from the baseline to the end-line is substantial (See limitation 5 section 2.5 for a more clear explanation).

Table 1: CARE EMPHASIS key indicators (NMP source and destination)

Indicator	Point Estimates			Difference in means (unmatched)		Difference in means Treatment Effect (ATE)		Regression Treatment Effect (ATT)	
	BL (2011)	EL (CTRL)	EL (IP)	Difference to BL	Difference to CTRL	Difference to BL	Difference to CTRL	BL - EL Treatment	CTRL - EL Treatment
India (NMP)									
Percentage of respondents who can identify at least two major modes of transmission of HIV	75.9	90.0	96.4	20.5***	6.4***	19.7***	20.1***	20.7***	21.0***
<i>Sample size</i>	506	229	445						
Percentage of respondents who reject at least 2 major misconceptions about HIV transmission	88.1	97.8	99.6	11.4***	1.7**	12.2***	19.3***	12.7***	20.1***
<i>Sample size (Respondents aware of HIV and AIDS)</i>	506	229	445						
Percentage of respondents who can discuss HIV with their spouse and partners	24.3	26.0	49.5	25.2***	23.4***	25.4***	35.4***	20***	36.2***
<i>Sample size</i>	383	123	281						
Percentage of respondents reporting having used a condom with non-regular partner on the last occasion of having sex	83.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Sample size</i>	61	7	25						
Percentage of migrants currently in India who are provided accident compensation from their employer	4.3	1.2	8.7	4.3***	7.5***	1.5	7.1***	1.7	7.9***
<i>Sample size</i>	530	417	473						
Percentage of migrants currently in India who are provided health care benefits from their employer	6.8	0.7	5.9	-0.9	5.2***	-3.9**	5.4***	-4.1**	5.5***
<i>Sample size</i>	530	417	473						
Percentage of migrants currently in India who receive same type of overtime pay as their Indian counterparts?	65.7	23.7	50.1	-15.6***	26.4***	-23.6***	13.2***	-22.7***	10.0***
<i>Sample size</i>	530	417	473						
Nepal									
Percentage of respondents who can identify at least two major modes of transmission of HIV	91.4	83.3	95.4	4.0**	12.1***	13.9***	14.5***	13.7***	18.2***
<i>Sample size</i>	406	420	435						
Percentage of respondents who reject at least 2 major misconceptions about HIV transmission	90.1	95.7	97.9	7.8***	2.2*	16***	3.3	15.7***	3.4
<i>Sample size</i>	406	420	435						
Percentage of respondents who can discuss HIV with their spouse and partners	49.2	26.8	84.6	35.4***	57.8***	25.7***	66.9***	23.6***	69.8***
<i>Sample size[†]</i>	392	41	52						
Percentage of respondents reporting having used a condom with non-regular partner on the last occasion of having sex	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Sample size</i>	4	14	17						

Statistically significant at the 10% (*), 5%(**) or 1%(***) levels

[†] The end-line survey did not ask questions around spousal issues if the respondent stated they had never been in a sexual relationship. In Nepal, upon completion of fieldwork, it was discovered there was a misunderstanding on the definition of "sexual relationship."

Table 2: CARE EMPHASIS key indicators (BSP source and destination)

Indicator	Point Estimates			Difference in means (unmatched)		Difference in means Treatment Effect (ATE)		Regression Treatment Effect (ATT)	
	BL (2011)	EL (CTRL)	EL (IP)	Difference to BL	Difference to CTRL	Difference to BL	Difference to CTRL	BL - EL Treatment	CTRL - EL Treatment
India (BSP)									
Percentage of respondents who can identify at least two major modes of transmission of HIV	62.5	90.3	98.4	35.8***	8.0***	33.5***	35.7***	29.1***	35.5***
<i>Sample size</i>	379	217	368						
Percentage of respondents who reject at least 2 major misconceptions about HIV transmission	35.9	97.7	99.2	63.3***	1.5	57.6***	34.7***	55.4***	35.6***
<i>Sample size</i>	379	217	368						
Percentage of respondents who can discuss HIV with their spouse and partners	22.6	8.3	48.1	25.5***	39.8***	26.2***	39.6***	21.7***	41.1***
<i>Sample size</i>	301	133	258						
Percentage of respondents reporting having used a condom with non-regular partner on the last occasion of having sex	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Sample size</i>	3	11	3						
Percentage of migrants currently in India who are provided accident compensation from their employer	0.3	1.2	10.0	9.7***	8.8***	6.6***	7.2***	9.8***	9.1***
<i>Sample size</i>	324	426	411						
Percentage of migrants currently in India who are provided health care benefits from their employer	0.3	0.9	1.2	0.9	0.3	0.9	0.2	1.8	1.0
<i>Sample size</i>	324	426	411						
Percentage of migrants currently in India who receive same type of overtime pay as their Indian counterparts	66.0	21.8	27.5	-38.6***	5.7*	-35.5***	3.7	-35.2***	4.9
<i>Sample size</i>	324	426	411						
Bangladesh									
Percentage of respondents who can identify at least two major modes of transmission of HIV	66.2	44.7	86.6	20.4***	41.9***	31.0***	51.4***	29.5***	49.8***
<i>Sample size</i>	293	311	438						
Percentage of respondents who reject at least 2 major misconceptions about HIV transmission	46.8	65.3	89.5	42.7***	24.2***	48.8***	41.7***	45.6***	40.5***
<i>Sample size</i>	293	311	438						
Percentage of respondents who can discuss HIV with their spouse and partners	28.6	21.5	58.6	30.0***	37.1***	28.8***	38.3***	29.8***	38.5***
<i>Sample size</i>	273	191	246						
Percentage of respondents reporting having used a condom with non-regular partner on the last occasion of having sex	N/A	30.6	63.2	N/A	32.6***	N/A	2.0	N/A	2.3
<i>Sample size</i>	3	36	45						

Statistically significant at the 10% (*), 5%** or 1%(***) levels

1. Background

1.1 EMPHASIS Overview

Enhancing Mobile Populations' Access to HIV and AIDS Services Information and Support, or EMPHASIS, is a UK Big Lottery Fund (BIG) funded project implemented by CARE in India, Nepal and Bangladesh. The aim of EMPHASIS is “to reduce the vulnerabilities to HIV and AIDS among mobile populations crossing the borders of Bangladesh and Nepal into India” (Sultana, Das, Samuels, & Zarazua, 2011). EMPHASIS works at the migrant, systems and policy levels in an effort to create an environment of safer mobility and reduced HIV and AIDS vulnerability.

The HIV prevalence rate in each EMPHASIS country has remained relatively unchanged in recent years. India, Nepal, and Bangladesh have maintained national prevalence rates of 0.3 percent, 0.3 percent and 0.1 percent respectively between 2010 and 2012 (World Bank 2014). EMPHASIS focus its' programing on mobile persons who face increased risks to HIV and AIDS through work, life environments and travel corridors between migratory work places and countries of origin.

The EMPHASIS program began formative research and establishing country offices in August of 2009, with outreach work starting simultaneously.

1.2 EMPHASIS Profile

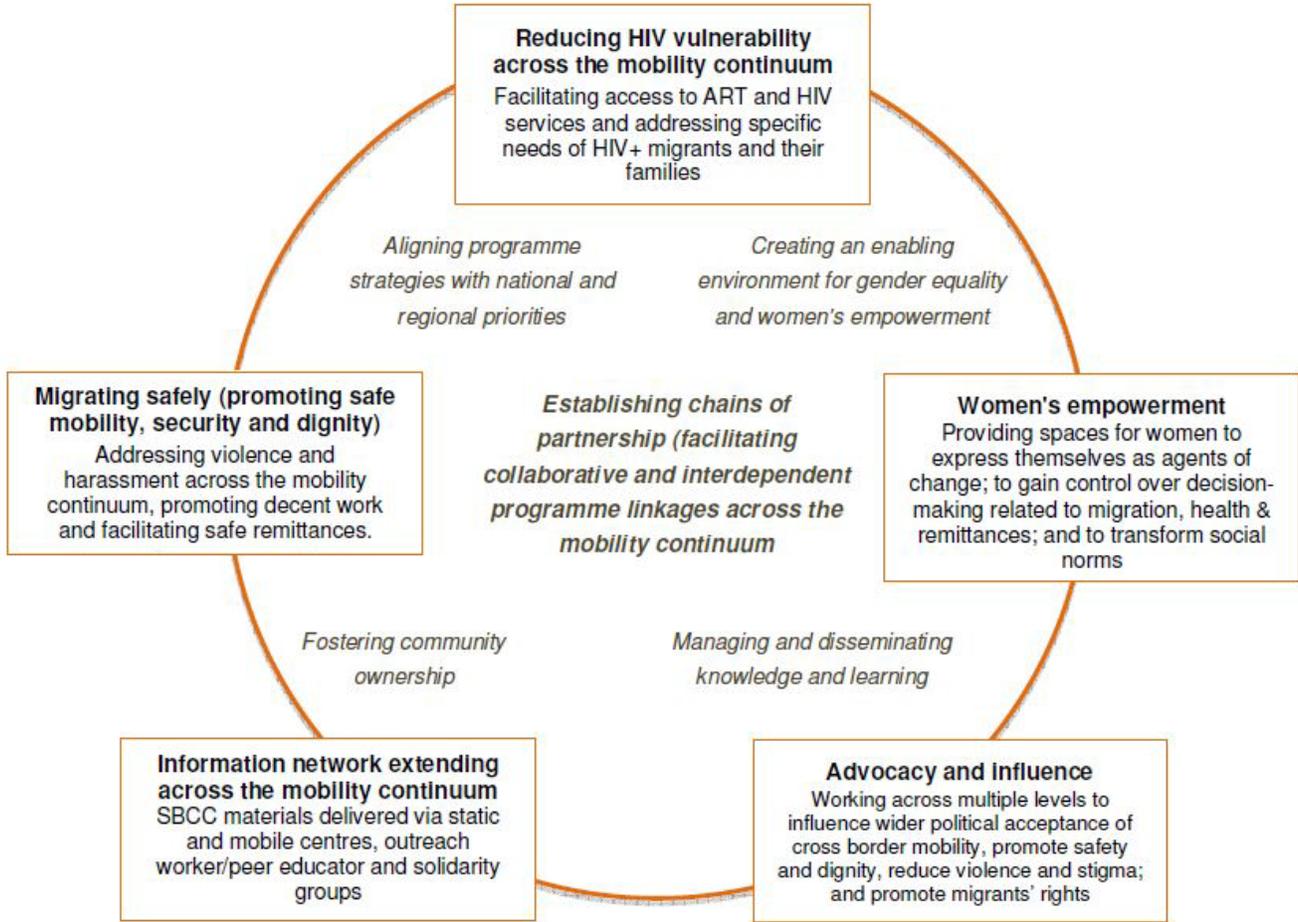
1.2.1 EMPHASIS Strategic Objectives

The overall goal of the EMPHASIS program is to contribute to reduce vulnerability of mobile populations, particularly women, to HIV infection across selected cross border regions within India, Bangladesh and Nepal. Under this goal EMPHASIS has worked towards implementing an integrated cross border model of HIV prevention, care, treatment and support with its impact populations.

EMPHASIS is also working with private and public partner organizations to build their HIV and AIDS risk reduction capacity and to bring a greater level of country and regional recognition to HIV and AIDS to individuals, businesses, and governments in South Asia. As Figure 1 highlights, the key EMPHASIS programing included:

- Reduce HIV vulnerability across the mobility continuum
 - Women's empowerment
 - Advocacy and Influence
 - Information network extending across the mobility continuum
 - Migrating safely (promoting safe mobility, security and dignity).
-

Figure 1: A comprehensive model for working with mobile populations across the mobility continuum



*Figure 1 from EMPHASIS Learning Series (Storer, 2014)

1.2.2 EMPHASIS Intervention Areas and Impact Populations

EMPHASIS programming has targeted specific locations where migrant workers face increased vulnerability to HIV and AIDS across three countries and two main migration corridors, specifically focusing on migrant workers, and their families. In India, EMPHASIS has worked with BSP and NMP populations in the cities of Mumbai, Delhi and West Bengal as well as at transit locations.⁵ In Nepal, EMPHASIS has worked with NMP populations located in the districts of Kanchanpur and Achham whereas in Bangladesh, the program has worked in the districts of Jessore and Satkhira. In addition, EMPHASIS has worked in transit locations between India and Nepal and between India and Bangladesh.

The end-line survey study collected information from NMP and BSP populations in the destination cities of Delhi and Mumbai, and source locations in Nepal and Bangladesh. West Bengal was not included in the end-line survey. It did not have both NMP and BSP populations so the marginal cost to collect

⁵ West Bengal was not included in the end-line survey.

additional BSP populations was high, and therefore it was omitted to ensure sufficient resources were available to capture quality and accurate data from control and impact populations in both the source and destination countries.

Table 3 presents an overview of EMPHASIS key interventions, how they support the associated outcomes from the log-frame,⁶ and the locations that the specific interventions and services are provided.

Table 3: EMPHASIS Interventions

Interventions	Services	Location(s)
HIV and Safe mobility information and support services (Outcome 1)	Peer Education through door to door outreach or at drop-in-center/community resource centers	All locations in India ; Bangladesh; Nepal
	Drop-in-center/community resource center/mobile DIC	All locations in India ; Bangladesh; Nepal
	Referral	All locations in India ; Bangladesh; Nepal
	VCT and STI/health camp	India and Nepal
	STI satellite clinic at Community clinic and Drop-in -center	Bangladesh
	Community Support group	Selected locations in three countries
Capacity building (Outcome2)	Capacity building on VCT and STI	Bangladesh and India (STI)
	Sensitization and engagement of health service providers	All locations in India ; Bangladesh; Nepal
	Sensitize and engage stakeholders for safe mobility	Both sides of Nepal/India border
	Sensitize employers to ensure rights of Nepalese migrants	Nepalese Migrant Populations(NMP) in India
	Capacity building of partner staff	Three countries
	Capacity building of CBO	Nepal
Evidence based Advocacy (Outcome 3)	Advocacy at local ,national and regional level	Three countries (each country has some specific areas of advocacy)
Special focus	Spouse group/self-help group of women	Selected locations in three countries
	Health system strengthening	Bangladesh
	Engagement with Monitory Institutions to promote safe remittance	Nepal India

*Table provided by CARE EMPHASIS team

⁶ The EMPHASIS log-frame mapped to key indicators in Table 1 and Table 2 is found in Table 76 in Annex E.

1.3 EMPHASIS End-line Survey Objectives

The EMPHASIS End-line survey, and this associated report, has four primary objectives:

1. Assess project achievement towards key EMPHASIS project indicators (Table 1 and Table 2).
2. Measure the overall achievements towards an effective and integrated cross border model of HIV Prevention, care, treatment and support of individuals at the impact population level at source and destination locations (Table 1 and Table 2).
3. Compare and measure key cross-sectional end-line differences and longitudinal changes of key knowledge, attitudes and practices (KAP) questions between; the baseline study and end-line impact population, and purposefully selected end-line control locations to end-line impact population (Table 1, Table 2, Table 45, Table 74 and Table 75)
4. Determine whether the community impact population environment is enabling for cross-border mobile populations (Table 65 through Table 67; Table 72 ,Table 73)

2. Survey Design and Methodologies for End-line Survey

TANGO International and the CARE EMPHASIS team, along with considerable support from ODI, considered the benefits and limitations of various survey designs and methodologies for the end-line survey, including available resources and time constraints. The agreed upon design allows for a robust and rigorous approach, allowing key indicators (Table 1 and Table 2) to be measured longitudinally from baseline to end-line and for comparisons between end-line impact populations and purposefully selected end-line control populations. Due to the transient nature of the study populations, it was not possible to revisit the same respondents as those interviewed during the baseline activity. ODI encouraged and supported the utilized propensity score matching analysis, which provides an additional level of robustness to the study's findings.

The sampling was broken into eight stratum;

1. Impact population at the source (Nepal; Kanchanpur and Achham districts)
2. Migrant control population at the source (Nepal; Kanchanpur and Achham districts)
3. Impact population at the source (Bangladesh; Jessore and Satkira districts)
4. Migrant control population at the source (Bangladesh; Jessore and Satkira districts)
5. Bengali speaking Impact population at the destination (India; Delhi and Mumbai)
6. Bengali speaking migrant control population at the destination (India; Delhi and Mumbai)
7. Nepali speaking Impact population at the destination (India; Delhi and Mumbai)
8. Nepali speaking migrant control population at the destination (India; Delhi and Mumbai)

2.1 Sample Size Estimation(s)

The below equation was used to estimate the required sample size, at each stratum level, to allow for meaningful comparison longitudinally between the baseline and end-line; and at the cross-sectional level between an end-line control and impact population⁷:

$$n = D \left[(z_{\alpha} + z_{\beta})^2 * \frac{(P_1(1 - P_1) + P_2(1 - P_2))}{(P_2 - P_1)^2} \right]$$

Where:

n = required minimum sample size per survey round or comparison group

D = design effect for complex surveys (value = 1.2)

*P*₁ = the estimated level of an indicator measured as a proportion at the time of the first survey or for the control area

*P*₂ = the expected level of the indicator either at some future date or for the project area such that the quantity (*P*₂ - *P*₁) is the size of the magnitude of change it is desired to be able to detect

*Z*_α = the z-score corresponding to the degree of confidence with which it is desired to be able to conclude that an observed change of size (*P*₂ - *P*₁) would not have occurred by chance (statistical significance)

*Z*_β = the z-score corresponding to the degree of confidence with which it is desired to be certain of detecting a change of size (*P*₂ - *P*₁) if one actually occurred (statistical power).

The estimated level of the key indicator to be measured as a proportion at the end-line is .5 (*P*₁ = 0.5), which is the most conservative assumption. To be able to detect a change, increase or decrease, of 20 percent, *P*₂ is set to be 0.6. Using a confidence level of 95 percent (*Z*_α = 1.645) and a power level of 80 percent (*Z*_β = 0.840). A design effect of 1.2 is used, which was utilized during the baseline evaluation⁸. Using the sample size formula above, these parameter values result in a sample size of 363 respondents per strata. Allowing for a 20 percent non-response rate results in a sample of 436; rounded up to 440 per stratum. Using the eight strata listed above, a required sample size of 3,520 respondents was drawn. Table 4 contains the actual number of interviews completed in each stratum. Table 4 presents the actual number of interviews completed for the survey. In each of the eight end-line (2014) strata more than the minimum required sample size of 363 respondents was met.

Table 4: Completed interviews

	Stratum		
	BL (2011)	EL - CTRL (2014)	EL - IP (2014)
Source Country			
Nepal	550	466	448
Bangladesh	550	444	443
Destination Country			
India (NMP)	573	473	417
India (BSP)	472	411	426

⁷ Robert Magnani, *Sampling Guide*, FANTA, 1997.

⁸ The utilization of a design effect of 1.2 is a limitation of the sample design due to resource constraints.

2.2.1 Respondent Survey

The respondent survey (quantitative tool/questionnaire) was developed by TANGO International in close consultation with CARE EMPHASIS and ODI. The tool was developed using the key modules and questions from the baseline surveys used by The Nielson Company. The tools used during the baseline, while similar, were unique for each country. TANGO International unified these tools into a single tool that applied to both destination and source locations. In addition, modules and questions were added to capture project specific interventions and programming which would not have been captured at baseline. The survey contained eight modules, plus a respondent identification and interview result module which were completed by the trained enumerator:

Module A: Respondent Identification

Module B: Socio-Demographics

Module C: Sexual Behavior

Module D: Family planning

Module E: HIV Related Knowledge, Attitudes and Practices

Module F: Service Provision and Access

Module G: Stigma and Discrimination

Module H: Recreational Behavior

Module I: Gender Norms

Module J: Interview Result

The survey tool was translated into 3 languages from English; Hindi, Nepali, and Bengali. This was completed by the CARE EMPHASIS teams to ensure accurate technical translations. The end-line survey was then programmed into ODK (Open Data Kit) and administered by trained enumerators using a Nexus 7 tablet computer. The enumerators could select which language they preferred to use while administering the survey. The end-line respondent survey (quantitative tool) is located in Appendix B.

2.2.2 Response Rates

The identified respondent population for this study, migrants and the family members of migrants, are transitory in nature, and therefore when estimating the sample size a relative (to other surveys) high non-response rate was anticipated (20 percent).

Prior to the start of fieldwork CARE EMPHASIS India underwent a respondent identification exercise to estimate the likely non-response rate in preparation for fieldwork – this was to allow for further modification of the non-response rate if required. From the CARE EMPHASIS “First Meet Lists”, a list of persons whom ORW and PEs had worked with in the field, TANGO international provided a simple random sample of 100 names in both Mumbai and Delhi. CARE EMPHASIS ORWs and PEs were then asked to locate and identify these persons over the course of two weeks.

This exercise was completed using a SRS – requiring significant more person hours than if a two stage cluster sample was drawn. Nonetheless the results highlighted the difficulty in identifying respondents. Table 5 contains the results from the pre-fieldwork respondent identification exercise, where CARE

EMPHASIS staff members were able to identify 50 percent of individuals from a SRS first meet list on the first attempt.

Table 5: Respondent identification exercise response rates

	Response Rate	Number of Observations
Destination Country		
Mumbai India (NMP)	56.0	50
Mumbai India (BSP)	22.0	50
Delhi India (NMP)	48.0	50
Delhi India (BSP)	48.0	50

Based upon the findings from the Respondent identification exercise, TANGO International increased the non-response rate from 20 percent to between 35 percent and 40 percent in each country. This was only done for impact populations.⁹ A clustered two-stage sample and a focus during training on respondent identification, including repeat visits to the same location, resulted in actual non-response rates (see Table 6) lower than those observed during the identification exercise.

Table 6: End-line survey estimated non-response rate

	Stratum	
	EL - IP (2014)	EL - CTRL (2014)
Source Country		
Nepal	16.8	0.0
Bangladesh	11.8	0.2
Destination Country		
India (NMP)	14.0	5.2
India (BSP)	25.3	3.2

2.2 Sampling Procedures

Two distinct sampling procedures were utilized during the end-line survey; 1) Two stage cluster sampling was utilized for each impact population stratum; 2) Random walk exercise for each control population stratum.

For the impact population, the first stage sampling of clusters was based on available CARE impact population lists¹⁰. Using probability proportional to size sampling (PPS), clusters were sampled in each of the 4 impact population stratum. The number of clusters varied per country, based on the number of enumerator teams, and the number of members in each enumerator team¹¹. From the selected clusters, a simple random sampling (SRS) of the required number of respondents was drawn. To further minimize the non-response rate, any individuals listed in 2012 or before were removed from the sample frame to avoid the time and costs associated with locating these transient individuals. This sampling

⁹ Control respondents were identified using a random walk strategy which results in a significantly lower non-response rate

¹⁰ These were “First Contact Forms” (FCF Lists) or “First Meet” lists.

¹¹ The data in each stratum are not aggregated for any purpose in this research; therefore the number of clusters varying does not require a weighted sample.

method results in a self-weighted sample at each stratum level.¹² Sampling transient populations from lists can result in larger than normal non-response rates, which can introduce a bias into the findings. The bias, if present, is likely positive – respondents that are located are likely more known to outreach works, and have thus had greater interaction to the program than respondents who cannot be located by program outreach workers.

CARE EMPHASIS provided a list of locations which met pre-determined criteria for potential end-line control locations. The required criteria ensured that the control populations of interest were present (i.e. Nepali speaking migrant households), and the location had similar socio-economic characteristics as the relevant CARE EMPHASIS impact populations. CARE EMPHASIS staff then provided TANGO International with estimated populations of potential respondents in each purposefully selected potential control location. From this sampling frame, a first stage sample of clusters (equal to the relevant impact population sample) was completed using probability to proportional sampling (PPS) based on the estimated number of respondents in each location. This was completed for each of the 4 control population stratum.

To identify specific respondents in the second stage of the selected control locations, a rigorous random walk strategy using multiple segmentation techniques was utilized with appropriate screening questions to identify target respondents¹³. Random walks introduce an inherent level of bias into any sample, as they often include households near large infrastructure corridors, and omit more remote households.¹⁴ The random walk strategy employed for this survey was extremely robust and included multiple criteria to ensure a diverse and random area of the selected locations was visited.

In source countries, it is theoretically possible that the same impact population household could be randomly selected more than once¹⁵. This case would occur if the household had two members that were listed on the CARE EMPHASIS “First Meet” or FCF form. The data are not available to identify individuals who share a single household and to obtain this data would be cost intensive. CARE EMPHASIS program staff stated that the likelihood of a single household having two names listed in any FCF or first meet list was extremely unlikely. This limitation, if more prevalent than estimated could cause an upward bias on the data (HHs with multiple 'contacted' members will be more informed). Enumerators were informed that in the event two individuals from the same household were selected for response, only one person from the household would be interviewed. A clear protocol for this situation was laid out for enumerators. *This situation did not occur during fieldwork.*

¹² Robert Magnani, *Sampling Guide*, FANTA, 1997.

¹³ For further detail on the random walk strategy see the Enumerator and Supervisor manuals in annex E and F.

¹⁴ Robert Magnani, *Sampling Guide*, FANTA, 1997.

¹⁵ Respondent names were randomly selected at source countries per the sampling methodology, enumerators were instructed that any person in the household to obtain EMPHASIS programming was eligible to respond to the interview, as most FCF or First Meet lists only contained the migrant workers name, where his/her spouse was the primary recipient of EMPHASIS services.

2.3 Enumerator Training

There were three enumerator trainings held, one in each of Delhi, India; Kanchanpur, Nepal; and Jessore, Bangladesh. Each enumerator training was a five day training, focused on the quantitative end-line tool, sampling protocol, field logistics, data quality and data management. Table 7 below provides the specific dates of trainings in each country.

Table 7: Enumerator training dates

	Training Dates
Source Country	
Nepal	January 30 th – February 3 rd , 2014
Bangladesh	February 9 th – February 13 th , 2014
Destination Country	
India	January 21 st – January 25 th , 2014

CARE EMPHASIS staff provided an in-depth review of the project for enumerators at the start of each training session. On day four of training (prior to field-test), ORWs and PEs attended the training to provide enumerators the opportunity to ask further questions regarding the impact populations and surrounding areas. ORWs and PEs were also familiarized with the tool so they better understood the questions which respondents would be exposed to.

Table 8 below provides a breakdown on the number of enumerators in each country. The ratio of male to female enumerators was chosen based on the ratio of the sex of the impact population persons listed on the first meet and first contact lists provided by the CARE EMPHASIS team. The enumerators were instructed to only interview selected respondents who were of the same sex¹⁶. For further information on training please see the complete training agenda in appendix D, the enumerator manual in appendix E, and the supervisor manual in appendix F.

Table 8: Number of end-line survey enumerators (by gender)

	Male	Female	Total
Source Country			
Nepal	5	4	9
Bangladesh	3	4	7
Destination Country			
India (Delhi)	3	2	5
India (Mumbai)	5	2	7

2.4 Survey Implementation and Data Quality Management

Data collection began immediately following the enumerator trainings. India had a sample size twice the size of Nepal or Bangladesh (separate stratum for BSP and NMP), therefore training and fieldwork commenced in India prior to Nepal or Bangladesh. All fieldwork activities were completed by March 18th, as shown in Table 9 below.

¹⁶ The exception was in Nepal, it was determined by CARE EMPHASIS partners that male enumerators could interview married female respondents.

Table 9: Country fieldwork dates

	Fieldwork Dates
Source Country	
Nepal	February 3 rd - March 15 th , 2014
Bangladesh	February 13 th - March 15 th , 2014
Destination Country	
India	January 25 th - March 18 th , 2014

Enumerator teams were instructed to upload data via wi-fi (from the tablet devices) as regularly as connectivity allowed. On average, this was about two to three times per week. In some instances, such as remote areas of Bangladesh and Nepal, wi-fi was not available as regularly, so teams submitted data via regular email (USB modems). Within 24 hours of submitting data, the country coordinator and team supervisors would receive feedback from TANGO international and TSCPL on progress of submitted data and overall data quality. This allowed team supervisors to monitor specific enumerator data quality, enumerator skills and to ensure data was being collected as per the sampling protocol outlined in the enumerator and supervisor manuals.

2.5 Data Analysis Methods

The progress of the key project indicators can be found in Table 1 (Nepali migrant populations) and Table 2 (Bengali speaking population). These tables measure indicator progress from baseline to end-line, and across the end-line impact population and end-line control populations. The progress is measured using three methods: 1) t-tests measuring the statistical difference of means between the relevant populations, 2) propensity score matching to measuring the average treatment effect (ATE) of EMPHASIS programming, and 3) propensity score matching to measure the average treatment effect on the treated (ATT) of EMPHASIS programming¹⁷.

Propensity score matching (PSM) methods when applied appropriately, provides robust impact estimates of policies when assignment to treatment is not random (Caliendo & Kopinig, 2005). The basic idea is to identify a large group of non-participants, individuals who are similar to the participants in a range of socio-demographic characteristics, in a quasi-experimental setting (Thoemmes, 2012). Then the differences in outcomes between the treatment and control groups can be attributed to the program. The PSM estimators control for participant selection bias resulting from observed individual characteristics which may influence, or dissuade, individuals from participating in EMPHASIS programming. The resulting estimators can be used to estimate the *impact* of the project (Dehejia & Wahba, 2002).

The baseline data collection activity faced difficulty sampling from a list of randomly selected individuals, and thus achieved the majority of its sample using a snowball sampling technique (The Nielsen Company, 2011). This limitation in the baseline sampling frame likely introduced a level of selection bias that cannot be controlled for or corrected by propensity score matching. Therefore the comparison between the end-line impact population and the end-line control is the preferred approach throughout the report. In an effort to limit report length and the number of overly complicated tables, the majority

¹⁷ A theoretical overview of the propensity score matching methods used can be found in appendix H.

of the tables presented compare the end-line impact population with the end-line control population only¹⁸. There are additional supplementary tables aimed to inform CARE EMPHASIS and its partner organizations on the current status of its impact populations compared to control populations. The additional tables, while not providing direct support to this report, have been provided for CARE EMPHASIS's benefit in the Appendix documents.

The analysis of the survey data was conducted using SPSS version 20.0, in conjunction with various python and R plug-in applications used for data cleaning and propensity score matching and regression analysis. The original and final data, along with the associated syntax is provided for transparency.

2.6 Survey Limitations

Conducting a quantitative survey using an impact population list of a transient population (migrant workers) presents difficulties which needed to be addressed and overcome in the field. Applied methods and existent constraints are noted and were addressed as best given resource and time constraints. Therefore some limitations are present in this study and are listed below.

1. BSP populations in India, specifically individuals who have illegally migrated from Bangladesh, are difficult to reach and identify due to their legal status. Because of this, the term “Bangladeshi” was never used to identify respondents. Respondents were only identified as Bengali speaking. These respondents were asked questions regarding their “home place,” with the option to “refuse” or not respond to any single question.
2. The survey allowed for a relatively high non-response rate (however in practice the rate was much lower than expected), and thus the sample size was larger than required for statistical inference. There is an inherent level of bias associated with high non-response rates, however these biases are less (and different) than those associated with the alternative sampling option of respondent driven sampling. The non-response rate (see Table 6) was lower than expected, a positive correlation between individuals who were located (respondents known to PEs and ORWs) and outcomes of interested. Therefore the results of key indicators -- mean difference; propensity score matched mean difference; and regression treatment effect – may contain an upward bias. The robust and consistent results across the four strata and two treatments (baseline and end-line control) suggest that this bias is random and not systematically correlated.
3. One purposefully selected control location in Mumbai contained 3 clusters. This location (a slum) had been demolished by local authorities, and thus the three clusters were randomly redrawn from the existing Mumbai sample frame for control locations. All locations were included (an equal probability of being selected) and if a location was drawn twice, the number of clusters for that location increased by 1.
4. Upon completion of the fieldwork, it was discovered that there had been a miscommunication with the Bangladesh field teams. While they had completed the required number of surveys, they had not completed all clusters in the sampling frame (not visiting 5 of the original 18). The

¹⁸ In addition the level of effort required to fully synthesis all data from the baseline to the end-line is substantial (See limitation 5 section 2.5 for a more clear explanation).

teams were provided sampling lists large enough to allow for a 40 percent non-response rate due to the experience of teams during the field-test. In practice, the non-response rate in Bangladesh for IP was less than 12 percent. When the teams reached the required sample size they terminated fieldwork, without completing the remaining 5 clusters. This violates the equal probability rule of a two-stage cluster design, and therefore appropriate weights have been applied to Bangladesh IP data to correct this error *post-hoc*. For more details on this weighting scheme please see appendix G.

5. The baseline data provided to TANGO International by CARE EMPHASIS, and the associated quantitative tools used to collect the data, were not aligned across the three countries in the study. The baseline survey in each country was similar but not identical. Each country's database had different variable names, codes, and structure. The *paper* tools provided with each database did not align with the database (for example the Q101 in one database, was actually Q104 on the associated paper survey). Similarly variable codes on the paper survey did not always align with the codes found in the associated database. In rare cases informed assumptions were required; these have been noted clearly in the SPSS syntax files used for data analysis.
6. Due to limitations in the sampling frames the baseline data collection activity completed in 2011 faced difficulty sampling from a list of randomly selected individuals, and thus achieved the majority of its sample using a snowball sampling technique (The Nielsen Company, 2011). This likely introduced a level of selection bias that cannot be controlled for, or corrected by propensity score matching. Therefore the comparison between the end-line impact population and the end-line control is considered here more appropriate.

3. Analysis of Findings

Table 10 highlights that the type of respondent varies considerably between the source countries, Nepal and Bangladesh, and the destination country, India. Surveys conducted within India resulted in primarily current migrant respondents, whereas surveys conducted within the source countries varied more, and included return migrants, circular migrants, and the family members of migrants¹⁹. This is also illustrative, and closely correlated to the EMPHASIS impact population in each country. Bangladesh had the largest number of “Returnee migrants,” interviewed. A large number of circular migrants were also interviewed in Bangladesh. In contrast, the overwhelming majority of respondents in Nepal were either the spouse of a migrant or a family member of a migrant.

Within India, CARE EMPHASIS is specifically working with two distinct impact populations; Nepali migrant population (NMP) and Bengali speaking population (BSP). In the case of the Bengali speaking impact population, their home place of origin is a sensitive issue (there is no formal/legal migration agreement between Bangladesh and India such as the one in place between Nepal and India²⁰) and therefore BSP respondents in India were identified as Bengali speakers, who had migrated to Delhi or Mumbai. Whether respondents migrated from Bangladesh was not asked. In Bangladesh a large proportion of respondents were return or circular migrants. The majority, 58.4 percent, of return migrant respondents were female, and 33.8 percent of circular Bangladesh respondents were female.

Table 10: Respondent migrant Status at end-line (percent respondents per category)

	End-line Survey Location			
	Nepal	Bangladesh	India (NMP)	India (BSP)
Current migrant	6.5	10.8	98.0	98.0
Male (of current migrants)	15.3	7.1	66.2	62.1
Female (of current migrants)	84.7	92.9	33.8	37.9
Return migrant	11.5	39.9	0.0	0.0
Male (of return migrants)	81.9	41.6	0.0	0.0
Female (of return migrants)	18.1	58.4	0.0	0.0
Circular migrant	13.2	41.1	1.5	1.7
Male (of circular migrants)	32.2	66.2	7.7	0.0
Female (of circular migrants)	67.8	33.8	92.3	100.0
Spouse of migrant	46.9	3.6	0.2	0.1
Male (of spouse of migrants)	0.2	0.0	50.0	0.0
Female (of spouse of migrants)	99.8	100.0	50.0	100.0
Other family member of migrant	21.8	4.5	0.2	0.1
Male (of other family members)	30.7	11.4	100.0	100.0
Female (of other family members)	69.3	88.6	0.0	0.0
<i>n</i>	914	887	890	837

¹⁹ *Circular migrant* is defined as a person who returns home 4 times a year, or once a year for 3 months at a time or longer.

Return migrant is defined as a person who has permanently returned home and does not intend to return to India for work.

Current migrant is defined as a current migrant who does not return home regularly (as defined by circular migrant).

²⁰ 1950 Treaty between India and Nepal

3.1 Household/Respondent Characteristics

3.1.1 Demographics

The end-line survey resulted in similar proportions of female respondents across strata within Nepal and within Bangladesh as the baseline. The majority of respondents in both source countries were female; however in Bangladesh only marginally so (Table 11). This is likely due to more return and circular migrants, traditionally males, being available for response in Bangladesh than in Nepal (Table 10).

Table 11: Percent of female respondents – source country

	Stratum			Number of observations		
	BL (2011)	EL - CTRL (2014)	EL - IP (2014)	BL	EL (IP)	EL (CTRL)
Source Country						
Nepal	72.9	79.4	77.7	550	466	448
Bangladesh	58.9	57.7	51.7	550	444	443
Destination Country						
India (NMP)	41.7	21.1	50.1	573	473	417
India (BSP)	64.4	41.1	37.1	472	411	426

In the source countries, there were more single respondents at the time of the baseline activity than during the final (either control or IP) (Table 12). In contrast to the source countries, the BSP population in India has a lower percentage of female respondents at the end-line data collection activity. The difference between the sex of respondents at baseline and end-line is large; however this is likely due to the respondent driven snowball sampling strategy utilized during the baseline activity. The greater number of female respondents in three of the four baseline strata is largely a result of female social networks (respondent driven sampling uses respondent networks), coupled with women being traditionally available during the baseline interview times.

Table 12: Marital Status – Destination and source countries²¹

	% Single Respondents			% Married Respondents			Number of observations		
	BL (2011)	EL - CTRL (2014)	EL - IP (2014)	BL (2011)	EL - CTRL (2014)	EL - IP (2014)	BL	EL (IP)	EL (CTRL)
Source Country									
Nepal	16.7	9.6	8.6	83.3	89.7	88.2	550	448	466
Bangladesh	52.2	16.3	16.7	35.9	81.9	81.7	550	443	444
Destination Country									
India (NMP)	30.2	19.9	15.4	66.7	84.6	76.0	573	417	473
India (BSP)	15.9	21.6	16.5	78.4	80.8	75.6	472	426	411

In three of the strata (NMP, Nepal and Bangladesh) there is a decline in the percentage of single respondents from baseline to end-line; however again, this could be largely a result of the baseline sampling strategy. Importantly, the proportion of single respondents and married respondents across the end-line impact and control stratum are closely aligned and homogeneous, lending further evidence that the control locations have similar socio-demographic characteristics as the EMPHASIS end-line

²¹ Not included in the table is divorced or separated respondents

populations. Unsurprisingly, respondents in the destination country who are married are largely not living with their spouses (see Table 13).

Table 13: Percentage of married respondents not living with spouse

	Stratum		Number of observations	
	EL - CTRL (2014)	EL - IP (2014)	EL (IP)	EL (CTRL)
Source Country				
Nepal	45.5	61.6	466	448
Bangladesh	22.2	12.0	444	443
Destination Country				
India (NMP)	83.7	76.0	473	417
India (BSP)	79.1	74.6	411	426

When comparing the levels of education between end-line impact and control populations, there is small, and rarely statistically significant, difference in the levels of education between the purposefully selected control locations and the EMPHASIS impact population's locations. The only significant differences occurring within the BSP populations, at source and at destination; in both cases the EMPHASIS IP population has a higher level of education (Table 14)²².

Table 14: Education – destination and source countries

	Stratum		Number of observations	
	EL - CTRL (2014)	EL - IP (2014)	EL (IP)	EL (CTRL)
NMP				
Nepal				
No Education	16.5	16.5	448	466
Middle School or less	42.6	42.7	448	466
India (NMP)				
No Education	18.0	19.0	443	444
Middle School or less	64.5	64.3	443	444
BSP				
Bangladesh				
No Education	15.8	10.2***	417	413
Middle School or less	69.8	69.3	417	413
India (BSP)				
No Education	23.0	25.3	426	411
Middle School or less	54.2	66.9***	426	411

Statistically different at the 10% (), 5%(**) or 1%(***) levels (unmatched t-test)*

As with marital status, education status of respondents is relatively equal between the EMPHASIS Impact populations and their associated control populations (Table 14). This, coupled with the marriage information in Table 12, lends further quantitative evidence towards the effective purposeful selection of control respondent locations.

²² The baseline survey specifically asked information on the level of education of the mobile person, and not the respondent, therefore education data are not comparable longitudinally.

3.1.2 Income and Remittances

CARE EMPHASIS is not specifically aimed at increasing the impact population's income. A relatively homogeneous level of Income between the end-line control and impact populations further validates the selection of control locations by the EMPHASIS team. Table 15 presents the various levels of respondent's most recent monthly income in USD, there is no statistical difference between the end-line impact population and the end-line control populations.

Table 15: Median respondent household monthly income (USD, most recent month)

	Stratum		Number of observations	
	EL - CTRL (2014)	EL - IP (2014)	EL (IP)	EL (CTRL)As
Source Country				
Nepal	\$50.24	\$50.24	328	363
Bangladesh	\$90.12	\$90.12	348	396
Destination Country				
India (NMP)	\$144.69	\$112.54	209	405
India (BSP)	\$160.77	\$160.77	284	290

Statistically different at the 10% (*), 5%(**) or 1%(***) levels (unmatched t-test)

A greater percentage of EMPHASIS Nepali migrant population individuals remit money to family and friends in Nepal than those in control locations (Table 16). A greater proportion of EMPHASIS Bengali speaking respondents also remit money to their home place, but this difference is not statistically significant, and small in relative size. Control and impact populations tend to remit money to their home places around 5 times a year, regardless of country of origin or if they have received EMPHASIS interventions (Table 16). The primary modes to send remittances were via a bank, via relatives or to carry by oneself, with EMPHASIS populations relying less on banks, and more on relatives.

Table 16: Remittances - destination country

	India NMP		India BSP	
	EL - CTRL (2014)	EL - IP (2014)	EL - CTRL (2014)	EL - IP (2014)
Percentage of respondents to remit money/in-kind to home place in last 12 months	32.6	63.2***	27.7	29.4
<i>n</i>	417	473	426	411
Statistically different at the 10% (*), 5%(**) or 1%(***) levels (unmatched t-test)				
Number of times to remit money home in the last 12 months	4.7	4.3	5.0	5.1
<i>Mode of remittance:</i>				
Via Bank	74.8	61.9	84.6	69.0
Via Relatives	39.0	47.1	34.6	46.9
Carry myself	48.0	22.0	54.6	24.8
Via Friends	13.0	15.5	11.8	13.3
Via Post	2.4	1.0	1.8	0.9
Via Employer	0.0	0.7	0.0	0.0
Via Broker	0.0	0.0	0.0	2.7
<i>n</i>	123	291	110	113

Destination country populations cite receiving remitted money and/or in-kind much more regularly than migrant populations in India report sending money (Table 16 and Error). This is in-line with the findings in the baseline reports (The Nielsen Company, 2011). More households at the source country report receiving remitted money, however household in source countries report receiving remitted money, on average, about the same number of times as migrants in India report sending money, five times (Table 16 and Table 17).

Table 17: Monthly Remittances - source country

	Nepal		Bangladesh	
	EL - CTRL (2014)	EL - IP (2014)	EL - CTRL (2014)	EL - IP (2014)
Percentage of respondents <i>receive</i> remitted money/in-kind from India in last 12 months	94.6	88.4	10.4	23.1
<i>n</i>	448	466	443	444
Mean number of times to receive remitted money from India in the last 12 months	4.3	4.0	3.7	6.6
<i>n</i>	392	392	32	78
<i>Mode of remittance:</i>				
Carry myself or Migrant carries ²³	48.2	75.7	18.2	11.5
Via Employer	4.1	0.5	0.0	0.0
Via Friends	44.8	46.3	6.1	12.9
Via Relatives	32.8	24.3	18.2	23.9
Via Bank	69.1	48.5	9.1	3.5
Via Post	0.0	0.2	0.0	0.5
Via Broker	0.0	0.0	60.6	57.9
<i>n</i>	423	411	33	78

3.1.3 Dwelling Characteristics

Across Nepali migrant populations, EMPHASIS and control locations have a similar number of persons shared a room for sleeping; 3-4 persons were the most number of people to sleep in a room together – regardless of country (Table 18). The number of people in EMPHASIS impact population households is slightly, but significantly, larger than control location households. Similarly, the average number of rooms in control households is similar to that of the impact population households. In all strata, the most cited type of household structure was Kutcha, with the exception of NMP impact population in India, which primarily stated they live in a Pucca structure.²⁴

Table 18: Number of persons and rooms per household – source country

	Nepal		India NMP	
	EL - Ctrl	EL - IP	EL - Ctrl	EL - IP
Mean number of persons In household	8.0	8.2***	2.4	2.8***
Mean number of rooms in household	3.0	3.0***	1.2	1.2
Most number of persons to sleep in room	3.2	3.0	3.1	3.4***
Primary type of household	Kutcha (71%)	Kutcha (64%)	Kutcha (57%)	Pucca (68%)

²³ At source country there was confusion among enumerators on mode of remittance; whether it was coded for “Migrant Caries” or “Spouse of Migrant” Carries; thus this can only be interpreted as both.

²⁴ A kutcha home is made up of mud/hay, often with tin-roofs. A pucca home is made primarily of brick/block walls with tin-roofs or tiles.

<i>n</i>	448	466	443	444
Statistically different than EL - CTRL at the 10% (*), 5%(**) or 1%(***) levels (unmatched t-test)				

Bengali speaking populations vary little from the Nepali migrant populations. Households in Bangladesh have fewer persons sharing a room than BSP households in India (Table 19). Interestingly BSP households in India report fewer persons in the household, though the most number of persons to share a room is reportedly higher. The primary type of structure of BSP is Kutcha, with a semi-pucca being cited most by impact population respondents in Bangladesh (Table 19).

Table 19: Table X: Number of persons and rooms per household – destination country

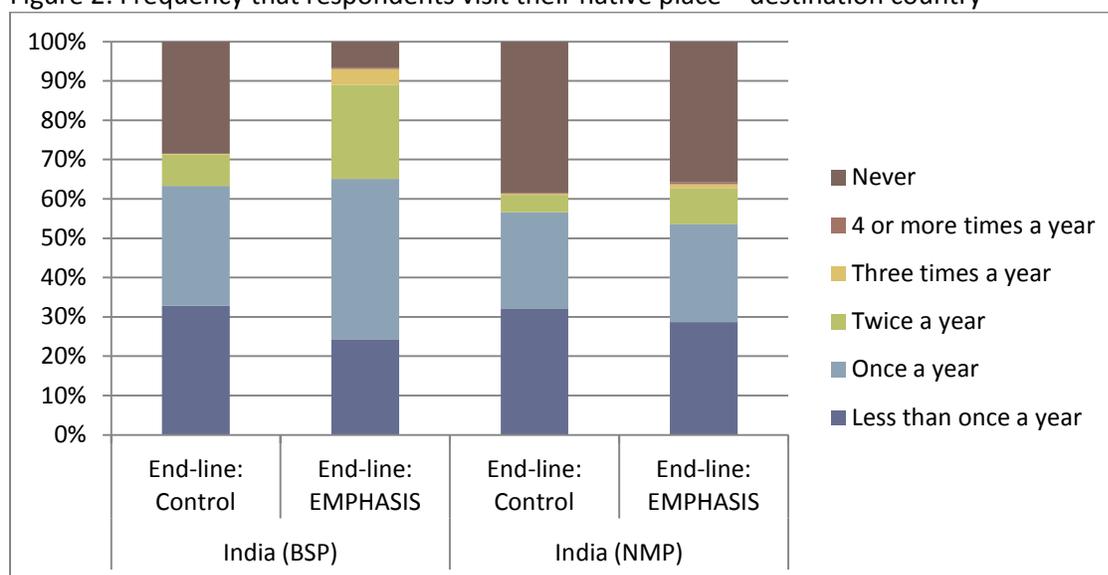
	Bangladesh		India BSP	
	EL - Ctrl	EL - IP	EL - Ctrl	EL - IP
Number of persons In household	4.6	4.5	2.9	3.6
Total number of rooms in household	1.8	1.9	1.2	1.3***
Most number of persons to sleep in room	2.6	2.5	4.6	4.3
Primary type of household	Kutcha (55%)	Semi Pucca (46%)	Kutcha (54%)	Kutcha (63%)
<i>n</i>	417	474	426	411

Statistically different than EL - CTRL at the 10% (*), 5%(**) or 1%(***) levels (unmatched t-test)

3.1.4 Migration/Immigration

Fewer BSP and NMP EMPHASIS IP respondents stated they “never” went to their home place than the respective control respondents. Equally, more BSP and NMP EMPHASIS impact population respondents cited visiting their home place once or more a year than respondents from the control locations (Figure 2). This finding suggests a particular difference between control and treatment groups, with control being relatively less transient than the impact population communities. This is particularly true for BSP migrant populations.

Figure 2: Frequency that respondents visit their native place – destination country



3.1.5 Worker Rights and Entitlements

CARE EMPHASIS focuses on worker rights and entitlements of Nepali migrant population. Due to their legal status in India, it is not possible for EMPHASIS to focus programming to improve worker rights and entitlements of Bengali speaking population. Nonetheless, the analysis of BSP populations compared to baseline and control findings has interesting findings. The CARE EMPHASIS project is likely to have had a positive indirect impact on the rights and entitlements of the BSP population. The results from the propensity score matching estimators indicate that CARE EMPHASIS has had a positive and statistically significant impact on workers' rights and entitlements. This was accomplished through interventions with BSP IPs facilitated via solidarity groups and did not identify themselves as Bangladeshi or BSP, but as micro-level workers groups.²⁵ Table 20, Table 21, and Table 22 each present different facets of workers' rights and entitlements: i) accident compensation from their employer; ii) health care benefits from their employer, and iii) same type of overtime pay as Indian counterparts.

Table 20, Table 21, and Table 22 show that after controlling for selection bias and confounding factors, EMPHASIS has a positive and significant impact among the NMP IP population when comparing to the end-line control population. Agreement between the control and baseline propensity score treatment effects is a further robustness check, which is present in Table 20, but not in Table 21 or Table 22. However, as stated in section 2.6, the most appropriate comparison group is the end-line control group.

Table 20: Percentage of migrants currently in India who are provided accident compensation from their employer

	Point Estimates			Regression Treatment Effect (ATT)		Number of observations		
	BL (2011)	EL - CTRL (2014)	EL - IP (2014)	BL - EL Treatment	CTRL - EL Treatment	BL	EL (CTRL)	EL (IP)
Destination Country								
India (NMP)	4.3	1.2	8.7	1.7	7.9***	530	417	473
Female Respondent	1.0	0.0	5.0	10.5***	0.2	196	209	100
Male Respondent	6.3	2.4	9.7	0.6	8.4***	334	208	373
India (BSP)	0.3	1.2	10.0	9.8***	9.1***	324	426	411
Female Respondent	0.0	0.0	0.6	N/A	0.7	161	158	169
Male Respondent	0.6	1.9	16.5	12.3***	13.5***	163	268	242

Statistically significant at the 10% (*) , 5%(**) or 1%(***) levels

Results in Table 20, Table 21, and Table 22 suggest that CARE EMPHASIS, while not targeting the BSP impact population specifically, is having a positive effect on their workers' rights and entitlements. Table 20 presents a clear difference between the end-line BSP impact population and both baseline and control populations when looking at the access of employer accident compensation. This effect is significant and large, specifically for EL for male individuals.

²⁵ CARE EMPHASIS staff

Table 21: Percentage of migrants currently in India who are provided health care benefits from their employer

	Point Estimates			Regression Treatment Effect (ATT)		Number of observations		
	BL (2011)	EL - CTRL (2014)	EL - IP (2014)	BL - EL Treatment	CTRL - EL Treatment	BL	EL (CTRL)	EL (IP)
Destination Country								
India (NMP)	6.8	0.7	5.9	-4.1**	5.5***	530	417	473
Female Respondent	3.1	0.0	4.0	5.7	0.3	196	209	100
Male Respondent	9.0	1.4	6.4	-6.9***	5.8***	334	208	373
India (BSP)	0.3	0.9	1.2	1.8	1.0	324	426	411
Female Respondent	0.0	0.0	0.0	N/A	0.7	161	158	169
Male Respondent	0.6	1.5	2.1	1.9	1.6	163	268	242

Statistically significant at the 10% (*) , 5%(**) or 1%(***) levels

In Table 21 and Table 22 there is a positive effect of CARE EMPHASIS on BSP impact population compared to BSP control, however the effect is not large in magnitude or statistically significant. In contrast, the effect for the NMP IP is both large in magnitude and statistically significant when comparing the end-line control population; further demonstrating the effect of CARE EMPHASIS programing on worker's rights and entitlements. This result is largely driven by the effect of CARE EMPHASIS on male NMP impact population.

Table 22: Percentage of migrants currently in India who receive same type of overtime pay as their Indian counterparts

	Point Estimates			Regression Treatment Effect (ATT)		Number of observations		
	BL (2011)	EL - CTRL (2014)	EL - IP (2014)	BL - EL Treatment	CTRL - EL Treatment	BL	EL (CTRL)	EL (IP)
Destination Country								
India (NSB)	65.7	23.7	50.1	-22.7***	10.0***	530	417	473
Female Respondent	43.9	5.7	22.0	2.9	1.3	196	209	100
Male Respondent	78.4	41.8	57.6	-24.7***	8.7**	334	208	373
India (BSP)	66.0	21.8	27.5	-35.2***	4.9	324	426	411
Female Respondent	78.3	6.3	10.7	-55.2***	0.4	161	158	169
Male Respondent	54.0	31.0	39.3	-22.7***	7.9	163	268	242

Statistically significant at the 10% (*) , 5%(**) or 1%(***) levels

3.2 Engagement with EMPHASIS

Table 23 presents the percentage of impact population households to cite that they have received some type of direct service by EMPHASIS. The group with the lowest is in Nepal, and could be largely driven by the number of HIV and AIDS service providers in Nepal – with households unable to distinguish between various providers²⁶. Across the other three groups, roughly nine out of 10 households state they have received direct services from CARE EMPHASIS (Table 23).

²⁶ Information provided by EMPHASIS Program staff

Table 23: Percent of impact population households to state receiving direct services from EMPHASIS

Source Country	EL - IP (2014)	Number of Observations
Nepal	73.6	466
Bangladesh	88.7	444
India (NMP)	91.5	473
India (BSP)	92.0	411

Respondents selected from CARE EMPHASIS FCF or first meet lists had previously received some type of engagement with EMPHASIS, however this did not ensure or guarantee that the respondent would remember the engagement, or identify EMPHASIS (or its partners) as being part of the engagement. In both the NMP and BSP populations, over 91 percent of IP respondents identified EMPHASIS or its partner organizations as providing outreach, peer-education or referral to them or their household (Table 23).

3.2.1 Outreach, Peer Education, and Referral(s)

In Nepal, the level of engagement with EMPHASIS is distributed across a variety of modes including outreach, STI referral, VCT referral and other referral services (Table 24). A similar number of respondents state that they have received outreach and peer education as STI referrals. In contrast, the programming in Bangladesh is more focused on outreach and peer education, with over 90 percent of respondents citing EMPHASIS peer education (Table 24). VCT and STI referrals follow outreach and peer education, with a combined 30 percent of IP respondents citing these as EMPHASIS services.

Table 24: Percentage of impact population to receive specific EMPHASIS services - source country (multiple response)

	Impact Population	
	Nepal	Bangladesh
Outreach/peer education	50.4	91.8
STI referral	42.4	10.4
VCT/ICTC referral	16.0	19.3
Other Referral Services	10.4	2.3
Member of self-help group	2.4	2.6
DIC/CRC/Mobile DIC	1.6	0.0
Member of CBO/CSG	5.2	0.0
Received support at transit	4.0	5.9
Received ART referral	19.2	0.1
Other	1.2	2.9
n	250	314

Peer education and outreach was the most cited engagement by NMP and BSP IP respondents. More NMP IP respondents cited outreach/PE than BSP respondents. Conversely, for other services, BSP IP respondents cited more referral services than NMP IP respondents (Table 25).

Table 25: Percentage of impact population to receive specific EMPHASIS services - destination country (multiple response)

	Impact Population	
	India NMP	India BSP
Outreach/peer education	87.4	83.2
STI referral	13.8	28.3
VCT/ICTC referral	29.4	44.3
Other Referral Services	15.6	27.7
Member of self-help group	3.8	12.5
DIC/CRC/Mobile DIC	12.1	4.6
Member of CBO/CSG	2.5	1.1
Received support (during harassment)at transit	0.5	4.1
Received information at transit	11.1	0.3
Other	1.0	0.5
n	398	368

The percent of the NMP and BSP impact population citing access to referral is higher than the recorded referrals by the project, which is around 6 percent across the entire EMPHASIS project (all three countries)²⁷. In contrast to the source countries, more BSP respondents cite receiving a referral than NMP respondents. In Bangladesh referrals were much lower than those in Nepal (Table 24).

3.2.2 Savings

In source countries, EMPHASIS has been working to improve household access to savings accounts. Table 26 provides evidence of the success of these efforts, with 16 percent more households having access to savings accounts in Nepal and 21 percent more households having access to savings accounts in Bangladesh. Both of these cases are large in magnitude and statistically significant.

Table 26: Savings - source country

	Nepal		Bangladesh	
	EL - CTRL (2014)	EL - IP (2014)	EL - CTRL (2014)	EL - IP (2014)
Percentage of respondents to have access to savings account	50.0	66.5***	29.6	50.7***
n	435	420	438	311
Statistically different than EL - CTRL at the 10% (*), 5%(**) or 1% (***) levels (unmatched t-test)				
<i>Primary Decision making over HH savings:</i>				
Migrant AND spouse of migrant	54.0	26.8	13.0	15.7
Spouse of migrant	3.6	22.3	6.9	16.9
Household jointly	24.6	22.3	16.8	13.3
Other Male Household Members	12.5	11.3	10.7	18.1
Other Female Household Members	2.7	10.0	3.8	1.8
Migrant Only	2.2	6.5	48.9	34.3
n	224	310	131	227

In Nepal, over fifty percent of control households state that the migrant is the primary decision maker around use of savings. In contrast, the EMPHASIS IP is more diverse. In the Nepal IP the migrant is the most stated, however only 1 in 4 households states this, with 22 percent of households stating the migrants spouse has control over savings and another 22 percent saying that the household jointly

²⁷ Project document s citing individuals reached and total people referred; not disaggregated by country.

decides how savings will be used (Table 26). Bangladesh has less of a discernable trend in decision making around use of household savings.

3.2.3 Community Support Group Assistance

In Nepal and Bangladesh, the presence of EMPHASIS lead community support groups was common in EMPHASIS IP communities. In Nepal nearly 75 percent of IP respondents cited knowledge of a local EMPHASIS community support group, while in Bangladesh this figure was over 40 percent (Table 27). Of all respondents, regardless of country, who knew of a community support group – 90 percent stated they had received some type of assistance from the support group (Table 27).

Table 27: Percent of impact population to have a local community support group and receive assistance from the support group – source country

	Impact Population	
	Nepal	Bangladesh
Local EMPHASIS Community Support Group	74.7	41.9
<i>n</i>	466	443
Received Assistance From Support Group (if CSG present)	93.4	94.1
<i>n</i>	348	191

3.3 Sexual Behavior

3.3.1 General Sexual Behavior

Table 28 highlights the differences in the sexual activity of baseline respondents and end-line control respondents compared to EMPHASIS IP. More respondents at baseline reported being sexually active than either the IP or control population at end-line. Between 80 and 90 percent of respondents have had sexual intercourse, regardless of stratum or country (Table 28). A very low percentage of respondents cite having sex with a non-regular partner in the last 12 months; therefore there is no data to provide estimations on non-regular sex partners, including commercial sex workers. This low response may be a result of the sensitive nature of the question; particularly when speaking with a stranger (the enumerator).

Table 28: Sexual behavior and practices

	Stratum		
	BL (2011)	EL - CTRL (2014)	EL - IP (2014)
India (NMP)			
Sexual Intercourse	79.7	80.8	86.8
Sex with a non-regular partner (last 12 months) [†]	11.2	1.5	5.0
n*	455	323	383
India (BSP)			
Sexual Intercourse	85.7	78.5	84.1
Sex with a non-regular partner (last 12 months) [†]	0.7	3.0	0.3
n*	403	328	339
Nepal			
Sexual Intercourse	99.8	92.4	92.9
Sex with a non-regular partner (last 12 months) [†]	0.7	2.2	3.0
n*	450	414	433
Bangladesh			
Sexual Intercourse	93.2	88.9	91.3
Sex with a non-regular partner (last 12 months) [†]	0.7	2.8	6.0
n*	287	393	397

* The lowest sample size (n) is reported. Due to missing, refuse, and don't know responses the sample size across indicators is not identical. [†]

[†] Sex with a non-regular partner is only of those who have had sexual intercourse.

The percentage of respondents to have *ever engaged in* sexual intercourse has remained relatively unchanged from baseline to end-line (IP or control population). Table 29 and Table 30 report the percentage of single respondents to have had sexual intercourse.

Table 29: Single and has had sexual intercourse - source countries

	Nepal			Bangladesh		
	BL (2011)	EL - CTRL (2014)	EL - IP (2014)	BL (2011)	EL - CTRL (2014)	EL - IP (2014)
Single and engaged in sexual intercourse	4.3	23.3	20.0	4.7	38.9	50.6
n	92	43	40	128	72	78

Table 30: Single and has had sexual intercourse - destination country

	India (NMP)			India (BSP)		
	BL (2011)	EL - CTRL (2014)	EL - IP (2014)	BL (2011)	EL - CTRL (2014)	EL - IP (2014)
Single and engaged in sexual intercourse	33.5	4.8	24.7	9.3	9.8	11.8
n	173	83	73	75	92	68

3.3.2 Condom Use

The small sample size reflected in Table 31 reflects the low number of respondents to cite having had sex with a non-regular partner in the last 12 months. This could also be a result of individuals not being comfortable revealing to enumerators that they had sex with a non-regular partner in the previous 12

months. The small sample size is pervasive across both end-line and baseline activities. Therefore little can be drawn from the point estimates. Any sample size with lower than 30 is not reported.

Table 31: Percentage of respondents reporting having used a condom with non-regular partner on the last occasion of having sex – disaggregated by population

	Stratum			Number of observations		
	BL (2011)	EL - CTRL (2014)	EL - IP (2014)	BL	EL (CTRL)	EL (IP)
Destination Country						
India (NMP)	83.6	N/A	N/A	61	7	25
India (BSP)	100.0	N/A	N/A	3	11	3
Source Country						
Nepal	N/A	N/A	N/A	4	14	17
Bangladesh	N/A	30.6	64.4	3	36	45

There is a discernable difference between married end-line control respondents and married end-line EMPHASIS impact population respondents regarding condom use with regular partners or spouse. When asked a series of questions regarding their most recent sexual interaction with their spouse, a greater percentage of EMPHASIS IPs cited lower risk behaviors. The differences are large in magnitude and statistically significant (Table 32).

Table 32: Condom use - source countries

	Nepal		Bangladesh	
	EL - CTRL (2014)	EL - IP (2014)	EL - CTRL (2014)	EL - IP (2014)
Use of condom during last intercourse with partner	7.1	62.3***	11.8	40.7***
Use of condom during every intercourse with partner	0.0	22.6***	2.4	22.9***
Use of condom sometimes during intercourse with partner	26.2	37.7**	35.5	45.3***
Never use condom during intercourse with partner	69.0	39.6**	62.0	31.9**
<i>n*</i>	42	53	245	252

* The lowest sample size (n) is reported. Due to missing, refuse, and don't know responses the sample size across indicators is not identical.

Statistically different than EL - CTRL at the 10% (*), 5%(**) or 1%(***) levels (unmatched t-test)

In Nepal over 60 percent of respondents cited using a condom the last time they had sexual intercourse with their spouse (Table 32). Similarly nearly 30 percent of respondents cite always using a condom during intercourse with their partner and 70 percent of Nepal control population respondents cited never using a condom during intercourse with their partners. Bangladesh follows a similar pattern as Nepal; half of respondents cite having used a condom during their last intercourse with their spouse. A greater percentage of respondents in Bangladesh control locations state they never use a condom during intercourse (Table 32).

Within India there is a statistically significant difference in condom use when comparing end-line control respondents and end-line EMPHASIS impact population (Table 33). The difference is consistent across each condom usage question; with CARE EMPHASIS IP having a greater percentage of low-risk behavior respondents. The BSP impact population shows the greatest difference to the impact population, particularly regarding “Never using a condom during intercourse with partner/spouse” (Table 33).

Table 33: Condom use - destination country

	India NMP		India BSP	
	EL - CTRL (2014)	EL - IP (2014)	EL - CTRL (2014)	EL - IP (2014)
Use of Condom during last intercourse with spouse	27.5	41.9***	13.0	39.3***
Use of condom during every intercourse with partner	8.4	8.7	2.3	7.2***
Use of condom sometimes during intercourse with partner	23.3	37.6***	11.5	42.1***
Never use condom during intercourse with partner	63.0	49.3***	84.0	48.6***
<i>n</i> *	250	290	257	286

* The lowest sample size (n) is reported. Due to missing, refuse, and don't know responses the sample size across indicators is not identical.

Statistically different than EL - CTRL at the 10% (*), 5%(**) or 1%(***) levels (unmatched t-test)

Using a condom to prevent/avoid pregnancy is cited by the largest percentage of respondents. A larger percentage of IP respondents cite using a condom to prevent HIV and AIDS, as well as STIs. This is true for NMP and BSP populations in Nepal, Bangladesh and India (Table 34 and Table 35).

Table 34: Reasons for condom use - source countries

	Nepal		Bangladesh	
	EL - CTRL (2014)	EL - IP (2014)	EL - CTRL (2014)	EL - IP (2014)
Avoiding pregnancy	89.9	87.1	89.8	89.6
HIV and AIDs prevention	71.3	88.5	29.0	86.8
STI prevention	15.9	57.5	10.9	14.7
Don't Know	5.8	3.9	5.9	1.0
Sexual pleasure	1.0	3.7	2.3	3.2
Other	0.5	5.3	4.3	8.5
<i>n</i>	433	414	397	393

The relative difference in means between the control and IP population is very large, further adding evidence that CARE EMPHASIS has had a positive impact on behavior change across its impact populations.

Table 35: Reasons for condom use - destination country

	India NMP		India BSP	
	EL - CTRL (2014)	EL - IP (2014)	EL - CTRL (2014)	EL - IP (2014)
Avoiding pregnancy	79.9	90.1	63.1	93.2
STI prevention	37.8	45.7	22.3	36.6
HIV and AIDs prevention	36.2	66.3	42.1	68.7
Sexual pleasure	12.4	22.2	13.4	23.9
Don't Know	9.3	1.8	17.1	5.3
Other	1.5	1.3	0.3	0.3
<i>n</i>	383	323	339	328

3.4 Family Planning

Table 36 provides strong evidence to support CARE EMPHASIS’s impact. There is a statistically significant, large and positive effect of CARE EMPHASIS on the communication of spouses around HIV and AIDS. The largest effect is in Nepal, IP populations households who are 70 percent more likely (when measured using propensity score matched regression analysis) to discuss HIV with their spouse or partner. This is even higher for female respondents, who are 76 percent more likely.

Table 36: Percentage of respondents who can discuss about HIV with their spouse and partners – disaggregated by gender and by population

	Point Estimates			Regression Treatment Effect (ATT)		Number of observations		
	BL (2011)	EL - CTRL (2014)	EL - IP (2014)	BL - EL Treatment	CTRL - EL Treatment	BL	EL (CTRL)	EL (IP)
Source Country								
Nepal	49.2	26.8	84.6	23.6***	69.8***	392	41	52
Female Respondent	49.2	12.5	75.0	15.3	76.1***	295	8	20
Male Respondent	49.5	30.3	90.6	30.0***	68.8***	97	33	32
Bangladesh	28.6	21.5	58.6	21.7***	41.1***	273	191	246
Female Respondent	24.2	30.2	63.8	33.1***	34.9***	149	116	145
Male Respondent	33.9	8.0	50.4	26.3***	46.3***	124	75	101
Destination Country								
India (NMP)	24.3	26.0	49.5	20***	36.2***	383	123	281
Female Respondent	17.8	52.8	71.4	58.8***	47.6***	185	36	56
Male Respondent	30.3	14.9	44.0	5.1	31.4***	198	87	225
India (BSP)	22.6	8.3	48.1	29.8***	38.5***	301	133	258
Female Respondent	28.2	27.8	72.8	-0.9	60.0***	202	18	103
Male Respondent	11.1	5.2	31.6	12.9*	28.8***	99	115	155

Statistically significant at the 10% (*), 5%(**) or 1%(***) levels

* The end-line survey did not ask questions around spousal issues if the respondent stated they had never been in a sexual relationship. In Nepal, upon completion of fieldwork, it was discovered there was a misunderstanding on the definition of "sexual relationship."

EMPHASIS had the lowest effect of NMP in India, and even then the effect of EMPHASIS programming was 36.2 percent treatment effect or that they were 36.2 percent more likely to speak with their spouses about HIV than the control respondents (Table 36). While the project aims to measure only female respondents, which have the highest treatment effect in each stratum other than Bangladesh, that the comparison of males provides valuable insight, further demonstrating the success and impact of EMPHASIS.

3.4.1 Family Planning Methods

The results in section 3.3.2 (condom use) are further validated when respondents are asked about the type of family planning they use with their partner. In both Nepal and Bangladesh, a greater percentage of IP respondents use male condoms as their family planning means than the associated end-line control populations. In both countries the control population is more likely to use an injection than IP populations (Table 37). Nearly 30 percent of control respondents in Bangladesh state they do not use any specific type of family planning (Table 37).

Table 37: Primary family planning method used - source country

	Nepal		Bangladesh	
	EL - CTRL (2014)	EL - IP (2014)	EL - CTRL (2014)	EL - IP (2014)
Male Condom	21.4	31.1	11.0	44.3
Injection	28.6	21.3	22.8	18.1
Birth Control Pill	7.1	11.5	30.4	22.1
None	7.1	8.2	25.1	12.1
Other**	35.7	27.9	10.6	3.5
<i>n</i> *	42	53	245	253

* The lowest sample size (n) is reported. Due to missing, refuse, and don't know responses the sample size across indicators is not identical.

**Other includes tubal ligation, which is large (35.7%) for Nepal control, and a small percentage for other stratum

Tubal ligation is the most cited form of family planning used in Nepal control areas with 35.7 percent (Table 37). In contrast, in IP areas, 31.1 percent of households cited a condom as their primary form of family planning. In Bangladesh only 12 percent of IP respondents cite having no form of family planning, where over 25 percent of control households cite no family planning. Within India, condoms are the most cited form of family planning; the exception is 52 percent of BSP control respondents who cite that they use no form of family planning (Table 38).

Table 38: Primary family planning method used - destination country

	India NMP		India BSP	
	EL - CTRL (2014)	EL - IP (2014)	EL - CTRL (2014)	EL - IP (2014)
Male Condom	32.2	37.0	17.5	39.6
Birth Control Pill	30.5	18.3	18.1	21.2
None	22.4	32.4	52.3	26.9
Injection	4.7	3.6	1.5	1.6
Emer. Con. Pills	3.4	2.6	4.2	3.9
Rhythm method	3.4	1.5	4.8	3.4
Other	3.4	4.6	1.5	3.4
<i>n</i> *	262	298	262	290

* The lowest sample size (n) is reported. Due to missing, refuse, and don't know responses the sample size across indicators is not identical.

A greater percentage of IP respondents in Nepal are very confident that they could obtain a condom if they wanted to (65 percent) compared to the control population (26.8 percent) (Table 39). Nearly three-quarters of IP respondents cited they could obtain a condom from a Health worker. In contrast, in Bangladesh, a lower percentage of IP respondents feel they could obtain a condom if they wanted. However 73.5 percent of impact population respondents would obtain a condom from a peer educator or NGO (Table 39).

Table 39: Ability and location to obtain condom(s) – source country

	Nepal		Bangladesh	
	EL - CTRL (2014)	EL - IP (2014)	EL - CTRL (2014)	EL - IP (2014)
% of respondents <i>very</i> confident they could obtain a condom	26.8	65.4	74.7	57.8
<i>Cited locations to obtain condom:</i>				
Health worker/VHW/FWV	27.8	73.4	15.3	26.8
Pharmacy/Med shop	77.3	58.9	83.5	71.4
Peer educator/NGO	0.5	37.2	1.0	73.5
Shop	13.8	31.4	78.4	65.6
Clinic/Hospital	47.6	29.1	26.0	31.9
Community clinic	18.8	24.5	39.9	63.4
Sexual partner	1.2	15.5	1.0	0.7
Condom bank/vending machine	1.0	8.3	0.0	0.0
Don't Know	5.3	5.3	4.6	0.3
Friend	0.0	0.9	0.5	1.0
Others	0.2	0.2	0.5	0.5
Bar/Guest house/hotel	0.0	0.2	0.5	0.3
<i>n</i>	433	414	397	393

Twice as many IP respondents cite they feel confident they could obtain a condom if they wanted to in India. Over three-quarters of NMP IP are very confident they could obtain a condom, and 57 percent of BSP IPs are very confident they could obtain a condom (Table 40). The majority of respondents would obtain the condom from a pharmacy or shop, regardless if the respondent was from the IP or control area. The anonymity of an urban life may provide some explanation as to why more IP populations would go to a shop rather than a health worker or peer educator (as in source countries, Table 39).

Table 40: Ability and location to obtain condom(s) – destination country

	India NMP		India BSP	
	EL - CTRL (2014)	EL - IP (2014)	EL - CTRL (2014)	EL - IP (2014)
% of respondents <i>very</i> confident they could obtain a condom	35.6	78.6	28.4	57.5
<i>Cited locations to obtain condom:</i>				
Pharmacy/Med shop	78.0	88.8	70.1	85.5
Clinic/Hospital	18.9	34.7	14.6	15.9
Health worker/VHW/FWV	3.4	28.5	1.5	30.1
Community clinic	7.7	26.6	6.4	24.8
Shop	35.9	22.7	22.6	36.0
Condom bank/vending machine	1.9	8.6	1.5	2.1
Peer educator/NGO	0.0	8.1	0.3	0.0
Don't Know	19.2	5.2	22.6	10.0
Friend	0.0	0.8	0.0	1.2
Sexual partner	0.3	0.5	0.0	0.3
Bar/Guest house/hotel	0.6	0.0	0.0	17.4
Others	0.3	0.0	0.0	0.3
<i>n</i>	383	323	339	328

3.4.2 HIV and AIDS Communication

A key objective of the EMPHASIS project is to decrease the stigma associated with discussing sexual health and HIV and AIDS with spouses and partners, Table 36 and Table 63 highlight how effective EMPHASIS has been. In Nepal and Bangladesh, large strides have been made from the baseline, and also in comparison to the control population, as to the percentage of respondents which state they discuss HIV with their spouse or partner. In each case, at the stratum level and when disaggregated by sex of respondent, the difference between the CARE EMPHASIS IP and the baseline and end-line control populations are statistically significant. Communication around HIV is much more prevalent in CARE EMPHASIS respondent relationships than control or baseline relationships. Over 70 percent of female IP respondents, both NMP and BSP, discuss HIV with their spouse (for further details see section 3.4)

3.5 HIV and AIDS Knowledge, Attitudes and Practices

Two key project indicators measure the impact population's HIV and AIDS knowledge; a respondent's ability to correctly identify two or more major modes of transmission, and respondents rejecting two or more misconceptions of HIV transmission (Table 41 and Table 42). In Nepal and Bangladesh, there is a statistically significant and large effect of CARE EMPHASIS, when comparing end-line impact population and to baseline and to end-line control population for both indicators. This holds true when the data are disaggregated between male and female respondents. The only exception is male respondents in Nepal – which is largely driven by the high knowledge level of Nepali men at the baseline (Table 42).

Table 41: Percent of respondents aware of HIV and AIDS who correctly identify at least two major modes of transmission of HIV – disaggregated by gender and by population

	Point Estimates			Regression Treatment Effect (ATT)		Number of observations		
	BL (2011)	EL - CTRL (2014)	EL - IP (2014)	BL - EL Treatment	CTRL - EL Treatment	BL	EL (CTRL)	EL (IP)
Source Country								
Nepal	91.4	83.3	95.4	13.7***	18.2***	406	420	435
Female Respondent	89.6	82.4	96.5	16.1***	21.8***	307	323	344
Male Respondent	97.0	86.6	91.2	1.3	5.4	99	97	91
Bangladesh	66.2	44.7	86.6	29.5***	49.8***	293	311	438
Female Respondent	60.0	55.8	82.9	24.7***	41.3***	150	156	254
Male Respondent	72.7	33.5	92.0	27.7***	60.3***	143	155	184
Destination Country								
India (NMP)	75.9	90.0	96.4	20.7***	21.0***	506	229	445
Female Respondent	65.3	85.1	94.4	27.9***	52.0***	199	67	90
Male Respondent	82.7	92.0	96.9	-6.9***	6.6***	307	162	355
India (BSP)	62.5	90.3	98.4	29.1***	35.5***	379	217	368
Female Respondent	67.5	92.3	99.3	17.1	63.8***	234	39	143
Male Respondent	54.5	89.9	97.8	43.3***	17.2***	145	178	225

Statistically significant at the 10% (*), 5%(**) or 1%(***) levels

The effect of the EMPHASIS project on the IP's ability to identify at least two modes of transmission is between 18.2 and 49.8 percent across all strata when compared to the end-line control populations (Table 41). This effect is largest in all four strata for female respondents – providing substantial evidence that CARE EMPHASIS has focused specifically on the knowledge of females.

The effect of EMPHASIS programing on IP respondent’s ability to identify two misconceptions about HIV and aids transmission is also impressive. In Bangladesh and India the effect is statistically significant and large – again with women demonstrating a large effect compared to end-line control populations. Nepal does not have a significant effect when compared to the end-line, however when disaggregated by gender the effect on female respondents is significant (Table 42).

Table 42: Percent of respondents who correctly reject at least 2 major misconceptions about HIV transmission – disaggregated by gender and by population

	Point Estimates			Regression Treatment Effect (ATT)		Number of observations		
	BL (2011)	EL - CTRL (2014)	EL - IP (2014)	BL - EL Treatment	CTRL - EL Treatment	BL	EL (CTRL)	EL (IP)
Source Country								
Nepal	90.1	95.7	97.9	15.7***	3.4	406	420	435
Female Respondent	88.3	94.7	98.3	16.5***	6.7**	307	323	344
Male Respondent	96.0	99.0	96.7	6.7	0.6	99	97	91
Bangladesh	46.8	65.3	89.5	45.6***	40.5***	293	311	438
Female Respondent	40.7	64.1	85.8	46.2***	34.7***	150	156	254
Male Respondent	53.1	66.5	94.8	38.7***	48.1***	143	155	184
Destination Country								
India (NMP)	88.1	97.8	99.6	12.7***	20.1***	506	229	445
Female Respondent	83.4	100.0	97.8	15.8**	43.8***	199	67	90
Male Respondent	91.2	96.9	100.0	10.6***	7.6***	307	162	355
India (BSP)	35.9	97.7	99.2	55.4***	35.6***	379	217	368
Female Respondent	41.0	94.9	98.6	38.1**	63.2***	234	39	143
Male Respondent	27.6	98.3	99.6	77.3***	16.6***	145	178	225

Statistically significant at the 10% (*), 5%(**) or 1%(***) levels

The largest effect in Table 42 is demonstrated by female BSP respondents in India; female BSP IP respondents are 63.2 percent more likely to identify two misconceptions about HIV than control female BSP respondents.

Table 43: Percent of respondents aware of HIV prior to interview and of those who believe confidential testing is available – source country

	Nepal		Bangladesh	
	EL - CTRL (2014)	EL - IP (2014)	EL - CTRL (2014)	EL - IP (2014)
Aware of HIV	93.8	93.3	70.2	98.4***
<i>n</i>	448	466	443	444
Believe HIV can be prevented (of those who knew of HIV)	63.1	81.6***	50.8	75.8***
Confidential Testing Available (of those who knew of HIV)	26.0	49.9***	38.9	62.8
<i>n</i>	420	435	311	438

Statistically different than EL - CTRL at the 10% (*), 5%(**) or 1%(***) levels (unmatched t-test)

Table 43 and Table 44 show the perceptions of HIV and AIDS. Between 90 percent and 98 percent of impact populations respondents were aware of HIV; the lowest HIV awareness level is reported by control respondents in India, both NMP and BSP, with 54.9 and 50.9 percent respectively citing they were aware of HIV (Table 43 and Table 44). EMPHASIS impact population respondents, particularly those in Nepal and Bangladesh, are much more likely to know that HIV can be prevented (Table 43).

Table 44: Percent of respondents aware of HIV prior to interview and of those who believe confidential testing is available –Destination country

	India NMP		India BSP	
	EL - CTRL (2014)	EL - IP (2014)	EL - CTRL (2014)	EL - IP (2014)
Aware of HIV	54.9	94.1***	50.9	89.5***
<i>n</i>	417	473	426	411
Believe HIV can be prevented (of those who knew of HIV)	52.4	53.9	32.7	58.7***
Confidential Testing Available (of those who knew of HIV)	62.4	88.3***	69.1	84.8***
<i>n</i>	229	445	217	368

Statistically different than EL - CTRL at the 10% (*), 5%(**) or 1%(***) levels (unmatched t-test)

In India this is also true, but only significant for BSP IP (Table 44). Most notably, in Table 43 and Table 44, is the percentage of impact population respondents to cite that they believe confidential testing of HIV is available. This is an excellent result of CARE EMPHAIS.

Table 45: Cited means of HIV and AIDS contraction (un-prompted) - source country

	Nepal		Bangladesh	
	EL - CTRL (2014)	EL - IP (2014)	EL - CTRL (2014)	EL - IP (2014)
<i>Cited methods of HIV and AIDS contraction (recall):</i>				
Sex with HIV/AIDS infected person w/o condom	80.2	87.8	68.2	86.1
Sex with HIV-positive person w/o condom	73.6	81.8	27.0	57.4
Blood transfusion from HIV-positive person	89.3	79.5	29.6	73.0
Reuse of injection	32.4	54.0	3.5	8.9
If the tools using during operation not sterilized	10.2	39.3	7.1	39.4
HIV-positive i mother to child at the pregnancy	14.8	37.2	33.8	43.6
Having sex without condom with sex worker	4.3	24.1	9.3	35.0
HIV-positive mother to child at lactating stage	3.6	4.8	2.9	1.9
Through mosquitoes/insects bite*	0.2	1.4	3.5	4.0
Using dishes of HIV-positive person*	1.9	0.9	3.5	1.0
Coughing, saliva or sneezing by the infected people*	0.5	0.7	1.0	0.6
Using clothes of HIV-positive person*	0.5	0.2	7.4	2.6
Not staying neat and clean*	0.2	0.0	1.9	1.4
Normal relation with HIV-positive person*	1.0	3.4	10.3	3.5
Don't Know	435	420	438	311

*Misconception

Table 45 and Table 46 present the responses of respondents when asked “How can a person contract HIV?” The responses were un-prompted (not read aloud). A greater percentage of Bangladesh and Nepal IP respondents cited actual modes of transmission than the control respondents. At source countries a greater percentage of control populations respondents cite misconceptions, however the marginal differences are small. In India, for both BSP and NMP respondents, the percentages of persons to cite an HIV misconception was very low or zero (Table 46).

Table 46: Cited means of HIV and AIDS contraction (un-prompted) - destination country

	India NMP	India BSP
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	EL - CTRL (2014)	EL - IP (2014)	EL - CTRL (2014)	EL - IP (2014)
<i>Cited methods of HIV and AIDS contraction (recall):</i>				
Sex with HIV/AIDS infected person w/o condom	81.7	94.8	87.1	94.6
Sex with HIV-positive person w/o condom	77.7	93.9	74.7	93.8
Blood transfusion from HIV-positive person	79.5	89.9	77.9	92.1
Reuse of injection	27.1	34.4	10.6	34.0
If the tools using during operation not sterilized	24.9	30.8	9.2	20.4
HIV-positive i mother to child at the pregnancy	11.4	9.9	1.4	4.6
Having sex without condom with sex worker	9.2	3.4	0.5	0.3
HIV-positive mother to child at lactating stage	0.4	0.2	0.0	0.0
Through mosquitoes/insects bite*	0.4	0.2	0.0	0.0
Using dishes of HIV-positive person*	0.0	0.2	0.0	0.0
Coughing, saliva or sneezing by the infected people*	0.0	0.0	0.5	0.0
Using clothes of HIV-positive person*	0.0	0.0	0.0	0.3
Not staying neat and clean*	0.0	0.0	0.0	0.0
Normal relation with HIV-positive person*	1.3	1.8	2.8	0.3
<i>n</i>	445	229	368	217

*Misconception

Table 47 and Table 48 explore respondents' attitudes towards people living with HIV and AIDS. An overwhelming percentage of respondents, regardless of country, feel that people living with HIV and AIDS (PLHA) have the right to the same health care as others. Fewer EMPHASIS IP respondents feel PLHA should be separated from the public for public health reasons; there is a large difference in attitude across respondents in Bangladesh and Nepal, with a greater percentage of respondents in Bangladesh feeling that PLHA should be separated from the public. When asked if PLHA should not have children or marry, over 60 percent of respondents in both countries felt PLHA should not (Table 47). In Nepal significantly fewer IP respondents felt this; however the attitude was held by over half of all respondents.

Table 47: HIV and AIDS attitudes – source countries

	Nepal		Bangladesh	
	EL - CTRL (2014)	EL - IP (2014)	EL - CTRL (2014)	EL - IP (2014)
Believe PLHA have right to same care as others	94.0	90.8***	87.4	93.7***
Believe PLHA should be legally separated from public	14.3	9.4***	66.4	44.5***
Believe PLHA should not have children	78.6	67.8***	82.2	81.3
Believe PLHA should not marry	71.4	63.1***	78.6	78.5
<i>n</i>	448	466	443	444

Statistically different than EL - CTRL at the 10% (*), 5%(**) or 1%(***) levels (unmatched t-test)

Table 48: HIV and AIDS attitudes – destination country

	India NMP		India BSP	
	EL - CTRL (2014)	EL - IP (2014)	EL - CTRL (2014)	EL - IP (2014)
Believe PLHA have right to same care as others	74.3	91.5***	78.2	90.3***
Believe PLHA should be legally separated from public	11.5	2.1***	17.4	6.3***
Believe PLHA should not have children	25.7	16.7***	27.5	14.1***
Believe PLHA should not marry	31.7	14.8***	33.1	24.1***
<i>n</i>	417	473	426	411

Statistically different than EL - CTRL at the 10% (*) , 5%(**) or 1%(***) levels (unmatched t-test)

EMPHASIS IP respondents in India have a more open attitude towards persons living with HIV and AIDS (PLHA) than control locations (Table 48). Table 48 shows a greater percentage of IP respondents in India believing PLHA have a right to the same health care as other. Equally, there are fewer EMPHASIS IP respondents who feel that PLHA should be legally separated from the public for public health reasons, and fewer IP respondents feel PLHA should not have children or should not marry.

Table 49: sources of HIV and AIDS information - source country

	Nepal		Bangladesh	
	EL - CTRL (2014)	EL - IP (2014)	EL - CTRL (2014)	EL - IP (2014)
Knowledge of HIV and AIDS testing location	61.9	87.8***	26.0	63.6***
Statistically different than EL - CTRL at the 10% (*) , 5%(**) or 1%(***) levels (unmatched t-test)				
<i>Source(s) of HIV and AIDS related information:</i>				
EMPHASIS Workers	0.2	83.4	0.3	92.2
Radio	91.7	76.6	8.4	6.5
Television	36.7	44.8	60.1	49.8
Friends	24.5	41.8	49.2	30.4
Other NGO workers	6.0	34.7	21.2	17.3
Posters	19.3	22.1	6.1	8.9
Families	11.0	17.9	14.8	15.6
Coworkers	6.0	14.9	14.8	10.5
Doctors	5.7	14.0	19.3	14.3
Others	1.7	4.1	19.9	9.5
Bill board	4.8	1.8	0.6	5.4
Live Performance Art	1.2	1.6	2.3	0.6
<i>n</i>	435	420	438	311

Table 49 and Table 50 present the percentage of respondents to know where they can obtain HIV and AIDS testing, as well as their sources of information around HIV and AIDS. At the sources and in the destination country, a statistically significant and much larger percentage of EMPHASIS impact population's respondents know where to obtain HIV testing. This is a large success of the project which is further supported by finding that the source of HIV AIDS information of IP respondents is EMPHASIS workers (Table 49 and Table 50). Further information on HIV and AIDS *prompted* knowledge questions can be found in Annex D, Table 74 and Table 75.

Table 50: Sources of HIV and AIDS information - destination country

	India NMP		India BSP	
	EL - CTRL (2014)	EL - IP (2014)	EL - CTRL (2014)	EL - IP (2014)
Knowledge of HIV and AIDS testing location	66.4	91.2***	65.4	95.9***
Statistically different than EL - CTRL at the 10% (*), 5%(**) or 1%(***) levels (unmatched t-test)				
<i>Source(s) of HIV and AIDS related information:</i>				
EMPHASIS Workers	0.9	77.3	3.2	78.8
Television	90.8	73.3	89.9	82.9
Friends	66.4	45.6	77.4	57.6
Posters	41.5	44.5	30.4	41.3
Other NGO workers	3.1	34.4	0.5	12.8
Radio	27.5	21.1	17.1	19.6
Coworkers	10.9	16.2	25.3	6.0
Live Performance Art	7.9	9.4	4.1	7.3
Bill board	4.8	8.5	5.5	5.2
Families	11.8	8.3	5.1	10.9
Doctors	14.8	6.1	14.3	12.0
Others	0.4	0.4	0.5	0.3
<i>n</i>	445	229	368	217

Table 51 and Table 52 report respondent’s self-assessed risk of contracting HIV and AIDS. In Nepal nearly all of the control population felt they had no risk of contracting HIV and AIDS. In contrast, only 80 percent of the Nepal impact population said they had no risk of contracting HIV and AIDS, and 14.6 percent feel they have a moderate risk. Of the 14.6 percent to state they had a moderate risk, the primary reasons they felt they were at risk were that their spouse has migrated for work and drug/alcohol use.²⁸ Between 84.9 and 90.6 percent of Bangladeshi respondents cited no risk of contracting HIV and AIDS, control and impact population respectively (Table 52).

Table 51: Cited self-assessed risk of contracting HIV and AIDS - source country

	Nepal		Bangladesh	
	EL - CTRL (2014)	EL - IP (2014)	EL - CTRL (2014)	EL - IP (2014)
No Risk	98.4	80.7	84.9	90.6
Low Risk	0.9	2.4	4.1	1.3
Moderate Risk	0.7	14.6	3.4	4.7
High Risk	0.0	2.4	0.5	0.6
<i>n</i>	466	488	444	443

In India, regardless of population, nearly all respondents (between 97.9 and 99.5 percent) cite no risk of contracting HIV and AIDS (Table 52).

²⁸ The sample size was too small to provide point estimates for Bangladesh or India populations.

Table 52: Cited self-assessed risk of contracting HIV and AIDS - destination country

	India NMP		India BSP	
	EL - CTRL (2014)	EL - IP (2014)	EL - CTRL (2014)	EL - IP (2014)
No Risk	99.5	97.9	99.5	98.1
Low Risk	0.0	0.6	0.0	1.2
Moderate Risk	0.2	1.1	0.5	0.7
High Risk	0.2	0.4	0.0	0.0
<i>n</i>	473	417	411	426

The presence of discharge from the genitals is a sign of risky sexual behavior and is closely correlated to the risk perceptions of respondents. Table 53 and Table 54 support the risk perceptions of respondents in Table 51 and Table 52. At the source country there is a higher prevalence of genital discharge, which correlates with the higher self-risk perception of respondents in source countries (Table 51 and Table 53).

Table 53: Respondents cited having a thick yellowish/greenish discharge with foul smell from genitals in the past 12 months

	Nepal		Bangladesh	
	EL - CTRL (2014)	EL - IP (2014)	EL - CTRL (2014)	EL - IP (2014)
Current migrant	17.6	15.7	14.2	9.7
Male	21.0	17.1	23.0	9.8
Female	4.7	9.6	2.9	9.4
<i>n</i>	414	433	393	397

Similarly, Table 52 and Table 54 support low risk behaviors and low risk self-assessment. Nearly no respondents cite a presence of discharge from genitals, while nearly all respondents have a self-assessment of no risk of contracting HIV and AIDS.

Table 54: Respondents cited having a thick yellowish/greenish discharge with foul smell from genitals in the past 12 months

	India NMP		India BSP	
	EL - CTRL (2014)	EL - IP (2014)	EL - CTRL (2014)	EL - IP (2014)
Current migrant	1.5	1.8	2.4	5.9
Male	0.0	2.4	0.0	0.0
Female	3.5	1.7	4.1	10.5
<i>n</i>	323	383	328	339

3.6 Service Provision and Access

3.6.1 Service Provider(s)

Respondents in Nepal visited a government or municipal hospital the last time they required health services of any kind. In Bangladesh a pharmacy or drugstore was the primary location visited for health services. In Bangladesh, EMPHASIS IP respondents were more likely to visit a private doctor than individuals in a control location. However in Nepal the opposite was true of private hospitals. In Bangladesh and Nepal 10 percent of respondents visited community health worker or volunteer (Table 55).

Table 55: Type of service provided respondent visited the last time they went to a medical service provider – source countries

	Nepal		Bangladesh	
	EL - CTRL (2014)	EL - IP (2014)	EL - CTRL (2014)	EL - IP (2014)
Govt./Municipal Hospital	49.3	46.1	20.3	25.4
Pvt. Hospital	30.8	20.0	5.6	4.4
Pvt. Doctor/Clinic	10.0	12.2	18.5	26.1
Pharmacy/Drugstore	5.4	2.8	45.8	29.7
Govt. Dispensary	2.0	15.0	0.0	0.0
Other	1.8	3.0	0.9	3.8
Govt. Mobile clinic	0.4	0.6	0.0	0.5
Home Treatment	0.2	0.2	2.0	2.6
Comm. Vol/Health worker	0.0	0.0	6.8	7.5
<i>n</i>	448	466	443	444

In India, regardless if the respondent was an EMPHASIS IP, Control, NMP or BSP, the majority of respondents visited a government or hospital the last time they needed to seek medical attention of any kind (Table 56). The next most frequented type of service provider was a private doctor or clinic.

Table 56: Type of service provided respondent visited the last time they went to a medical service provider – destination country

	India NMP		India BSP	
	EL - CTRL (2014)	EL - IP (2014)	EL - CTRL (2014)	EL - IP (2014)
Govt./Municipal Hospital	58.8	68.5	55.2	58.2
Pvt. Doctor/Clinic	25.7	20.5	35.7	30.2
Govt. Dispensary	12.2	3.4	2.3	6.8
Pvt. Hospital	1.2	5.3	5.2	2.4
Pharmacy/Drugstore	1.2	0.2	0.9	0.5
Other	0.7	1.7	0.5	1.5
Govt. Mobile clinic	0.2	0.4	0.2	0.5
<i>n</i>	417	473	426	411

At source countries, respondents' primary sources of information regarding health felicities were self, or influenced by a family member (Table 57). In Nepal, 35 percent of EMPHASIS IP respondents cited that EMPHASIS workers were a source of information for their most recent medical visit. In contrast, only 7.6 percent of Bangladesh IP respondents cited EMPHASIS workers as an information source (Table 57).

Table 57: Information source to visit the most recent medical service provider – source country

	Nepal		Bangladesh	
	EL - CTRL (2014)	EL - IP (2014)	EL - CTRL (2014)	EL - IP (2014)
Self-decision	82.3	79.0	90.7	79.8
Family members	51.6	57.9	65.5	55.1
EMPHASIS Workers	5.7	35.6	0.7	7.6
Friends	0.2	15.6	0.2	2.7
Gov/ Health workers	2.5	15.2	3.6	0.1
NGO (non-EMPHASIS) workers	4.5	14.3	0.5	0.2
Other Relatives	7.3	11.1	9.8	7.6
Village influential	5.9	8.7	0.5	1.0
Media	0.0	3.9	0.0	0.0
Other Relatives	0.0	1.1	0.0	0.1
Don't Know	0.0	0.2	0.0	0.1
<i>n</i>	448	466	443	444

Similar to source countries, all respondents in India cited “self-decision” as their primary reason to select their most recent medical service provider (Table 58). However EMPHASIS workers were the second most common source of information to EMPHASIS IP BSP and NMP respondents (Table 58).

Table 58: Information source to visit the most recent medical service provider – destination country

	India NMP		India BSP	
	EL - CTRL (2014)	EL - IP (2014)	EL - CTRL (2014)	EL - IP (2014)
Self-decision	83.9	73.2	79.3	65.5
EMPHASIS Workers	0.0	26.8	1.6	46.5
Family members	46.3	14.8	50.2	26.8
Friends	14.1	7.4	10.1	25.1
NGO (non-EMPHASIS) workers	0.0	4.7	0.2	0.5
Other Relatives	9.6	1.9	8.5	6.6
Village influential	0.2	1.9	0.7	2.7
Media	0.2	1.7	0.7	0.0
Gov. Health workers	0.5	0.8	0.7	2.2
Don't Know	0.2	0.8	0.2	0.7
Other Relatives	0.2	0.0	0.0	0.1
<i>n</i>	417	473	426	411

4. Conclusion

The CARE EMPHASIS project, when measured by its key project and outcome indicators (see annexes A – C), which align with the program log-frame goals (see annex E), is overwhelmingly successful. These findings are robust when comparing baseline to end-line impact groups (longitudinally) and end-line control to end-line impact groups (cross-sectional) with traditional t-tests, propensity score matched average treatment effects and propensity score matched average treatment effects of the treated.

CARE EMPHASIS has achieved an effective and integrated cross border model of HIV prevention, care, treatment and support. The data repeatedly demonstrate this accomplishment. CARE EMPHASIS Impact population respondents consistently cite; lower risk behaviors; increased knowledge of HIV and AIDS;

better health seeking behaviors; and they regularly cite CARE EMPHASIS or its associated EMPHASIS workers, village health workers, or peer educators as the source of this information.

The impact population community environment which has been strengthened and enabled by CARE EMPHASIS for cross-border mobile populations, when evaluated on the bases of impact population knowledge, attitude and practices, is strong and growing. This is particularly the case for females and Bengali speaking populations; a population has a dearth in rights and entitlements within India at the moment. . Table 72 provides further evidence that the BSP population feels that EMPHASIS is creating a more enabling cross-bordering environment.

The results of the end-line activity clearly demonstrate the success and impact of the CARE EMPHASIS project. The findings in this report, particularly from the key project and outcome indicators, offer strong evidence that CARE's EMPHASIS program has had a positive and significant impact on each of the four key impact populations: India Nepali Migrant Populations (NMP and India Bengali Speaking Populations (NSP) individuals within India and Nepali and Bengali households in the source countries. Positive program effects are found across key project indicators, outcome indicators, and other additional indicators

4.1 Opportunities and Lessons Learned

The success of CARE EMPHASIS at the individual and household level is empirically significant. There are few data sets currently available for mobile populations, at source and destinations, let alone which include information on HIV and AIDS knowledge, attitudes and practices.

The data collected by the CARE EMPHASIS project throughout its program is rich with information that can be further analyzed to inform HIV and AIDS programs, migrant programs, and cross-border programs throughout South Asia and the world. The CARE EMPHASIS data contains much more information that can support and inform further studies and analysis.

It is a challenge to evaluate complex and sensitive issues among vulnerable and transient populations. In future iterations of this work, CARE can further strengthen the data and future data, by implementing simple, effective, and strong monitoring systems which allow them and evaluators to sample the impact population. This is not an easy task. The number one goal of these systems should be to inform project staff and allow them to best serve the impact populations. A strong monitoring system also greatly strengthens baseline and end-line findings, and allows for more robust sampling methodologies.

5. Works Cited

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6. Annexes

A. Key Portfolio Goal Indicator Tables

Table 59: Percentage of respondents aware of HIV and AIDS who correctly identify at least two major modes of transmission of HIV – disaggregated by gender and by population

	Point Estimates			Regression Treatment Effect (ATT)		Number of observations		
	BL (2011)	EL - CTRL (2014)	EL - IP (2014)	BL - EL Treatment	CTRL - EL Treatment	BL	EL (CTRL)	EL (IP)
Source Country								
Nepal	91.4	83.3	95.4	13.7***	18.2***	406	420	435
Female Respondent	89.6	82.4	96.5	16.1***	21.8***	307	323	344
Male Respondent	97.0	86.6	91.2	1.3	5.4	99	97	91
Bangladesh	66.2	44.7	86.6	29.5***	49.8***	293	311	438
Female Respondent	60.0	55.8	82.9	24.7***	41.3***	150	156	254
Male Respondent	72.7	33.5	92.0	27.7***	60.3***	143	155	184
Destination Country								
India (NMP)	75.9	90.0	96.4	20.7***	21.0***	506	229	445
Female Respondent	65.3	85.1	94.4	27.9***	52.0***	199	67	90
Male Respondent	82.7	92.0	96.9	-6.9***	6.6***	307	162	355
India (BSP)	62.5	90.3	98.4	29.1***	35.5***	379	217	368
Female Respondent	67.5	92.3	99.3	17.1	63.8***	234	39	143
Male Respondent	54.5	89.9	97.8	43.3***	17.2***	145	178	225

Statistically significant at the 10% (*), 5%(**) or 1%(***) levels

Table 60: Percentage of respondents who correctly reject at least 2 major misconceptions about HIV transmission – disaggregated by gender and by population

	Point Estimates			Regression Treatment Effect (ATT)		Number of observations		
	BL (2011)	EL - CTRL (2014)	EL - IP (2014)	BL - EL Treatment	CTRL - EL Treatment	BL	EL (CTRL)	EL (IP)
Source Country								
Nepal	90.1	95.7	97.9	15.7***	3.4	406	420	435
Female Respondent	88.3	94.7	98.3	16.5***	6.7**	307	323	344
Male Respondent	96.0	99.0	96.7	6.7	0.6	99	97	91
Bangladesh	46.8	65.3	89.5	45.6***	40.5***	293	311	438
Female Respondent	40.7	64.1	85.8	46.2***	34.7***	150	156	254
Male Respondent	53.1	66.5	94.8	38.7***	48.1***	143	155	184
Destination Country								
India (NMP)	88.1	97.8	99.6	12.7***	20.1***	506	229	445
Female Respondent	83.4	100.0	97.8	15.8**	43.8***	199	67	90
Male Respondent	91.2	96.9	100.0	10.6***	7.6***	307	162	355
India (BSP)	35.9	97.7	99.2	55.4***	35.6***	379	217	368
Female Respondent	41.0	94.9	98.6	38.1**	63.2***	234	39	143
Male Respondent	27.6	98.3	99.6	77.3***	16.6***	145	178	225

Statistically significant at the 10% (*), 5%(**) or 1%(***) levels

Table 61: Percentage of respondents who can discuss about HIV with their spouse and partners – disaggregated by gender and by population

	Point Estimates			Regression Treatment Effect (ATT)		Number of observations		
	BL (2011)	EL - CTRL (2014)	EL - IP (2014)	BL - EL Treatment	CTRL - EL Treatment	BL	EL (CTRL)	EL (IP)
Source Country								
Nepal	49.2	26.8	84.6	23.6***	69.8***	392	41	52
Female Respondent	49.2	12.5	75.0	15.3	76.1***	295	8	20
Male Respondent	49.5	30.3	90.6	30.0***	68.8***	97	33	32
Bangladesh	28.6	21.5	58.6	21.7***	41.1***	273	191	246
Female Respondent	24.2	30.2	63.8	33.1***	34.9***	149	116	145
Male Respondent	33.9	8.0	50.4	26.3***	46.3***	124	75	101
Destination Country								
India (NMP)	24.3	26.0	49.5	20***	36.2***	383	123	281
Female Respondent	17.8	52.8	71.4	58.8***	47.6***	185	36	56
Male Respondent	30.3	14.9	44.0	5.1	31.4***	198	87	225
India (BSP)	22.6	8.3	48.1	29.8***	38.5***	301	133	258
Female Respondent	28.2	27.8	72.8	-0.9	60.0***	202	18	103
Male Respondent	11.1	5.2	31.6	12.9*	28.8***	99	115	155

Statistically significant at the 10% (*), 5%(**) or 1%(***) levels

* The end-line survey did not ask questions around spousal issues if the respondent stated they had never been in a sexual relationship. In Nepal, upon completion of fieldwork, it was discovered there was a misunderstanding on the definition of "sexual relationship."

Table 62: Percentage of respondents reporting having used a condom with non-regular partner on the last occasion of having sex – disaggregated by population

	Point Estimates			Regression Treatment Effect (ATT)		Number of observations		
	BL (2011)	EL - CTRL (2014)	EL - IP (2014)	BL - EL Treatment	CTRL - EL Treatment	BL	EL (CTRL)	EL (IP)
Source Country								
Nepal	N/A	N/A	N/A	N/A	N/A	4	14	17
Bangladesh	N/A	30.6	63.2	N/A	2.3	3	36	45
Destination Country								
India (NMP)	83.6	N/A	N/A	N/A	N/A	61	7	25
India (BSP)	N/A	N/A	N/A	N/A	N/A	3	11	3

Statistically significant at the 10% (*), 5%(**) or 1%(***) levels

Table 63: Percentage of migrants currently in India who are provided accident compensation from their employer

	Point Estimates			Regression Treatment Effect (ATT)		Number of observations		
	BL (2011)	EL - CTRL (2014)	EL - IP (2014)	BL - EL Treatment	CTRL - EL Treatment	BL	EL (CTRL)	EL (IP)
Destination Country								
India (NMP)	4.3	1.2	8.7	1.7	7.9***	530	417	473
Female Respondent	1.0	0.0	5.0	10.5***	0.2	196	209	100
Male Respondent	6.3	2.4	9.7	0.6	8.4***	334	208	373
India (BSP)	0.3	1.2	10.0	9.8***	9.1***	324	426	411
Female Respondent	0.0	0.0	0.6	N/A	0.7	161	158	169
Male Respondent	0.6	1.9	16.5	12.3***	13.5***	163	268	242

Table 64: Percentage of migrants currently in India who are provided health care benefits from their employer

	Point Estimates			Regression Treatment Effect (ATT)		Number of observations		
	BL (2011)	EL - CTRL (2014)	EL - IP (2014)	BL - EL Treatment	CTRL - EL Treatment	BL	EL (CTRL)	EL (IP)
Destination Country								
India (NSB)	6.8	0.7	5.9	-4.1**	5.5***	530	417	473
Female Respondent	3.1	0.0	4.0	5.7	0.3	196	209	100
Male Respondent	9.0	1.4	6.4	-6.9***	5.8***	334	208	373
India (BSP)	0.3	0.9	1.2	1.8	1.0	324	426	411
Female Respondent	0.0	0.0	0.0	N/A	0.7	161	158	169
Male Respondent	0.6	1.5	2.1	1.9	1.6	163	268	242

Statistically significant at the 10% (*), 5%(**) or 1%(***) levels

Table 65: Percentage of migrants currently in India who receive same type of overtime pay as their Indian counterparts

	Point Estimates			Regression Treatment Effect (ATT)		Number of observations		
	BL (2011)	EL - CTRL (2014)	EL - IP (2014)	BL - EL Treatment	CTRL - EL Treatment	BL	EL (CTRL)	EL (IP)
Destination Country								
India (NSB)	65.7	23.7	50.1	-22.7***	10.0***	530	417	473
Female Respondent	43.9	5.7	22.0	2.9	1.3	196	209	100
Male Respondent	78.4	41.8	57.6	-24.7***	8.7**	334	208	373
India (BSP)	66.0	21.8	27.5	-35.2***	4.9	324	426	411
Female Respondent	78.3	6.3	10.7	-55.2***	0.4	161	158	169
Male Respondent	54.0	31.0	39.3	-22.7***	7.9	163	268	242

Statistically significant at the 10% (*), 5%(**) or 1%(***) levels

B. Key Outcome 1 Indicator Tables

Table 66: Percentage of respondents successfully accessing health and support services as a result of referral – disaggregated by gender and by population

	Stratum	Number of observations
	EL - IP (2014)	EL (IP)
Source Country		
Nepal	27.6	467
Female Respondent	31.4	370
Male Respondent	13.4	97
Bangladesh	20.5	445
Female Respondent	16.4	257
Male Respondent	26.6	188
Destination Country		
India (NMP)	34.5	476
Female Respondent	46.0	100
Male Respondent	31.4	376
India (BSP)	58.8	413
Female Respondent	41.4	169
Male Respondent	70.9	244

Table 67: Percentage of respondents accessing services both at source and destination – disaggregated by gender and by population.

	Stratum	Number of observations
	EL - IP (2014)	EL (IP)
Source Country		
Nepal	14.4	471
Female Respondent	14.3	370
Male Respondent	14.9	101
Bangladesh	6.3	450
Female Respondent	9.1	262
Male Respondent	2.0	188
Destination Country		
India (NMP)	52.4	485
Female Respondent	46.5	101
Male Respondent	53.9	384
India (BSP)	40.3	417
Female Respondent	53.5	172
Male Respondent	31.0	245

C. Key Outcome 2 Indicator Tables

Table 68: Percentage of impact population reporting access to HIV related services – disaggregated by gender and by population

	Stratum	Number of observations
	EL - IP (2014)	EL (IP)
Source Country		
Nepal	54.5	475
Female Respondent	53.9	371
Male Respondent	56.7	104
Bangladesh	72.5	447
Female Respondent	76.6	259
Male Respondent	66.5	188
Destination Country		
India (NMP)	83.6	477
Female Respondent	71.0	100
Male Respondent	87.0	377
India (BSP)	89.6	414
Female Respondent	82.9	170
Male Respondent	94.3	244

Table 69: Percentage of respondents believing a confidential HIV/AIDS test is available – disaggregated by gender and by population

	Stratum		Regression	Number of observations	
	EL - CTRL (2014)	EL - IP (2014)	Treatment Effect (ATT)	EL (CTRL)	EL (IP)
			CTRL - EL Treatment		
Source Country					
Nepal	26.0	49.9	24.5***	420	435
Female Respondent	16.1	43.0	28.9***	323	344
Male Respondent	58.8	75.8	13.7*	97	91
Bangladesh	38.9	62.8	27.7***	311	438
Female Respondent	25.0	61.3	35.9***	156	254
Male Respondent	52.9	65.1	17.3***	155	184
Destination Country					
India (NMP)	62.4	88.3	31.3***	229	445
Female Respondent	68.7	83.3	14.4	67	90
Male Respondent	59.9	89.6	35.1***	162	355
India (BSP)	69.1	84.8	14.9***	217	368
Female Respondent	71.8	87.4	26.4***	39	143
Male Respondent	68.5	83.1	18.2***	178	225

Statistically significant at the 10% (*), 5%(**) or 1%(***) levels

Table 70: Percentage of respondents reporting a supportive migration environment – disaggregated by gender and by population.

	Stratum		Regression Treatment Effect (ATT)	Number of observations	
	EL - CTRL (2014)	EL - IP (2014)	CTRL - EL Treatment	EL (CTRL)	EL (IP)
Source Country					
Nepal	3.1	8.4	3.1	448	466
Female Respondent	2.9	8.9	3.7	348	370
Male Respondent	4.0	6.3	0.5	100	96
Bangladesh	5.2	8.6	5.6***	443	444
Female Respondent	3.9	10.9	8.5***	229	256
Male Respondent	6.5	5.3	1.4	214	188
Destination Country					
India (NMP)	2.9	3.2	1.9	417	473
Female Respondent	1.4	2.0	-2.0	209	100
Male Respondent	4.3	3.5	2.5**	208	373
India (BSP)	0.0	1.2	1.2*	426	411
Female Respondent	0.0	1.2	1.2	158	169
Male Respondent	0.0	1.2	1.0	268	242

Statistically significant at the 10% (*) , 5%(**) or 1%(***) levels

Table 71: Percentage of respondents reporting a supportive HIV and AIDs related environment (of persons knowing an HIV positive person)

			Regression	Number of observations	
	EL - CTRL (2014)	EL - IP (2014)	Treatment Effect (ATT)	EL (CTRL)	EL (IP)
Source Country					
Nepal	60.3	54.7	-19.2***	73	276
Female Respondent	61.8	54.5	-20.9***	34	209
Male Respondent	59.0	55.2	-15.4**	39	67
Bangladesh	57.6	61.4	-1.5	33	57
Female Respondent	N/A	N/A	N/A	27	27
Male Respondent	N/A	N/A	N/A	6	30
Destination Country					
India (NMP)	N/A	90.7	N/A	12	54
Female Respondent	N/A	N/A	N/A	9	24
Male Respondent	N/A	96.7	N/A	3	30
India (BSP)	N/A	95.5	N/A	9	44
Female Respondent	N/A	N/A	N/A	3	24
Male Respondent	N/A	N/A	N/A	6	20

Statistically significant at the 10% (*), 5%(**) or 1%(***) levels

D. HIV and AIDS Knowledge Tables

Table 72: HIV and AIDS knowledge (prompted) - source country

	Nepal		Bangladesh	
	EL - CTRL (2014)	EL - IP (2014)	EL - CTRL (2014)	EL - IP (2014)
Correctly held Knowledge (when prompted) (% of respondents to respond "Yes"):				
Believe a person can get HIV and AIDS by getting injections with a needle used by an HIV and AIDS infected person	100.0	98.6	97.6	99.2
Believe a person can get HIV and AIDS from an infected blood transfusion	100.0	98.2	99.7	99.5
Believe a person can get HIV and AIDS by having sex with an infected person without a condom	99.7	97.4	98.3	99.7
Believe a pregnant woman infected with HIV and AIDS transmit the virus to her unborn child	98.0	92.4	93.7	93.5
Believe that a healthy-looking person can also transmit HIV and AIDS	88.8	90.5	81.3	84.5
HIV Aids can be prevented	83.1	87.0	70.9	83.9
Believe an infected mother can infect her child with HIV and AIDS through breast feeding	78.2	79.9	93.5	94.2
Believe people protect themselves from HIV and AIDS by limiting sexual partners or having only 1 sexual partner	86.3	78.3	69.1	56.3
Believe people protect themselves from HIV and AIDS by having one uninfected faithful sex partner	86.6	75.1	68.0	63.2
Know a person infected with HIV and AIDS?	17.8	68.1	10.7	15.6
Know a person who has died of HIV and AIDS	14.5	66.8	14.4	28.9
Believe a pregnant women with HIV and AIDS can prevent mother to child transmission by taking treatment during her pregnancy	47.1	65.8	68.5	77.6
Believe people protect themselves from HIV and AIDS by abstaining from sexual intercourse	76.5	54.7	71.8	65.6
Incorrectly held knowledge (when prompted) (% of respondents to respond "Yes"):				
Believe a person can get HIV and AIDS from a mosquito bite	78.2	45.0	84.8	36.4
Believe a person can get HIV and AIDS via the saliva or cough of an infected person	41.5	19.6	75.9	31.7
Believe there medicine that can cure an HIV and AIDS patient	28.7	40.0	48.0	56.8
Believe a person can get HIV and AIDS by sharing a meal with someone with HIV or AIDS	18.8	6.2	73.8	28.0
Believe a person get HIV and AIDS by using the clothes or same dishes as an infected person	11.7	5.4	65.5	25.4
Believe a person can get HIV and AIDS through hugging/touching/fondling with an HIV/AIDS infected person	4.3	3.5	47.5	18.1
Believe a person can get HIV and AIDS through supernatural means	0.5	2.6	19.1	9.6
<i>n*</i>	210	365	171	331

* The lowest sample size (n) is reported. Due to missing, refuse, and don't know responses the sample size across indicators is not identical.

Table 73: HIV and AIDS knowledge (prompted) - - destination country

	India NMP		India BSP	
	EL - CTRL (2014)	EL - IP (2014)	EL - CTRL (2014)	EL - IP (2014)
Correctly held Knowledge (when prompted) (% of respondents to respond "Yes"):				
Believe a person can get HIV and AIDS from an infected blood transfusion	98.6	98.4	98.1	98.9
Believe a person can get HIV and AIDS by having sex with an infected person without a condom	97.6	97.9	98.5	97.2
Believe a person can get HIV and AIDS by getting injections with a needle used by an HIV and AIDS infected person	97.7	96.8	96.7	97.8
Believe a pregnant women with HIV and AIDS can prevent mother to child transmission by taking treatment during her pregnancy	87.8	89.2	81.7	94.2
Believe a pregnant woman infected with HIV and AIDS transmit the virus to her unborn child	93.1	86.4	91.2	93.7
Believe that a healthy-looking person can also transmit HIV and AIDS	82.8	77.7	80.0	74.4
Believe an infected mother can infect her child with HIV and AIDS through breast feeding	78.3	68.0	87.0	86.7
Believe people protect themselves from HIV and AIDS by having one uninfected faithful sex partner	63.6	64.8	83.3	64.4
HIV Aids can be prevented	68.6	58.1	45.5	62.2
Believe people protect themselves from HIV and AIDS by limiting sexual partners or having only 1 sexual partner	57.6	53.7	54.3	36.4
Believe people protect themselves from HIV and AIDS by abstaining from sexual intercourse	45.6	41.9	27.9	27.0
Know a person who has died of HIV and AIDS	5.5	13.7	3.9	11.4
Know a person infected with HIV and AIDS?	5.6	12.8	4.4	12.3
Incorrectly held knowledge (when prompted) (% of respondents to respond "Yes"):				
Believe a person can get HIV and AIDS from a mosquito bite	26.6	12.9	22.7	11.3
Believe there medicine that can cure an HIV and AIDS patient	18.2	13.6	13.0	22.4
Believe a person can get HIV and AIDS through supernatural means	2.1	5.0	6.5	1.8
Believe a person can get HIV and AIDS via the saliva or cough of an infected person	1.9	1.4	1.9	1.7
Believe a person get HIV and AIDS by using the clothes or same dishes as an infected person	1.4	1.8	2.4	2.8
Believe a person can get HIV and AIDS by sharing a meal with someone with HIV or AIDS	1.4	0.9	1.4	0.5
Believe a person can get HIV and AIDS through hugging/touching/fondling with an HIV/AIDS infected person	0.9	1.4	1.9	1.6
<i>n*</i>	131	376	104	315

* The lowest sample size (n) is reported. Due to missing, refuse, and don't know responses the sample size across indicators is not identical.

E. EMPHASIS Log-frame and mapped key indicators

The log-frame below and associated indicators only contains those which are addressed by the end-line survey activities.

Table 74: EMPHASIS Log-frame and mapped key indicators

Log-Frame	Associated Indicator(s)
<p>Overall Portfolio Goal: Contribute to reduce vulnerability of mobile populations (particularly women) to HIV infection across selected cross border regions within India, Bangladesh and Nepal.</p>	Percentage of impact population who can identify at least two major modes of transmission of HIV – disaggregated by gender and by population
	Percentage of impact population who reject at least 2 major misconceptions about HIV transmission – disaggregated by gender and by population
	Percentage of women who can discuss about HIV with their spouse and partners – disaggregated by population
	Percentage of impact population reporting having used a condom with non-regular partner on the last occasion of having sex – disaggregated by gender and by population
	Percentage of migrants currently in India who are provided accident compensation from their employer
	Percentage of migrants currently in India who are provided health care benefits from their employer
	Percentage of migrants currently in India who receive same type of overtime pay as their Indian counterparts?
	Percentage of migrants currently in India who have ID/document/papers which are held by Employer
<p>Outcome 1: By the end of the grant, an effective and integrated cross border model of HIV prevention, care, treatment and support will be developed working with and impacting on an individual of at least 141 000 direct beneficiaries consisting of mobile populations and their families and target groups at source, transit and destination locations who are vulnerable to acquiring and spreading HIV and Aids.</p>	Percentage of participating impact population successfully accessing health and support services as a result of referral – disaggregated by gender and by population
	Percentage of participating impact population accessing services both at source and destination – disaggregated by gender and by population.
<p>Outcome 2: By the end of the grant, the capacity of at least 30 partners organizations (including regional authorities, government agencies, border police, customs officials, research institutions, NGO, CBO and key stakeholders) engaged in the project portfolio will be significantly enhanced by 25-30% from the baseline data in order to deliver improved and integrated services to mobile populations vulnerable to HIV.</p>	Percentage of participating impact population reporting access to HIV related services – disaggregated by gender and by population
	Percentage of participating impact population believing a confidential HIV/AIDS test is available – disaggregated by gender and by population
	Percentage of participating impact population reporting a supportive migration environment – disaggregated by gender and by population.
	Percentage of participating impact population reporting a supportive HIV and AIDs related environment

7. Appendices

All appendixes are found in the accompanying appendix file. Appendixes included in this document are listed below.

Appendix A: Signed Terms of Reference

Appendix B: Quantitative Tool (Respondent Survey)

Appendix C: Key Project Indicators

Appendix D: Training Schedule

Appendix E: Enumerator Manual

Appendix F: Supervisor Manual

Appendix G: Bangladesh Sample Weighting Information

Appendix H: Propensity Score Matching Theoretical Overview

Appendix I: Documents Available Upon Request

- Raw data files (.csv)
 - Raw data files (.sav)
 - Cleaned and merged data file (.sav)
 - Cleaning syntax (.sps)
 - Analysis syntax (.sps)
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Cover photo: EMPHASIS beneficiary at destination ©Chris Martin