

RESEARCH ARTICLE

Consistent Condom Use during Casual Sex among Long-Truck Drivers in Togo

Issifou Yaya^{1,2}, Dadja Essoya Landoh³, Bayaki Saka^{4*}, Kokou Vignikin², Abdoul-Samadou Aboubakari⁵, Kouamé Mathias N'dri¹, Kodjo Dodji Gbetoglo², Atavi-Mensah Edorh², Komla Ahlegnan², Holali Comlan Yenkey², Ayawavi Sitsopé Toudeka², Palokinam Pitché^{4,6}

1 Laboratoire de Santé Publique (EA 3279), Faculté de Médecine Campus Timone, Aix-Marseille Université, Marseille, France, **2** Unité de Recherche Démographique (URD) Université de Lomé, Lomé, Togo, **3** Division de l'épidémiologie, Ministère de la santé du Togo, Lomé, Togo, **4** Service de dermatologie et IST, CHU Sylvanus Olympio, Université de Lomé, Lomé, Togo, **5** Service de gynéco-obstétrique, Centre Hospitalier Universitaire de Kara, Kara, Togo, **6** Conseil National de Lutte contre les IST/VIH/Sida, Lomé, Togo

* barthelemysaka@yahoo.fr



Abstract

Background

In 2008, the proportion of truck drivers who were not systematically protected during sex was 63% with casual partners and 60% with sex workers. Despite the high level of knowledge on HIV/AIDS and the growing awareness of the existence of the risk of HIV infection, condom use always encounters resistance among truck drivers in Togo. We sought to document the factors associated with condom use during casual sex among trucks' drivers in Togo.

Methods

This was an analytical cross-sectional study conducted in 2010 and targeted truckers at truck station on the two main roads of Togo, Lomé-Cinkassé and Kodjoviakopé-Sanvee Condji.

Results

In this study, 1,782 trucks' drivers and their helpers were interviewed. All were men, and their mean age was 28.8 ± 8.8 years. Trucks' drivers were doing an average of 3 stops on their journeys and 1,229 (69%) of them had at least two years of experience in the work. Of the 1,782 trucks' drivers, only 620 (34.8%) had consistently used condoms during casual sex in the last three months. In multivariate analysis, predictors were: education level (primary schooling: OR = 1.54; $p = 0.002$; Secondary schooling and higher OR = 1.38; $p = 0.036$), good knowledge of ways of HIV transmission (OR = 1.53; $p = 0.000$), tested for HIV (OR = 1.67, $p = 0.000$), duration in the profession (2–5 years: OR = 1.43, $p = 0.008$; more than 5 years: OR = 1.38, $p = 0.027$), and HIV risk's perception (OR = 1.44, $p = 0.000$).

Conclusion

These results highlight factors associated with consistent condom use during casual sex by truck drivers in Togo. This is a key population group at high risk of HIV transmission

OPEN ACCESS

Citation: Yaya I, Landoh DE, Saka B, Vignikin K, Aboubakari A-S, N'dri KM, et al. (2016) Consistent Condom Use during Casual Sex among Long-Truck Drivers in Togo. PLoS ONE 11(4): e0153264. doi:10.1371/journal.pone.0153264

Editor: Deeksha Pandey, Kasturba Medical College Manipal, Manipal University, INDIA

Received: May 20, 2015

Accepted: March 25, 2016

Published: April 12, 2016

Copyright: © 2016 Yaya et al. This is an open access article distributed under the terms of the [Creative Commons Attribution License](https://creativecommons.org/licenses/by/4.0/), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

Data Availability Statement: The data underlying the results described in our manuscript can be found in the body of the manuscript.

Funding: The authors have no support or funding to report.

Competing Interests: The authors have declared that no competing interests exist.

toward which the national HIV/AIDS control program should strengthen the HIV prevention strategies.

Background

HIV transmission occurs mainly sexually during unprotected sex with an infected individual. The prevalence of HIV infection is particularly high in the vicinity of the main roads and in areas with high rates of displaced persons related to natural disasters and conflicts [1]. For example, the prevalence of HIV among truckers is by location estimated at more than ten times that of the general population [2]. It is well known that truckers have an important role in the spread of sexually transmitted infection and HIV in several countries in the world including in Africa [3–4].

Truck drivers are known as group which is sexually active and their work place offers great opportunities for high risk behaviors for HIV infection. Some studies have reported a high prevalence of sexual risk behavior in this group including sexual multiple partners and low rates of consistent condom use [3–8]. In fact, in North India, recent findings have shown that almost 30% of drivers and 50% of helpers didn't use condom when having sexual contact with commercial sex workers [7], exposing themselves to HIV infection. In 2012, a study conducted on the main roads in Uganda reported that only 21% of truck drivers have consistently used condoms during sexual intercourse during their journeys [5]. In another study conducted in Nigeria, nearly three-quarters (74.3%) of the truck drivers had multiple irregular or occasional sexual partners [6]. This sexual behavior, having multiple sexual partners or casual sex, could facilitate more the HIV spread in the general population.

In Togo, no nationwide HIV prevalence study has been conducted among transport workers; however, a behavioral study conducted in 2008 has shown, that the prevalence of high-risk sexual behaviors was high among this key population [9]. In 2008, the proportion of truckers who have used consistently condom during sex with casual partners was 63% and 60% with sex workers. Despite the high level of knowledge on HIV/AIDS and the growing awareness of the existence of the risk of infection, condom use always knows resistance in truckers in Togo [9]. In order to have reliable, contextualized and updated information on condom use for planning interventions against HIV/AIDS among truckers, it seemed appropriate to document the prevalence and factors associated with consistent condom use in casual sex in this Most at Risk population (MARPs) in Togo.

Method

Study population

This study targeted long-truck drivers, aged more than 15 years and operating in Togo. Long-distance truck drivers were defined as truckers traveling to destinations away from their point of origin and who crossed Togo's borders. The survey was undertaken at eleven transshipment locations along the two main routes of the country Lomé-Cinkassé and Kadjoviakopé-Sanvee Condji.

Data sources

This was a cross-sectional behavioral and nationwide survey conducted in 2010 among long-distance truckers in Togo on the two main migratory roads, Lomé-Cinkassé and Kadjoviakopé-Sanvee Condji as part of the STI/HIV/AIDS prevention Project on Migratory Roads of

West Africa (PSAMAO = Prévention du SIDA sur les Axes Migratoires de l'Afrique de l'Ouest). These two roads were chosen because they are the two main roads of Togo; the first road Lomé-Cinkassé traversing the country from South to North and the second road Kodjovia-kopé-Sanvee Condji going from West to East of Togo.

Data collection

The study was carried out using an established protocol validated by the national reference group for monitoring and evaluation and research of the Togolese National AIDS and sexually transmitted infections control Council (CNLS-IST). In total six supervisors and forty one interviewers were recruited and trained for five days on the behavioral aspect and data collection process.

Data were collected from February 13 to 19 at 11 truck stands or goods load place along the two main roads. In total, 1,782 truckers were interviewed. Behavioral data, including information about demographics, work, sexual partners, and condom use, were collected through face-to-face interviews. Each individual has been questioned about his condoms use during casual sex in the last three months as well as the status of their HIV testing before the survey.

Sex was considered as casual in this study if the trucker had sex with partners other than his wife for married truckers or other than the regular partner (stable sexual partner) for singles, divorced or widowed truckers. It was coded "1" if the trucker had consistently used condom and "0" otherwise.

Consistent condom use was defined as "using condoms during each sexual intercourse". Condom use was considered as consistent when trucker reported using condoms at each sexual intercourse during the last three months before the survey.

The number of truck stops was considered as the number of times the trucker stopped during his round trip. HIV risk perception or self-perception of HIV risk is defined as the level of awareness of the participant towards HIV infection risk and was assessed using the following question: "according to your sexual behavior and your life's style, are you at risk to be infected by the HIV?"

Ethical consideration

The entire study protocol was approved by the board committee of the Bioethics Committee of the Ministry of Health and the National council for HIV/AIDS Control. The participants gave their written informed consent after the verbal explanation of the aim of the study. For participants under 18 years old (minors) who were enrolled in this study, a written informed consent form was signed by their parents or guardians, the truckers. For each of the participant included in the survey, the objectives, benefits to participate in the survey and progress of the investigation were clearly stated as well as their right to interrupt the interview without justification. Participants were given information on safe sex practices and HIV prevention as well as information on care facilities available in the area. Data were recorded in an anonymously linked manner using numerically coded cards.

Data analysis

The collected data were entered by trained officers using EPI-DATA 3.1 software. Analysis was performed using SPSS Inc. version 17.0 software (SPSS Inc., Chicago, IL, USA). In the univariate analysis, for continuous variables, means and standard deviation were calculated while for categorical variables we calculated proportions. Our main outcome variable was consistent condoms use during the last three months compare to non consistent condoms use. The chi-square test or Fisher's exact test were used when appropriate in bivariate analysis. Multivariate

backwards stepwise logistic regression analysis was performed to identify independent risk factors for the dichotomous outcome consistent condoms use and non consistent condoms use. The variables significant during bivariate analysis at a p-value less than 0.05 and uncorrelated were then selected in an initial model of logistic regression to assess their contribution to the consistent use of condoms among truckers by estimating the adjusted odds ratios (ORs) and their 95% confidence intervals (CI).

Results

At the 11 truck stands targeted, 1782 truckers were interviewed. The mean age of the respondents was 28.8 ± 8.8 years, ranging from 15 to 73 years. Of the 1,782 truckers interviewed, 1,357 (76.1%) were less than 35 years old. They perform on average 3 stops on a taken road during their journey. One thousand and twenty-five (57.5%) of the 1782 truck drivers were not in couple, 855 (48%) of them had at least secondary school level and 1,229 (69%) of them had at least two years of experience in the work. In total, for 1,283 (72%) truckers it has taken them less than two weeks for a round trip. Of the 1,782 truck drivers, 860 (48.3%) were aware that they were at risk of contracting HIV while 845 (47.4%) had already done their HIV testing ([Table 1](#)).

Of the 1,782 truckers interviewed, 1,247 (70%) had multiple sexual partners, and 620 (34.8%) of them had consistently used condoms during casual sex during the last three months ([Table 1](#)).

In the bivariate analysis, the consistent condom use was associated with the age of the trucker ($p < 0.001$), the marital status ($p = 0.025$), the level of education ($p = 0.002$), the knowledge of the ways of HIV transmission ($p < 0.001$), the HIV testing ($p < 0.001$), the duration in the profession ($p = 0.002$), duration of stay at destination ($p = 0.048$) and the HIV risk's perception ($p < 0.001$) ([Table 1](#)).

In multivariate analysis, five (05) factors remained associated with consistent condom use during casual sex among truckers. In fact educated truck drivers (primary OR = 1.56, $p = 0.002$; secondary and over OR = 1.34, $p = 0.036$), those with a good knowledge of ways of HIV transmission (OR = 1.53, $p = 0.000$), those who were tested for HIV (OR = 1.67, $p = 0.000$), those with at least two years of duration in the profession (2 to 5 years: OR = 1.43, $p = 0.008$; more than 5 years: OR = 1.38, $p = 0.027$) and those with a good perception of risk of HIV infection (OR = 1.44, $p = 0.000$) were more likely to use condoms consistently during casual sex ([Table 2](#)).

Discussion

The results of this study identified five factors that were associated with consistent use of condoms among the truckers when having casual sex in the last three months. Our results are similar to those of other studies conducted in some developing countries on similar population groups [[2-4](#), [6-8](#), [10-12](#)].

In our study, only 34.8% of surveyed drivers had consistently used a condom during casual sex in the last three months. Although this rate always low, a tendency to increase of the consistent use of condom in this group targeted by PSAMAO's Project is noted since 2008. In 2008, a behavioral study conducted in a similar group reported that the rate of consistent condom use was 30.1%. The rate in the current study is close to that of 21% reported in Uganda on two main roads of the country [[5](#)], and 19.1% reported in India [[11](#)]. This low rate of condom use among truck drivers could partly explains the very high prevalence of HIV infection in this population group compared to the general population [[2](#)]. Contrary to these studies, a study

Table 1. Sociodemographic and work related characteristics of truck drivers in Togo, 2010.

Characteristics	Number of truckers N (%)	Consistent condom use n (%)	OR	p-value
Age				<0.001
Less than 25 years	660 (37.0)	211 (32.0)	1	
25–34 years	697 (39.1)	287 (41.2)	1.49 [1.19 ; 1.86]	
More than 35 years	425 (23.9)	122 (28.7)	0.86 [0.66 ; 1.12]	
Marital status				0.025
Single / Divorced / Widowed	1025 (57.5)	353 (34.4)	1	
Married monogamous	594 (33.3)	224 (37.7)	1.15 [0.93 ; 1.42]	
Married polygamous	163 (9.2)	43 (26.4)	0.68 [0.47 ; 0.99]	
Education				0.002
None	374 (21.0)	103 (27.5)	1	
Primary	553 (31.0)	213 (38.5)	1.65 [1.24 ; 2.19]	
Secondary and higher	855 (48.0)	304 (35.6)	1.45 [1.11 ; 1.89]	
Standard of living				0.355
Low	651 (36.5)	228 (35.0)	1	
Medium	733 (41.1)	265 (36.2)	1.05 [0.84 ; 1.31]	
High	398 (22.3)	127 (31.9)	0.87 [0.67 ; 1.13]	
Level of knowledge				<0.001
Partial	646 (36.3)	186 (28.8)	1	
Complete	1136 (63.7)	434 (38.2)	1.53 [1.24 ; 1.88]	
Level of exposure to information sources				0.076
Less exposed	1033 (58.0)	377 (36.5)	1	
More exposed	749 (42.0)	243 (32.4)	0.84 [0.69 ; 1.02]	
Tested for HIV				<0.001
Yes	845 (47.4)	351 (41.5)	1.76 [1.45 ; 2.14]	
No	937 (52.6)	269 (28.7)	1	
Duration in the driver profession				0.002
Less than 2 years	553 (31.0)	161 (29.1)	1	
2 to 5 years	519 (29.1)	203 (39.1)	1.56 [1.21 ; 2.01]	
Over 5 years	710 (39.9)	256 (36.1)	1.37 [1.08 ; 1.74]	
Frequency of the road trips				0.537
Every 2 weeks	1223 (68.6)	420 (34.3)	1	
Each month	501 (28.1)	176 (35.1)	1.04 [0.84 ; 1.29]	
Every 3 months	58 (3.3)	24 (41.4)	1.35 [0.79 ; 2.31]	
Duration of round trip				0.132
Less than 2 weeks	1283 (72.0)	460 (35.9)	1	
More than 2 weeks	499 (28.0)	160 (32.1)	0.84 [0.67 ; 1.05]	
Length of stay at destination				0.048
Within a week	1579 (88.6)	562 (35.6)	1	
Over one week	203 (11.4)	58 (28.6)	0.72 [0.52 ; 0.99]	
Number of stops during the trip				0.105
0 or 1	116 (6.5)	42 (36.2)	1	
2 or 3	1261 (70.8)	420 (33.3)	0.88 [0.59 ; 1.31]	
4 or more	405 (22.7)	158 (39.0)	1.13 [0.74 ; 1.73]	
Risk perception of HIV infection				<0.001
Yes	860 (48.3)	342 (39.8)	1.53 [1.26 ; 1.86]	
No	922 (51.7)	278 (30.2)	1	
Consistent condom use				

(Continued)

Table 1. (Continued)

Characteristics	Number of truckers N (%)	Consistent condom use n (%)	OR	p-value
Yes	620 (34.8)	-	-	-
No	1162 (65.2)	-	-	-

doi:10.1371/journal.pone.0153264.t001

conducted at a parking site at Kenya and Uganda border reported a satisfactory rate of 70% of condom use among truck drivers [13].

Concerning the identified factors, it appears that, first, the truck drivers with a high level of education have consistently used condom during casual sex in the last three months. Our results are similar to those found by a Tanzanian study where truck drivers with a high level of education had a strong propensity to use condoms during casual sex [10]. The explanation we propose is that education promotes an understanding of prevention messages driven by the education and information on intervention strategies. Also, the high level of knowledge of the

Table 2. Multiple logistic regression of factors associated with consistent use of condom among truck drivers in Togo, 2010 (N = 1782).

Characteristics	aOR	95% CI for aOR	p-value
Age			
Less than 25 years	Ref	-	-
25–34 years	1.25	[0.96 ; 1.62]	0.094
More than 35 years	0.78	[0.54 ; 1.14]	0.198
Marital status			
Single / Divorced / Widowed	Ref	-	-
Married monogamous	1.1	[0.85 ; 1.44]	0.468
Married polygamous	0.77	[0.49 ; 1.22]	0.266
Education level			
None	Ref	-	-
Primary school	1.56	[1.18 ; 2.11]	0.002
Secondary and higher	1.34	[1.02 ; 1.77]	0.036
Level of knowledge of HIV/AIDS			
Partial	Ref	-	-
Complete	1.53	[1.23 ; 1.89]	<0.001
Tested for HIV			
No	Ref	-	-
Yes	1.67	[1.36 ; 2.05]	<0.001
Duration in the driver profession			
Less than 2 years	Ref	-	-
2 to 5 years	1.43	[1.10 ; 1.87]	0.008
Over 5 years	1.38	[1.04 ; 1.84]	0.027
Length of stay at destination			
Within a week	Ref	-	-
Over one week	0.74	[0.53 ; 1.04]	0.081
HIV risk perception			
No	Ref	-	-
Yes	1.44	[1.17 ; 1.76]	<0.001

Pseudo-R² of the regression model = 10.3%

doi:10.1371/journal.pone.0153264.t002

routes of transmission of HIV infection has a positive influence on consistent condom use among truck drivers. Our results confirm those reported in Bangladesh [3] and in India [11] which stated that the truck driver, who had heard of HIV/AIDS, with a high level of knowledge about preventive practices of HIV infection were more likely to use condoms with sexual partners.

It appears that the level of exposure to sources of information remains a very important factor for acquiring new knowledge related to socio-cultural, economic, and political or health phenomena or problems, leading to better prevention strategies development.

Furthermore, our study found that truck drivers who were tested for HIV, and are aware of their HIV status were about 1.7 times more likely to use condoms consistently. Conducting HIV testing with pre and post-test counseling is considered as effective means of preventing HIV infection. Other authors in Togo and in other developing countries have demonstrated the effectiveness of the voluntary counseling and anonymous test in reducing sexual risk behaviors [14–16]. It is therefore important to create at the trucks stands on the roads, counseling centers and HIV testing for truck drivers.

Likewise in our study, other authors have noted that the truck drivers who had a good perception of risk of HIV infection were more likely to protect themselves by using consistently condom during casual sex compare to those who had poor perception of HIV infection risk [10, 12]. The perception of risk of HIV infection leads individuals to adopt safe sexual behavior. Lastly, for the duration in the profession our results are similar to those of Gibney *et al.* in Bangladesh [3]; and Dude *et al.* in India [11] who reported that the number of years of working in transport sector, is a protective factor against the exposure risk to STIs, including HIV.

Conclusion

This study documents factors associated with consistent condom use during casual sex among truck drivers in Togo. Truckers remain a risky group in which the prevalence of consistent condom use during casual sex is low. The level of education, good knowledge of ways of HIV transmission, testing for HIV, duration in the profession, and HIV risk's perception are the main predictors of consistent condom use during casual sex. These data demonstrated that there are needs for HIV/AIDS control program to strengthen HIV prevention interventions among this Most at Risk population of HIV transmission.

Acknowledgments

We thank the Ministry of Health of Togo for permitting this study to be conducted and the truck drivers associations for their cooperation in data collection. We thank all the truck drivers who accepted to participate to this study.

Author Contributions

Conceived and designed the experiments: IY. Performed the experiments: IY DEL BS. Analyzed the data: IY DEL BS KV KDG PP. Contributed reagents/materials/analysis tools: ASA KMN AME KA HCY AST. Wrote the paper: IY DEL BS ASA KMN AME KA HCY AST PP.

References

1. Coalition Interagence sida et développement. Migration internationale et VIH/sida. Novembre 2004, 27 April 2015. Available from: http://www.icad-cisd.com/pdf/f_Migration_FINAL.pdf.
2. Ramjee G, Gouws E. Prevalence of HIV among truck drivers visiting sex workers in KwaZulu-Natal, South Africa. *Sex Transm Dis.* 2002; 29(1):44–9. Epub 2002/01/05. PMID: [11773878](https://pubmed.ncbi.nlm.nih.gov/11773878/).

3. Gibney L, Saquib N, Metzger J. Behavioral risk factors for STD/HIV transmission in Bangladesh's trucking industry. *Soc Sci Med*. 2003; 56(7):1411–24. Epub 2003/03/05. doi: S0277953602001387 [pii]. PMID: [12614693](#).
4. Atilola GO, Akpa OM, Komolafe IO. HIV/AIDS and the long-distance truck drivers in south-west Nigeria: a cross-sectional survey on the knowledge, attitude, risk behaviour and beliefs of truckers. *J Infect Public Health*. 2010; 3(4):166–78. Epub 2010/12/04. doi: S1876-0341(10)00073-0 [pii] doi: [10.1016/j.jiph.2010.08.002](#) PMID: [21126721](#).
5. Matovu JK, Ssebadduka BN. Sexual risk behaviours, condom use and sexually transmitted infection treatment-seeking behaviours among female sex workers and truck drivers in Uganda. *Int J STD AIDS*. 2012; 23(4):267–73. Epub 2012/05/15. doi: 23/4/267 [pii] doi: [10.1258/ijsa.2011.011313](#) PMID: [22581951](#).
6. Ekanem EE, Afolabi BM, Nuga AO, Adebajo SB. Sexual behaviour, HIV-related knowledge and condom use by intra-city commercial bus drivers and motor park attendants in Lagos, Nigeria. *Afr J Reprod Health*. 2005; 9(1):78–87. PMID: [16104657](#)
7. Sawal N, Hans GD, Verma G. Sexual practices, myths and misconceptions among long distance truck drivers in North India. *QJM*. 2015. Epub 2015/11/22. doi: hcv205 [pii] doi: [10.1093/qjmed/hcv205](#) PMID: [26590208](#).
8. Kiderlen TR, Conteh M, Roll S, Seeling S, Weinmann S. Cross-sectional study assessing HIV-related knowledge, attitudes and behavior in the Namibian truck transport sector: Readjusting HIV prevention programs in the workplace. *J Infect Public Health*. 2015; 8(4):346–54. Epub 2015/03/26. doi: S1876-0341(15)00038-6 [pii] doi: [10.1016/j.jiph.2015.02.001](#) PMID: [25805432](#).
9. Unité de Recherche Démographique (URD). Analyse comparative des connaissances, attitudes et pratiques sur le VIH/SIDA entre 2005 et 2008 chez les routiers au Togo. Lomé, Togo: URD, 2008.
10. Laukamm-Josten U, Mwizarubi BK, Outwater A, Mwajijonga CL, Valadez JJ, Nyamwaya D, et al. Preventing HIV infection through peer education and condom promotion among truck drivers and their sexual partners in Tanzania, 1990–1993. *AIDS Care*. 2000; 12(1):27–40. Epub 2000/03/15. doi: [10.1080/09540120047440](#) JG3DFXQNUKRKQDWV [pii]. PMID: [10716015](#).
11. Dude A, Oruganti G, Kumar V, Mayer KH, Yeldandi V, Schneider JA. HIV Infection, Genital Symptoms and Sexual Risk Behavior among Indian Truck Drivers from a Large Transportation Company in South India. *J Glob Infect Dis*. 2009; 1(1):21–8. Epub 2009/01/01. doi: [10.4103/0974-777X.52977](#) PMID: [20300382](#); PubMed Central PMCID: PMC2840939.
12. Arulogun OS, Oladepo O, Titiloye MA. Perception of Self Vulnerability to HIV Infection among Long Distance Truck Drivers in Ibadan, Nigeria. *J Basic Appl Sci Res*. 2011; 1:1380–5.
13. Morris CN, Ferguson AG. Estimation of the sexual transmission of HIV in Kenya and Uganda on the trans-Africa highway: the continuing role for prevention in high risk groups. *Sex Transm Infect*. 2006; 82(5):368–71. Epub 2006/07/21. doi: sti.2006.020933 [pii] doi: [10.1136/sti.2006.020933](#) PMID: [16854995](#); PubMed Central PMCID: PMC2563851.
14. Ntozi JP, Najjumba IM, Ahimbisibwe F, Ayiga N, Odwee J. Has the HIV/AIDS epidemic changed sexual behaviour of high risk groups in Uganda? *Afr Health Sci*. 2003; 3(3):107–16. Epub 2003/12/17. PMID: [14676715](#); PubMed Central PMCID: PMC2141609.
15. Lau JT, Tsui HY. Voluntary counselling and testing plus information distribution to reduce HIV-related risk behaviours among Hong Kong male cross-border truck drivers: a randomised controlled study. *Hong Kong Med J*. 2012; 18 Suppl 3:39–41. Epub 2012/08/17. PMID: [22865223](#).
16. Febon A. Etude d'impact de campagnes auprès des routiers sur les principaux axes migratoires du Togo. Lomé, Togo: PSI—TOGO, 2006.