Original Article

Knowledge, Attitude and Practice of Postnatal Home Visits among Healthcare Workers in IDP Camps and Host Community Clinics in Jere and Maiduguri, Nigeria

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ABSTRACT

Background: Postnatal Home Visit (PHV) is advocated as a stop-gap measure to overcome the challenges of low postnatal visits in developing countries, however, it is not yet a routine practice in Nigeria. ***Objective:*** The objective of the study was to determine the knowledge, attitude, and practice of PHV among Health care workers (HCWs). **Methodology:** Self-administered questionnaires were instituted to 100 HCWs from 20 selected IDP camps and Host Community clinics in Jere and Maiduguri metropolitan council, Borno State on 20th and 27th, May 2019. The HCWs were attending a five-day workshop on child spacing counseling organized by the Society of Gynaecologists and Obstetricians of Nigeria-Northeast (SOGON-NE) sector. They were asked about their knowledge, attitude, and practice of PHV. Fischer exact test was used to test for association with a P value of <0.05 set for statistical significance. **Results:** The mean ±SD age of the HCWs was 26.45±8.23 years, and 44% of them were Nurses/midwives while 30% were Community health extensive workers (CHEWs). The majority (78%) of the respondents were aware of PHV, 65% had a positive attitude and were willing to offer the services but only 48% had offered PHV in the last 12 months. The health mobilizers and CHEW showed more willingness to offer PHV compared to the Nurses/midwife and Hospital assistants (Fischer exact = 17.17, P=0,001). About 62% of the HCWs needed more training to offer PHV efficiently. **Conclusion:** HCWs in the IDP camps and Host Community clinics have good knowledge and a positive attitude toward the practice of PHV but they needed the training to offer the services effectively.
Key words: Attitude, Health Care Workers, Host Communities, IDP Camps, Knowledge, Postnatal Home Visit

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ABBREVIATIONS:
CHEW = Community Health Extensive Worker; **IDP =** Internally Displaced Person; **HCW =** Health Care Worker
NGO = Non-Governmental Organisation; **NHIS** = National Health Insurance Scheme; **PHV =** Postnatal Home Visit
SOML = Saving One Million Live; **SOGON-NE** = Society of Gynaecologist and Obstetricians of Nigeria-Northeast sector**; SPHCDA** = State Primary Health Care Development Agency; **VOS** = Volunteer Obstetrician Scheme

INTRODUCTION

Postnatal care is an essential component of reproductive healthcare that is meant to ensure the well-being of the mother and her newborn. It is done during the postnatal period when the family is overburdened with the demands of caring for the newborn. The mother is faced with multitudes of physical and emotional challenges while learning to take care of her child. Most often, the mother's health takes second place, and the need for postnatal care visits is easily forgotten. [1,2]

In most patriarchal societies, husbands are responsible for financing postnatal visits, and they may be reluctant to do so if the wife appears healthy. Even in settings like the IDP camps where the health facilities are near their homes, and not much financial cost will be incurred for the visits, many mothers still default on their postnatal appointments for no plausible reason.[3]

During the Volunteer Obstetrician Scheme (VOS) program by members of the Society of Obstetricians and Gynaecologists of Nigeria – Northeast (SOGON-NE) sector in IDP camps and host communities' clinics in Northeastern Nigeria, it was observed that the postnatal care and family planning uptake were abysmally low. Studies have linked low uptake of post-natal care visits to younger maternal age, high parity, illiteracy, lack of antenatal care, home delivery, lack of knowledge of the postnatal care services, low socioeconomic status, and not knowing the importance of postnatal visits. [4-6] Even the distance covered to attend postnatal care can be a barrier.[4]

Adequate counselling during antenatal care visits and postnatal home visits is sufficient to remove almost all barriers to postnatal clinic visits. Postnatal Home Visit (PHV) offers culturally acceptable and efficient care that can fast track maternal health and neonatal survival in Nigeria.[7,8] A pilot study in Bauchi state showed that universal home visit for pregnant women was acceptable to the populace, and it led to a reduction in maternal morbidity and mortality.[9] The home visit also offers the opportunity to counsel the mother on the immunization of her child, child spacing, and healthy postnatal practices.

Given the advantages of the PHV, we seek to determine the feasibility of it being incorporated into routine care offered by Health Care Workers (HCW) in the IDP camps and host communities. The HCW being the main drivers and implementers of the program, it is necessary to assess their knowledge, attitude, and practice to address the barriers that may militate against imbibing the practice.

Like the Non-Governmental Organizations (NGOs) that successfully implemented the polio eradication program with the help of volunteer community mobilizers who mobilized caregivers in households to combat vaccine hesitancy and encourage uptake in Northern Nigeria,[10] HCW can be encouraged to take up PHV so that they counsel postpartum women on family planning and offer health modifying services in the women's home.

Some of the displaced families in the camps are headed by women, most of whom do not have the luxury of going to the family planning clinic because they are overburdened by the need to fend for their families and wards. This puts them at risk of unintended pregnancies with consequent increased morbidities and mortalities. Many of them also miss their postnatal care appointment and follow-up due to household chores. For this group of women, PHV offers a momentous opportunity to access family planning and other reproductive health services.

Implementing PHV is feasible because so many families now live in confined settlements such as IDP camps and host communities. The PHV can be used to counsel women on child spacing, and other reproductive health issues in the comfort of their homes, and the services are offered by HCWs the women are familiar with, having done their antennal care with them during the pregnancy.

The quality of care delivered by the HCW during the PHV depends on her medical knowledge and proficiency.[8,11] It is therefore essential that HCWs that are willing to offer PHV are adequately trained to enable them to offer the best quality care and counselling that will improve maternal and neonatal outcomes.

The knowledge, attitude, and practice of PHV among HCWs in the IDP camps and host communities will help in formulating policies to adapt the practice of the Nigerian healthcare policy as it is obtained in some countries. We conceived this study to explore the knowledge and attitude of healthcare workers on PHV in the IDP camps and host communities in Jere and Maiduguri Metropolitan Council areas of Borno State, Nigeria.

METHODOLOGY

Health Care Workers (HCWs) in two groups of 50 were attending a five-day workshop on child spacing counselling and service for the 'Scaling-up family planning uptake project' by the Society of Gynaecologist and Obstetricians of Nigeria-Northeast (SOGON-NE) sector with the support of Saving One Million Live (SOML) Borno State at the Conference Hall of the University of Maiduguri Teaching Hospital, Maiduguri took part in the study. Following group counseling and verbal consent from all participants. Self-administered, pretested, and validated questionnaires were distributed to 100 healthcare workers from 20 selected IDP camps and Host Community clinics in Jere and Maiduguri metropolitan council, Borno State, on 20th, May 2019, and 27th, May 2019. The questionnaires were instituted on the first day of the training along with the workshop pre-test. This was to assess their knowledge and attitude towards PHV for child spacing counselling in the IDPs and Host Community. Both open-ended and closed-ended questions were asked.

The questionnaire contained sections on the sociodemographic profile, knowledge about PHV, source of information on PHV, their attitude, and willingness to offer such service. Objectives of the PHV and the respondents' view on whether PHV will improve family planning uptake or not were enquired.

The questionnaire was pre-tested with other healthcare providers in Maiduguri, Northeastern Nigeria, that did not participate in the survey. The findings were illustrated as proportions and percentages. The data were analyzed with SPSS version 20.0 (Chicago, IL, USA) for the window statistical package. Analysis was carried out for descriptive statistics and illustrated as proportions and percentages. Fischer exact tests at a 95% confidence interval were done where appropriate to determine the association of knowledge and attitude to PHV with various characteristics of the HCW. A p-value of less than 0.05 was considered statistically significant.

Hospital assistants are secondary school or National Diploma holders who work in the clinic and are often attached to the wards and assist the doctors and the nurses in the care of patients.
Health mobilizers are volunteers recruited by the State Primary Health Care Development Agency (SPHCDA) and NGOs, they are attached to specific clinics in the IDP camps, and their function is to mobilize women to access reproductive health services and child immunization in the clinics.

RESULTS

All 100 questionnaires were returned completed and analysed. All respondents were ladies with a mean ±SD age of 26.45±8.23, and 42% belonged to the age group of 20-29 years.

Table 1: Sociodemographic Characteristics of the Health Care Workers studied.

Characteristics	Frequency	Percentage
Age in Years		
[illegible]	5	5.0
20-29	42	42.0
30-39	30	30.0
40-49	15	15.0
[illegible]	8	8.0
Total	100	100
Highest Qualification Attained		
Nurse/Midwife	45	45.0
CHEW	32	32.0
Diploma & S.S.C.E	20	20.0
Environmental Health Cert	3	3.0
Total	100	100
Cadre of respondents in the Clinic		
Nurse/Midwives	44	44.0
CHEW	30	30.0
Health mobilizers	21	21.0
Hospital Assistants	5	5.0
Total	100	100
Years in Practice		
< 5	24	24.0
5-10	48	48.0
11-15	17	17.0
15-20	8	8.0
> 20	3	3.0

Table 2: Relationship between cadre of healthcare workers and awareness, attitude, and practice of postnatal home visit

Characteristic	Yes (%)	No (%)	Total (%)
Awareness of PHV			
Nurse/Midwives	38(86.4)	6 (13.6)	44(100)
CHEW	26(86.7)	4(13.3)	30(100)
Health mobilizers	11(52.4)	10(47.6)	21(100)
Hospital Assistants	3 (60.0)	2(40.0)	5(100)
Total	78 (78.0)	22(22.0)	100(100)
	Fischer exact = 12.08, P=0.007		
Willingness to undertake PHV			
Nurse/Midwives	20(45.5)	24 (54.5)	44(100)
CHEW	25(83.3)	5(16.7)	30(100)
Health mobilizers	18 (85.7)	3(14.3)	21(100)
Hospital Assistants	2(40.0)	3(60.0)	5(100)
Total	65 (65.0)	35(35.0)	100(100)
	Fischer exact = 17.16, P=0.001		
Ever offered PHV			
Nurse/Midwives	24(54.6)	20 (45.4)	44(100)
CHEW	19(63.3)	11(36.7)	30(100)
Health mobilizers	4 (19.0)	17(81.0)	21(100)
Hospital Assistants	1(20.0)	4(80.0)	5(100)
Total	48 (48.0)	52(52.0)	100(100)
	Fischer exact = 12.20, P=0.001		

Forty-four per cent of them were Nurses/midwives, 30% were CHEWs, 21% were health mobilisers, and 5% were hospital assistants. Seventy-six (76%) had been practising as HCWs for at least five years, as shown in Table 1. Seventy-eight (78%) of the respondents were aware of Postnatal Home Visit (PHV), and the majority heard of it from school and co-workers. Sixty-five (65%) of the HCWs had a positive attitude and were willing to offer PHV in the camps and host communities. There were no

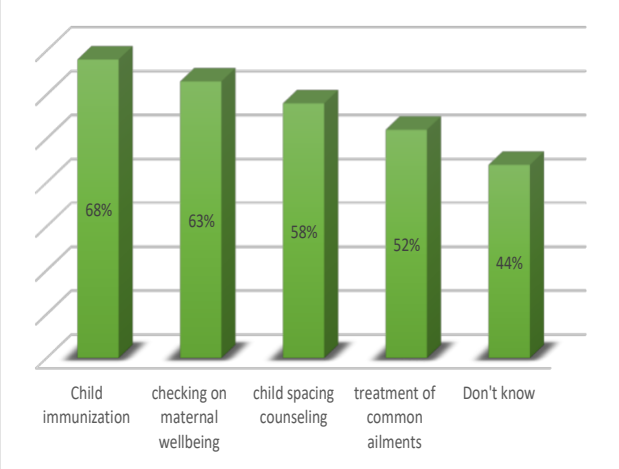

Figure I. Objectives of Postnatal Home Visit

statistically significant differences in the knowledge of nurse/midwives and CHEWs in PHV with P values of 0.70. The health mobilisers and CHEWs showed more willingness to offer PHV compared to the nurses/midwife and Hospital assistants, as shown in Table 2. Forty-eight (48%) of the HCWs had offered PHV in the last 12 months, and all were informal and only visited close friends or relatives. Among those that offered PHV, 20% were Health mobilizers and Health assistants, 54.6% were nurse/midwives, and 63.3% were CHEWs, as shown in Table 2.

Less than half of the respondents (48%) felt confident in offering PHV and counselling women on child spacing and immunization. When asked about the objectives of the PHV, 68% of the respondent ticked Child immunization, 58% said it was for child spacing counselling, and 38% were either not sure or did not know the essence of PHV, as shown in figure I.

When asked whether PHV will improve family planning uptake, 85% thought it will, while 10% were not sure and 5% thought that PHV wouldn't improve family planning uptake. Eighty-nine per cent of the respondent believed that PHV could be undertaken if incentivized, and 62% wanted more training to comfortably offer PHV.

DISCUSSION

The HCWs in the IDP camps and Host Community clinics have good knowledge and a positive attitude toward the practice of PHV. However, there is a need for training of the HCWs to incorporate the practice into routine MNCH. In addition, the PHV should be incentivized for easy implementation.

Routine PHV visits by midwives, community health workers, or volunteers can be incorporated into maternity care in the various clinic to aid families in coping with the challenges of parenthood and promote their longer-term physiological and emotional well-being.[12]

The HCWs studied were young ladies with a mean age of 26.45±8.23years and about two-thirds of them had been practising for at least five years. These young, skilled, and energetic workers can be persuaded to adapt to a new schedule of PHV with requisite training and incentives. In addition, most

of them also have long services years ahead to use and can train more staff.

This study showed that the majority of the HCWs were aware of PHV and have heard of it either in school or from their co-workers. The high level of awareness can be leveraged to implement it as a continuum of Maternal, Newborn, and Child Health (MNCH) in locations like the IDP camps and the host communities. In addition, almost half of the HCWs had offered at least one PHV, albeit informally in the preceding 12 months. This also goes further to affirm that some of the HCWs already had the experience of the practice and can easily be enticed to incorporate the practice into their routine work. However, it will require the enactment of laws as well as the provision of a conducive atmosphere for the practice to thrive. A similar practice of PHV has been implemented for minorities and vulnerable families in Oslo, Norway.[12]

Another important finding of the study is the positive attitude of 65% of the HCWs towards offering PHV in the camp and host community. The positive attitude among HCWs (who are the implementers of policies that affects their practice) is an important additive that can be leveraged to adopt this practice in the healthcare system. Our finding showed that the health mobilizers and CHEW were more willing to imbibe the PHV when compared to the nurse/midwife. This is not unexpected given the nature of their training and the services they offer in the clinic. While the CHEWs were trained as health extension workers to work within the communities and the health mobilizers were primarily engaged in visiting homes and mobilizing mothers to access immunisation, the nurse/midwives were trained to offer services mainly in the clinics and wards. Therefore, visiting mothers in their homes may be viewed as additional work by the nurse/midwife and Hospital assistants. But with less than half of the nurse/midwife studied showing a willingness to offer the services, there is a need to include PHV in their school curriculum and expose them to home visits during the community posting phase of their training. This will heighten the willingness of the nurse/midwife and enhance their productivity in offering PHV.

The HCWs listed Child immunization, checking on maternal wellbeing, child spacing counselling, treatment of common ailments, and checking neonatal wellbeing as the main components of the PHV. These components fall short of the essentials of routine PNC for all mothers, which included supporting exclusive breastfeeding, promoting good nutrition, sleeping under insecticide-treated nets, counselling on danger signs and home care, as well as referrals for complications such as bleeding, infections, and postnatal depression. [13,14] Our finding showed that 38% of the respondents were either unsure or did not know the essence of PHV. The health mobilizers and Hospital assistants were less knowledgeable, given their non-medical backgrounds and low educational levels.

A study in Ethiopia by llanghan-koru JA and colleagues, [15] showed that women had reduced demand for health services upon noting the poor quality of care provided by the professionals to them and their children. It is necessary to ensure quality PHV to reap the full benefit of the services. Poor quality PHV can hinder both health prevention and promotion, and this will consequently lead to the worsening of healthcare indices and may even reverse some of the gains of the current hospital-based PNC.[16] Therefore, for effective and efficient PHV, the HCWs must be knowledgeable and highly professional in conducting their duties. For quality assurance of the PHV, there is a need to ensure training and re-training of the HCWs to function effectively. This will improve their competence and gain the confidence and trust of the families they visit. Our study showed that 62% of the HCWs needed more training to comfortably offer PHV.

Almost 90% of the HCWs studied were willing to undertake PHV when incentivized, and this may include a special allowance to be paid for work done, and several families visited. To this effect, government funding of the project is necessary for prompt and appropriate payment of workers. The current system of out-of-pocket

payment for services, poor coverage of the National Health Insurance Scheme (NHIS), and inadequate government funding for the health sector may impede the implementation of new programs.[17] Also, studies in Tanzania and USA showed cultural differences, and long distance travelled by HCWs for the PHV significantly impeded the success of the program.[18,19] However, in the context of the IDPs and host communities, both the cultural barriers and logistics for transportation are almost nonexistent as the majority of the HCWs are familiar faces to the IDPs, they share similar cultural values, and they live in the vicinity of the clinics and IDP Camps.

Familiarity of the HCWs in the IDP camps and host communities is another factor that will ease the conduct of PHV, but the frequent transfer from place of service by authorities can sometimes be a major impediment, it is, therefore, necessary to enact policies that will ensure the permanence and continuous engagement of the HCWs in their respective communities. Another deterrent is the busy schedule and non-availability of the HCWs, and this can be overcome by employing more HCWs and giving them a flexible work schedule that includes PHV. A study by Amare et al have shown that a good organizational schedule of work has helped HCWs working in insecure and 'hard to reach to successfully implement PHV.[20]

The limitation of the study is the small sample size, and respondents were selected by a non-probability sampling method which makes it difficult to generalize the finding. A larger study involving HCW across all the IDP camps is recommended.

CONCLUSION

Most of the HCWs in the IDP camps and Host Community clinics have good knowledge and a positive attitude toward the practice of PHV. However, there is a need for training of the HCWs to incorporate the practice into routine MNCH. In addition, the PHV should be incentivized, and appropriate laws enacted to ensure implementation and effective service delivery.

Ethical Issues and Consent

The research was approved by the Society of Obstetrics and Gynaecology of Nigeria North-East (SOGON-NE) Sector, and all participants gave verbal consent to participate in the study after it was explained to them clearly that refusal to participate has no consequences and all information obtained will be used only for research purposes.

CONFLICT OF INTEREST

The authors declare no conflict of interest

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References

1. Mukonka PS, Mukwato PK, Kwaleyela CN, Mweemba O, Maimbolwa M. Household factors associated with use of postnatal care services. African Journal of Midwifery and Women's Health 2018; 12(4): 189-193. https://doi.org/10.12968/ajmw.2018.12.4.189
2. Tolera H, Gebre-Egziabher T, Kloos H. Risk factors for women's non-utilization of decentralized primary health care facilities for postnatal care in rural western Ethiopia. Therapeutic Advances in Reproductive Health 2020; 14: 1–19. doi: 10.1177/2633494120928340
3. Kaur M, Kaur R. Factors Affecting Utilization of Postnatal Services among Rural Postnatal Mothers. Journal of Nursing Science & Practice 2019;7(3):20-23. Available on (PDF) Factors Affecting Utilization of Postnatal Services among Rural Postnatal Mothers (researchgate.net). (accessed 05/06/2022)
4. Ugboaja JO, Berthrand NO, Igwegbe AO, OBI-Nwosu AL. Barriers to postnatal care and exclusive breastfeeding among urban women in southeastern Nigeria. Niger Med J 2013;54(1):45-50. DOI: 10.4103/0300-1652.108895
5. Somefun OD, Ibisomi L. Determinants of postnatal care non-utilization among women in Nigeria BMC Res Notes 2016; 9:21. DOI 10.1186/s13104-015-1823-3
6. Dairo MD, Atanlogun A. Utilization of Antenatal and Postnatal Care Services Among Adolescents and Young Mothers in Rural Communities in South-Western Nigeria. Afr. J. Biomed. Res 2018; 21(2): 133 - 137. Available on: https://www.ajol.info/index.php/ajbr/article/view/178855. (accessed 05/06/2022)
7. Odetola TD, Ogunleye CA. Home-based postnatal care: An indicator for improved maternal and neonatal health outcome in Nigerian rural communities. African Journal of Medicine and Medical Sciences 2018; 47(3):239-247. Available on: https://ojshostng.com/index.php/ajmms/article/view/433. (accessed 05/06/2022)
8. Leirbakk MJ, Dolvik S, Magnus JH, The advantages of home visits compared to providing care in a clinic setting: Maria Jensberg Leirbakk, *European Journal of Public Health 2017;*27(3). ckx187.073, https://doi.org/10.1093/eurpub/ckx187.073
9. Cockcroft A, Omer K, Gidado Y, Baba MC, Aziz A, Ansari U, Gamawa AI, Yarima Y, Andersson N. The impact of universal home visits with pregnant women and their spouses on maternal outcomes: a cluster randomised controlled trial in Bauchi State, Nigeria. BMJ Glob Health 2019;4:e001172. doi:10.1136/bmjgh-2018-001172.
10. Duru JI, Usman S, Adeosun O, Stamidis KV, Bologna L. Contributions of Volunteer Community Mobilizers to Polio Eradication in Nigeria: The Experiences of Non-governmental and Civil Society Organizations. Am J Trop Med Hyg 2019; 101(Suppl 4): 74–84 doi:10.4269/ajtmh.19-0068. doi: 10.4269/ajtmh.19-0068.
11. Soares AR, Guedes ATA, Cruz TMAV, Dias KC, Collet N, Reichert APS. Ideal time for home visits to newborns: an integrative review. Ciência Saúde Coletiva, 2020;25(8):3311-3320. DOI: 10.1590/1413-81232020258.25492018.
12. Leirbakk MJ, Magnus JH, Torper J, Zeanah P. Look to Norway: Serving new families and infants in a multiethnic population. Infant Ment Health J 2019;40(5):659-672. doi: 10.1002/imhj.21804. Epub 2019 Jul 18. PMID: 31318444; PMCID: PMC6973293. doi: 10.1002/imhj.21804
13. World Health Organization (WHO). Counselling for Maternal and Newborn Health Care: A Handbook for Building Skills. Geneva: World Health Organization; 2013. 11, Postnatal Care of the Mother and Newborn. Available from: https://www.ncbi.nlm.nih.gov/books/NBK304191/. (Accessed 10/03/2022)
14. American College of Obstetricians and Gynaecologists (ACOG). Optimizing postpartum care. ACOG Committee Opinion No. 736. Obstet Gynecol 2018;131:e140–50. Available on: https://www.qualityhealth.org/bree/wp-content/uploads/sites/8/2019/05/ACOG-optimizing-postpartum-care-2016.pdf (accessed 05/06/2022)
15. Callanghan-koru JA, Seifu A, Tholandi M, Graftjohnson J, Daniel E, Rawlins B, Worku B, Baqui AH. Newborn care practices at home and in health facilities in 4 regions of Ethiopia. BMC Pediatrics 2013; 13(198):1-11. https://doi.org/10.1186/1471-2431-13-198
16. Lomoro OA, Ehiri JE, Qian X, Tang SL. Mothers' perspectives on the quality of postpartum care in Central Shanghai, China, *International Journal for Quality in Health Care 2002;* 14(5: 393–401, https://doi.org/10.1093/intqhc/14.5.393
17. Tayo-Ladega O, Abdullahi TM, Islam KMA. Factors militating against public health financing in Nigeria: An empirical review. *American International Journal of Multidisciplinary Scientific Research* 2021;*7*(2):1-10. https://doi.org/10.46281/aijmsr.v7i2.1073
18. Hanson C, Manzi F, Mkumbo E, Shirima K, Penfold S, Hill Z, Shamba D, Jaribu J, Hamisi Y, Soremekun S, Cousens S, Marchant T, Mshinda H, Schellenberg D, Tanner M, Schellenberg JA. Effectiveness of a Home-Based Counselling Strategy on Neonatal Care

and Survival: A Cluster-Randomised Trial in Six Districts of Rural Southern Tanzania. Plos Med 2015; 12(9):1- 22. doi: 10.1371/journal.pmed.1001881

19. Lakin A, Sutter MB, Magee S. Newborn well-child visits in the home setting: A pilot study in a Family Medicine Residency. Rev Family Med 2015; 47(3):217- 221. Available on : https://pubmed.ncbi.nlm.nih.gov/25853533/ (Accessed 05/06/2022)
20. Amare Y, Scheelbeek P, Schellenberg J, Berhanu D, Hill Z. Early postnatal home visits: a qualitative study of barriers and facilitators to achieving high coverage. *BMC Public Health* 2018; 18(1): 1-8. https://doi.org/10.1186/s12889-018-5922-7