



Integration of endemic disease control workers in the Family Health Strategy, Campo Grande, Mato Grosso do Sul, Brazil, 2017*

doi: 10.1590/S1679-49742021000100018

Glória de Araújo Pereira¹ –  orcid.org/0000-0003-4118-0135

Renata Palópoli Pícoli² –  orcid.org/0000-0002-3753-6832

Luiza Helena de Oliveira Cazola¹ –  orcid.org/0000-0002-3853-0678

¹Universidade Federal de Mato Grosso do Sul, Campo Grande, MS, Brazil

²Fundação Instituto Oswaldo Cruz de Mato Grosso do Sul, Campo Grande, MS, Brazil

Abstract

Objective: To describe the process of Endemic Disease Control Worker (EDCW) integration into the Family Health Strategy. **Methods:** This was a descriptive cross-sectional study. Data were collected through a self-administered semi-structured questionnaire, from February to May 2017, in four Family Health centers in the urban region of Campo Grande, Mato Grosso do Sul, Brazil. **Results:** 57 Community Health Agents (CHW) and eight EDCWs participated. All participants reported providing guidance to property dwellers and 58 carried out mechanical vector control during the inspection of properties, in order to avoid and eliminate possible *Aedes aegypti* breeding sites. With regard to EDCW integration in the Family Health Strategy, 18 participants highlighted teamwork as a positive aspect; while 15 highlighted lack of autonomy to undertake legal interventions as a negative aspect. **Conclusion:** EDCW integration in the Family Health Strategy is feasible, however, adjustments need to be made to optimize activities within the perspective of shared work in the same territorial area.

Keywords: Primary Health Care; Family Health; Dengue; Aedes; Vector Control.

*Manuscript derived from the Master's Degree dissertation entitled 'Integration of endemic disease control workers in the Family Health Strategy', defended by Glória de Araújo Pereira at the Family Health Postgraduate Program, Federal University of Mato Grosso do Sul (UFMS), in 2018.

Correspondence:

Glória de Araújo Pereira – Av. Cuiabá, No. 695, Leblon, Campo Grande, MS, Brazil. Postcode: 79092-035

E-mail: gloriagap@gmail.com

Introduction

Dengue is the arbovirus that most affects humankind and is considered to be an endemic disease in over 100 countries. It is estimated that 390,000,000 individuals are at risk of infection.¹⁻² In Brazil, the growing number of severe cases and deaths makes this health condition even more significant.³⁻⁴

One of the National Dengue Control Program's components is the integration of dengue control actions performed by endemic disease control workers (EDCW) with the activities of community health workers (CHW) in the Family Health Strategy teams.

Between 2000 and 2010 in the state of Mato Grosso do Sul and its capital city, Campo Grande, dengue incidence followed the pattern found for the country's Midwest region and for Brazil as a whole, involving cycles of high transmissibility. In 2010, the incidence rate for the state of Mato Grosso do Sul was 1,167.8 cases per 100,000 inhabitants, while the rate for Campo Grande city was 3,952.5 cases per 100,000 inhab.⁵ In the years that followed, the dengue epidemics that occurred had a well-defined pattern involving cycles every three years. In 2013, when infection was at its highest, the state recorded 3,017.9 cases per 100,000 inhab., while its capital city recorded 5,605.0 cases per 100,000 inhab. In 2016, the state recorded 1,671.3 cases per 100,000 inhab. and the capital recorded 3,293.93 cases per 100,000 inhab.⁶⁻⁷

The National Dengue Control Program was created in 2002 as a strategy to address this endemic disease. One of its components was the integration of dengue control actions performed by endemic disease control workers (EDCW) with the activities of community health workers (CHW) in the Family Health Strategy teams.⁸ In 2009, the Ministry of Health alerted as to the need to reorganize work processes and define the roles and responsibilities of these health workers. The following year, Health Ministry Ordinance No. 1007, dated May 4th 2010, reaffirmed EDCW integration in Primary Health Care.⁹⁻¹⁰

In Campo Grande, these recommendations were put into place in 2011, under the coordination of the Health Care and Health Surveillance Directorates. The reference for this process was a publication produced by

the municipal government entitled 'Instructional Booklet – EDCW/CHW Integration in the Family Health Strategy'. It established the work process and the attributions of EDCWs and CHWs working in the same territorial area.¹¹

The objective of this study was to describe the process of integrating endemic disease control workers – EDCW – into the Family Health Strategy, in Campo Grande city, capital of the state of Mato Grosso do Sul, Brazil, in 2017.

Methods

This was a descriptive cross-sectional study conducted between February and May 2017 at four Family Health centers in urban areas of Campo Grande, MS.

The Family Health centers were selected by convenience, taking one from each of the municipality's four Health Districts and ensuring that their teams had sufficient length of experience with EDCW integration. Of the four Family Health centers, three were chosen because they were the first to take part in the pilot project in 2011 and the fourth took part with effect from 2012.

EDCWs at work at the time of data collection and who had worked for more than six months at the Family Health center were invited to take part in the study.

A self-administered semi-structured questionnaire was used to collect the data (included as supplementary material to this manuscript), developed based on the Health Ministry's Instructional Booklet, containing 24 questions divided into three topics: (i) work process organization; (ii) vector control actions; (iii) job responsibilities.

The Instructional Booklet proposes use of two work tools: (i) the checklist, a specific CHW tool, used during household visits to record the main problems found when inspecting the property and serving to inform CWH instructional and educational actions with families (living in the visited household) and to notify them as to the need to eliminate uncovered water recipients and rubbish;¹² and (ii) the Rapid *Aedes aegypti* Rate Estimator (*LIRAA* in Portuguese), an instrument for estimating the degree of infestation and distribution of the vector mosquito in the household environment.¹³

Data collection was scheduled in advance with the manager of the Family Health center according to the availability of the health workers.

Microsoft Excel[®] 2010 was used to support data organization and analysis, involving tabulation of

absolute and relative frequencies of CHW/EDCW use of the different work tools, their participation in team meetings, supervision of their activities and the person responsible for supervision, and the importance of integrating the two categories of health workers as perceived by them.

The study project was approved by the Federal University of Mato Grosso do Sul Research Ethics Committee: Certificate of Submission for Ethical Appraisal No. 62362716.7.0000.0021, issued on January 25th 2017. All participants signed a Free and Informed Consent form.

Results

In all, the 12 teams working at the four Family Health centers were comprised of a total of 75 CHWs and 8 EDCWs. Eighteen CHWs were considered to be losses: 5 because of annual leave and 13 because of sick

leave. As such, a total of 65 health workers took part (57 CHWs and 8 EDCWs).

With regard to work tools (Table 1), when asked about what they did when items on the checklist had unsatisfactory results when inspecting properties, the majority of the CHWs (42/57) informed that they gave guidance to the property dweller and 40/57 stated that they carried out mechanical vector control at the site. Over half the CHWs (33/57) did not use the Rapid *Aedes aegypti* Rate Estimator for planning their actions, justifying this by stating that the results were rarely presented and discussed in team meetings, while the majority of EDCWs (7/8) stated they used it routinely. Moreover, the CHWs acknowledged that the Rapid *Aedes aegypti* Rate Estimator results can influence the activities they carry out, by giving visibility to places where risk is greater (21/57) and intensifying visits (15/57).

Table 1 – Characterization of work tools used by endemic disease control workers and community health workers, Campo Grande, Mato Grosso do Sul, Brazil, 2017

Variables	CHW ^a (n=57)	EDCW ^b (n=8)	Total (n=65)
	n	n	n
Conduct when checklist result unsatisfactory^c			
Gives guidance to dweller	42	2	44
Mechanical vector control of environments	40	2	42
Requests chemical treatment	16	1	17
Refers to the nurse	11	1	12
Requests Health Surveillance measures	5	1	6
Carries out the household visit without any need for additional actions	4	–	4
Use of LIRAA^d			
Yes	24	7	31
No	33	1	34
Discussion of LIRAA^d in team meetings			
Never	6	2	08
Rarely	11	–	11
Sometimes	18	1	19
Frequently	11	2	13
Always	11	3	14
Influence of LIRAA^d result on the territory			
Planning field actions	11	1	12
Visualizing places of greater risk	21	3	24
Intensifying visits	15	3	18
Other	10	1	11

a) CHW: community health worker.

b) EDCW: endemic disease control worker.

c) Could choose more than one option.

d) LIRAA: Rapid *Aedes aegypti* Rate Estimator.

Table 2 – Characterization of the work process of endemic disease control workers and community health workers, according to job responsibilities, Campo Grande, Mato Grosso do Sul, 2017

Variables	CHW ^a (n=57)	EDCW ^b (n=8)	Total (n=65)
	n	n	n
Frequency of team meetings			
Weekly	47	6	53
Fortnightly	7	2	9
Monthly	1	–	1
Rarely	2	–	2
Participants of team meetings^c			
EDCW ^b /CHW ^a	57	7	64
Nurse	57	6	63
All team members	18	5	23
Area supervisor	19	6	25
Field supervision			
Yes	54	7	61
No	3	1	4
Professional who undertakes field supervision			
Nurse	30	–	30
Area supervisor	02	7	09
Nurse/area supervisor	25	1	26
Activities undertaken^c			
Gives guidance to dweller on how to avoid and eliminate possible vector breeding sites	57	8	65
Informs dweller about the disease, symptoms, risks, causative agent	55	7	62
Inspects rooms carrying out mechanical vector control	51	7	58
Lets supervisor know about presence of breeding sites	49	7	56
Refers suspected cases to the health center	48	6	54
Updates the property and strategic points register	43	7	50
Inspects rooms to see if there are breeding sites	37	7	44
Inspects rooms and collects larva	5	5	10
Investigates complaints made by neighbors about possible breeding sites in the micro area	6	2	8
Identifies breeding sites and applies larvicide when indicated	2	4	6

a) CHW: community health worker.

b) EDCW: endemic disease control worker.

c) More than one option could be chosen.

Table 2 illustrates the results with regard to work process. All 65 participants provided guidance to property dwellers about how to avoid and eliminate possible *Aedes aegypti* breeding sites, 62/65 gave guidance on dengue signs and symptoms and 58/65 carried out mechanical vector control. Weekly team meetings were reported by 53/65 workers. All 8 EDCWs and 54/57 CHWs stated that their dengue control activities were supervised. Of these, 30/57 CHWs reported that supervision was done by the team nurse, 2/57 CHWs

and 7/8 EDCWs, by the area supervisor, and just one (1/8) EDCW and 25/57 CHWs said that supervision was shared by the nurse and the area supervisor.

Seven (7/8) EDCWs and 29/57 CHWs considered that EDCW integration into Family Health Strategy teams was very important, and that positive points of integration were (i) team work, for 7/8 EDCWs and 23/57 CHWs, and (ii) prioritization of Family Health Strategy actions, highlighted by 8/57 CHWs. With regard to negative factors, lack of autonomy to perform

Table 3 – Characterization of integration as perceived by endemic disease control workers and community health workers, Campo Grande, Mato Grosso do Sul, 2017

Variables	CHW ^a (n=57)	EDCW ^b (n=8)	Total (n=65)
	n	n	n
Importance of integration			
Very important	29	7	36
Important	24	1	25
Not very important	4	–	4
Satisfaction with integration			
Satisfied	55	7	62
Dissatisfied	2	1	3
Positive aspects^c			
Team work	23	7	18
Sharing information	7	1	8
Immediate case notification	8	–	8
Prioritizing of FHS ^d actions	8	–	8
Negative aspects^c			
Lack of autonomy to conduct legal interventions	9	6	15
Absence of intersectoral workflow	14	–	14
Absence of integration	5	–	5
Accumulation of work duties	8	2	10

a) CHW: community health worker.

b) EDCW: endemic disease control worker.

c) Most mentioned.

d) FHS: Family Health Strategy.

legal interventions was predominant among 6/8 EDCWs; while among CHWs, 14/57 reported absence of intersectoral workflow, and 8/57 reported accumulation of work tasks (Table 3).

Discussion

This study described the process of EDCW integration in the Family Health Strategy, according to (i) work process organization, (ii) vector control actions and (iii) job responsibilities. All participants gave guidance to property dwellers about possible vector breeding sites and two thirds of them gave guidance about dengue signs and symptoms. The Rapid *Aedes aegypti* Rate Estimator was used by a minority of the CHW and by the majority of the EDCWs. EDCW integration in the Family Health Strategy was perceived as being very important for the majority of the EDCWs and for around half the CHWs.

EDCW integration in the Family Health Strategy, as determined by the Ministry of Health,⁶ was supported in Campo Grande by the ‘Instructional Booklet –

EDCW/CHW Integration in the Family Health Strategy’, which also recommends the use of work instruments such as the checklist, this being a specific CHW tool. A similar instrument was developed in São José do Rio Preto, São Paulo, known as the ‘property record’, which enabled monitoring of the situation found at the property, by means of assessing needs for changes in the proprietor’s behavior in relation to the points raised in the previous visit.¹⁴

The Rapid *Aedes aegypti* Rate Estimator was little used by the CHWs in this study, given the low feedback on its results to the rest of the team. Socializing results is important for obtaining support in actions intended to address endemic diseases in each municipality, and also to engage support of the population and sectors other than the Health sector.¹³

The scope of the responsibilities recommended in the Instructional Booklet provides that the health center manager should ensure meetings and encourage EDCW participation in these discussion spaces.¹⁴ This study found that meetings were held weekly and that nurses, CHWs and EDCWs participated most in them. It should

be noted that the Ministry of Health recommends that all health workers comprising the Family Health Strategy teams should take part.¹⁵

There were few reports of shared supervision in this study. Supervision by nurses of CWH actions in relation to health surveillance and supervision by the area supervisor of EDCW actions in relation to vector and zoonosis control, strengthens integrated actions within the array of Primary Care activities.⁹⁻¹² Moreover, supervision of EDCW activities by university-qualified Family Health Strategy workers facilitates their integration as team members.¹⁶

Identification of factors that hinder or assist the process of EDCW integration in dengue prevention and control activities within the Family Health Strategy contributes to cooperation and coordination, as well as assisting local management in evaluating and analyzing the impacts of their actions.¹⁷ With regard to the positive aspects, the reports regarding team work, information sharing, immediate case notification and prioritization of Family Health Strategy actions suggest the relevance of integrating EDCWs into the Family Health Strategy teams for dengue control

actions. As for the negative aspects, accumulation of work tasks by CHWs and absence of intersectoral workflow in terms of effective integration as perceived by some CHWs, and absence of autonomy to carry out legal interventions as reported by both EDCWs and CHWs, can cast doubt on the work carried out by community health workers as perceived by the families under their responsibility.

Although this study did not examine the participation of other health worker categories – nurses, area supervisors, local managers etc. –, its findings can provide a basis for further studies and thus expand the discussion on integration between endemic disease control workers and community health workers.

Authors' contributions

Pereira GA, Pícoli RP and Cazola LHO were responsible for the study design, data collection and analysis, as well as for drafting the article. All the authors have approved the final version of the manuscript and are responsible for all aspects thereof, including the guarantee of its accuracy and integrity.

References

1. Li Z, Liu T, Zhu G, Lin H, Zhang Y, He J, et al. Dengue Baidu Search Index data can improve the prediction of local dengue epidemic: a case study in Guangzhou, China. *PLoS Negl Trop Dis* [Internet]. 2017 Mar [cited 2020 Jul 21];11(3):e0005354. Available from: <https://doi.org/10.1371/journal.pntd.0005354>
2. Ministério da Saúde (BR). Secretaria de Vigilância em Saúde. Coordenação-Geral de Desenvolvimento da Epidemiologia em Serviços. Guia de Secretaria de Vigilância em Saúde. Coordenação-Geral de Desenvolvimento da Epidemiologia em Serviços: volume 2 [Internet]. Brasília: Ministério da Saúde; 2017 [citado 2020 jul 21]. 3 v. Disponível em: http://bvsm.s.saude.gov.br/bvs/publicacoes/guia_vigilancia_saude_volume_2.pdf
3. Ministério da Saúde (BR). Secretaria de Vigilância em Saúde. Departamento de Vigilância das Doenças Transmissíveis. Dengue: diagnóstico e manejo clínico: adulto e criança [Internet]. 5. ed. Brasília: Ministério da Saúde; 2016 [citado 2020 jul 21]. 58 p. Disponível em: <https://portal.arquivos2.saude.gov.br/images/pdf/2016/janeiro/14/dengue-manejo-adulto-crianca-5d.pdf>
4. Braga IA, Martin JLS. Histórico do controle de *Aedes Aegypti*. In: Cunha RV, Pimenta ND, Valle D, organizadores. *Dengue teorias e práticas*. Rio de Janeiro: Fiocruz; 2015. p. 61-73
5. Ministério da Saúde (BR). Secretaria de Vigilância em Saúde. Sistema nacional de vigilância em saúde: relatório de situação: Mato Grosso do Sul [Internet]. 5. ed. Brasília: Ministério da Saúde; 2011 [citado 2020 jul 21]. 36 p. Disponível em: http://bvsm.s.saude.gov.br/bvs/publicacoes/sistema_nacional_vigilancia_saude_mt_5ed.pdf
6. Ministério da Saúde (BR). Secretaria de Vigilância em Saúde. Monitoramento dos casos de dengue, febre de chikungunya e febre pelo vírus Zika até a Semana Epidemiológica 23, 2016. *Bol Epidemiol* [Internet]. 2016 [citado 2020 jul 21];47(28). Disponível em: <http://www.saude.gov.br/images/pdf/2016/julho/15/2016-boletim-epi-n28-dengue-chik-zika-se23.pdf>
7. Ministério da Saúde (BR). Secretaria de Vigilância em Saúde. Monitoramento dos casos de dengue, febre de chikungunya e febre pelo vírus Zika até a Semana Epidemiológica 27, 2016. *Bol Epidemiol* [Internet].

- 2016 [citado 2020 jul 21];47(31). Disponível em: <http://www.saude.gov.br/images/pdf/2016/agosto/10/2016-026--2-.pdf>
8. Ministério da Saúde (BR). Fundação Nacional de Saúde. Programa nacional de controle da dengue [Internet]. Brasília: Ministério da Saúde; 2002 [citado 2020 jul 21]. 32 p. Disponível em: http://bvsmms.saude.gov.br/bvs/publicacoes/pncd_2002.pdf
 9. Brasil. Ministério da Saúde. Portaria MS/GM nº 1.007, de 04 de maio de 2010. Define critérios para regulamentar a incorporação do Agente de Combate às Endemias - ACE, ou dos agentes que desempenham essas atividades, mas com outras denominações, na atenção primária à saúde para fortalecer as ações de vigilância em saúde junto às equipes de Saúde da Família [Internet]. Diário Oficial da União, Brasília (DF), 2010 maio 5 [citado 2020 jul 21];Seção I:36. Disponível em: http://bvsmms.saude.gov.br/bvs/saudelegis/gm/2010/prt1007_04_05_2010.html
 10. Brasil. Ministério da Saúde. Portaria MS/GM nº 3.252, de 22 de dezembro de 2009. Aprova as diretrizes para execução e financiamento das ações de Vigilância em Saúde pela União, Estados, Distrito Federal e Municípios e dá outras providências [Internet]. Diário Oficial da União, Brasília (DF), 2009 dez 23 [citado 2020 jul 21];Seção I:65. Disponível em: http://bvsmms.saude.gov.br/bvs/saudelegis/gm/2009/prt3252_22_12_2009.html
 11. Secretaria Municipal de Saúde de Campo Grande (MS). Resolução nº 362, de 23 de janeiro de 2018. Nota técnica para o processo de trabalho da integração do ACE/ASP na ESF/EACS no âmbito da Secretaria Municipal de Saúde e dá outras providências [Internet]. Diogrande, Campo Grande (MS), 2018 jan 24 [citado 2020 jul 21];Seção I:21. Disponível em: <https://www.campograndenews.com.br/uploads/noticias/2020/03/10/82k03xwajb3o.pdf>
 12. Cesariano MB, Dibo MR, Ianni AMZ, Vicentini ME, Ferraz AA, Neto FC. A difícil interface controle de vetores-atenção básica: inserção dos agentes de controle de vetores da dengue junto às equipes de saúde das unidades básicas no município de São José do Rio Preto. Saúde Soc [Internet]. 2014 set [citado 2017 set 19];23(3):1018-32. Disponível em: <http://dx.doi.org/10.1590/S0104-12902014000300023>
 13. Ministério da Saúde (BR). Secretaria de Vigilância em Saúde. Departamento de Vigilância das Doenças Transmissíveis. Levantamento rápido de índices para *Aedes Aegypti* (LIRAA) para vigilância entomológica do *Aedes aegypti* no Brasil: metodologia para avaliação dos índices de Breteau e Predial e tipo de recipientes [Internet]. Brasília: Ministério da Saúde; 2013 [citado 2020 jul 21]. 84 p. Disponível em: http://bvsmms.saude.gov.br/bvs/publicacoes/manual_liraa_2013.pdf
 14. Ferreira AD, Vieira ER, Neves FM. Integração do ACE na ESF e EACS no município de Campo Grande: coletânea de instrumentos norteadores para Estratégia de Saúde da Família campo-grandense. Campo Grande: Secretaria Municipal de Saúde Pública; 2012. p. 1-13
 15. Brasil. Ministério da Saúde. Portaria de consolidação MS/GM nº 2, anexo XXII de 28 de setembro de 2017. Aprova a Política Nacional de Atenção Básica, estabelecendo a revisão de diretrizes para a organização da Atenção Básica, no âmbito do Sistema Único de Saúde (SUS) [Internet]. Diário Oficial União, Brasília (DF), 2017 set 22 [citado 2020 jul 21];Seção I:68. Disponível em: http://bvsmms.saude.gov.br/bvs/saudelegis/gm/2017/prc0002_03_10_2017.html
 16. Pessoa JPM, Oliveira ESF, Lemos CLS, Teixeira RAG. Integração e articulação intersetorial no controle da dengue: a percepção dos agentes de combate de endemias. Indagatio Didactica [Internet]. 2013 ago [citado 2018 out 9];5(2):490-496. Disponível em: <https://proa.ua.pt/index.php/id/article/view/4390>
 17. Pessoa JPM, Oliveira ESF, Teixeira RAG, Lemos CLS, Barros NF. Controle da dengue: os consensos produzidos por Agentes de Combate às Endemias e Agentes Comunitários de Saúde sobre as ações integradas. Ciênc Saúde Coletiva [Internet]. 2016 ago [citado 2016 set 5];21(8):2329-38. Disponível em: <http://dx.doi.org/10.1590/1413-81232015218.05462016>

Received on 03/12/2019

Approved on 17/06/2020

Associate editor: Luciana Guerra Gallo -  orcid.org/0000-0001-8344-9951

Supplementary Material – Data collection questionnaire

APPENDIX A – DATA COLLECTION QUESTIONNAIRE

This is a Master's Degree study. Your participation is very important, since the result of this study will guide actions related to the work process and single territory integrated surveillance actions. Read the questions carefully and choose the alternative that best describes your daily work.

Reading and signing of the Free and Informed Consent form.
Guidance on filling in the questionnaire.

COLLECTION INSTRUMENT

DATE: ____/____/____

Health District: _____

Identification/Family Health Center: _____

1. Professional characterization:

Community Health Worker (CHW) Endemic Disease Control Worker (EDCW)

2. How long have you been working as a CHW/EDCW?

____(years)/____(months)

3. Did you receive training when CHW/EDCW were integrated at your health center?

Yes No

4. How often do you receive training/updating about CHW/EDCW integration?

Never Rarely Sometimes Frequently Always

5. What topics are addressed in the trainings? (you may choose more than one answer).

notions about dengue vector biology mechanical vector control
 type of breeding site / Rapid *Aedes aegypti* Rate Estimator
 household visits there is no training.

6. Do you use the Checklist?

Yes No Sometimes

Justify your answer: _____

7. When making a household visit (HV), if a Checklist item is unsatisfactory, what do you do? (you may choose more than one answer).

Mechanical vector elimination Dweller guidance Refer to the nurse
 Request chemical treatment Request health surveillance measures
 Carry out the HV without any need for additional actions
 I do not use the Checklist.

8. How often are team meetings held?

weekly fortnightly monthly rarely never

9. Who takes part in the team meeting? (you may choose more than one answer).

- Nursing technician Doctor CWH EDCW Area supervisor
 Nurse Dentist Oral health auxiliary Manager Other health workers

10. Do you use the Rapid *Aedes aegypti* Rate Estimator as a tool for planning actions in your territory?

- Yes No

Justify your answer: _____

11. Are the Rapid *Aedes aegypti* Rate Estimator results presented in team meetings?

- Never Rarely Sometimes Frequently Always

12. Do you believe that the Rapid *Aedes aegypti* Rate Estimator results can influence the activities undertaken by you in your territory?

- Yes No

Justify your answer: _____

13. Do you use the dynamic map?

- Never Rarely Sometimes Frequently Always

14. In your opinion, what is the importance of the dynamic map?

15. Are meetings held for debriefing on the previous day's activities? (Meetings together with the nurse and area supervisor to exchange information).

- Yes No

Justify your answer: _____

16. Do you receive in-field supervision on vector actions?

- Yes No

17. Who supervises you? (you may choose more than one answer).

- Nurse Supervisor Manager Coordinator I do not have supervision
 I don't know

18. With regard to household visits, what is done if a micro area (MA) is discovered? (you may choose more than one answer).

- MA rotation MA joint efforts Visits are not made

19. In the event of shut up property and/or when the dweller is not at home, what do you do?
