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Personnel, Task, Tools and Performance of HIV–Program of the North West Region of Cameroon

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ABSTRACT

Introduction

The current vision in the struggle against HIV/AIDS is to put an end to HIV/AIDS by 2030 along with tuberculosis, malaria, Sexually Transmissible Diseases (STIs) like syphilis and Tropical Neglected Diseases (TND) by 2050. The attainment of the 2020, 2030 and 2050 targets require a very responsive and robust National HIV/AIDS program with and effective monitoring and Evaluation (M&E) System supported by adequate personnel, task and tools.

Materials and Methods

The aim of this study was to improve the performance of the HIV/AIDS program of the North West region of Cameroon through the determination of the relationship between personnel, tasks, tools and the performance of the program, to inform recommendations for a change to a better results oriented approach. A cross-sectional descriptive study design was used through self-administer structured questionnaires to 75 personnel of the North West Region HIV-program selected by the cluster sampling technique. Descriptive and inferential (Chi Square of Pearson test) statistics were used to analyse the data using SPSS version 22.0 package. Data statistics were presented at Confidence Level (CL) of 95%, with significance level set at 0.05.

Results

The results revealed high degree of dependence between personnel profile, Tasks, Tools and the performance of the HIV/AIDS-Program.

Keywords: *Personnel profile; Task; Tools; Performance.*

INTRODUCTION

HIV is an infectious disease that is transmitted mainly by parenteral and sexual routes. It bonds to its target cells and uses regional lymph nodes to replicate and later-on invade the whole body. It evolves to chronicity among patients who are on and adhere to treatment for long time.[1]

Over 39 million people has already died so far from HIV pandemic and thus putting a final end to the disease will be a good mark of solidarity and a historic obligation for those who have already lost their lives to the disease.[2]

At the moment, Cameroon is counted among the countries with high prevalence in HIV/AIDS and which have not satisfactorily attained the global and national objectives of the HIV/AIDS program in both general and specific aspects. The global vision to assure an AIDS-free world sells the notion of the elimination of not only HIV/AIDS, but of also other problematic sexually transmissible diseases associate with HIV/AIDS such as syphilis, vertical HIV transmission and Chlamydia. Cameroon is far below average performance in these domains.[3]

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In addition, there is a great discrepancy among nations on the amount spent on HIV program which ought to be declining given the remarkable global achievement made. For instance, among the various components of HIV spending which include ARVs, Personnel, Laboratory services and others, expenditure incurred lab services alone from national budget is 4% in Malawi, 9% in Ethiopia, 6% in Rwanda, 5% in Zambia and 15% in RSA. Cameroon spends more on the HIV-program but realizes unsatisfactory results which imply that the M and E mechanism among other components of the program could be defiant. With these in mind, undertaking this study is driven by the interest to reveal gaps in the current M & E Mechanism of the HIV- program and to provide recommendations based on facts to improve the capacity and performance of the M & E system/mechanism of the HIV/AIDS program. Hence, the following objectives guided this study: To establish if personnel profile affect the performance of the HIV-program in Bamenda Health District of the North West Region of Cameroon; to investigate whether tasks affect the performance of the HIV- program in Bamenda Health District of the North West Region of Cameroon; to ascertain if tools affect the performance of the HIV-program in Bamenda Health District of the North West Region of Cameroon; to identify the challenges of the HIV- program in Bamanda District of the North West Region of Cameroon.[4]

MATERIALS AND METHODS

This study was carried out using a descriptive cross-sectional study design. The structured questionnaire used to collect quantitative data was made of 36 multiple choice questions divided into main five sections. Each section corresponded to a specific research question. The questionnaires were self-administered after having obtained verbal consent from participants. The participants, who desired to participate but for certain reasons could not fill the questionnaire on the spot, were given a day (24 hours) to submit the completed questionnaire. A non-probable sampling technique (cluster sampling technique) was applied to obtain a sample of field/operational personnel of the HIV-program.

SPSS 22.0 and the Excel 2010 were used to analyse and present data collected. The results were presented using simple frequency distribution tables, pie charts, bar charts and histograms. Crossed tables were equally used to determine and explain the relationship that exists between the dependent and independent study variables. Tables of statistical tests were done to verify relationship between study variables. The Inferential analyses mainly involved the test for dependence between dependent and independent variables such as the Chi Square test.

RESULTS

Socio-demographic Data

This study reveals on Table 1 that most of the personnel (n=43, 56.6%) are of the health science background, most serve in the service of Ault health care and management service (n=24, 31.6%), with most of them serving at data managers (n=28, 36.8%) and site nurses (n=15, 19.7%). Table 2 highlights the fact that most of the personnel have been in the program for 3 to 5 years (n=45, 59.2%) and the majority had between

3 to 6 in-service trainings (n=31, 40.8) in past 3 year. Most of the in-service trainings were focused data collection (n=46, 65.7%) and report writing (n=7, 65.7%).

Table 1. Professional education, service/unit and roles of personnel in the HIV – program.

Professional Education	Frequency	Percentage (%)
None	2	2.6
Medicine	4	5.3
Health Sciences	43	56.6
Social & Mgt Sc.	14	18.4
Others	13	17.1
	76	100
Service/Unit of intervention		
PMTCT	2	2.6
VCT	5	6.6
Com. Mobilization	3	3.9
Adult care and Mgt	24	31.6
Psychosocial support	11	14.5
TB/HIV	7	9.2
Paediatric HIV Service	7	9.2
Others	17	22.4
	76	100
Personnel category or role		
Psychosocial support	3	3.9
Supervisor	2	2.6
Focal Point	6	7.9
Head of Treatment centre	3	3.9
M & E personnel	11	14.5
Site Nurse	4	5.3
Field Agent	15	19.7
Data Manager	28	36.8
Others	4	5.3
	76	100

Table 2. Longevity of service, in-service trainings of personnel in the HIV – program.

Longevity of service	Frequency	Percentage (%)
< 2 years	22	28.9
3-5 years	45	59.2
6-9years	5	6.6
>10years	4	5.3
	76	100
Number of In-service trainings in the last 3 years		
None	8	10.5
<2 trainings	17	22.4
3-6trainings	31	40.8
7-10 trainings	14	18.4

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>10 trainings	6	7.9
	76	100
Most Frequent in-service trainings		
Data collection and entry	46	65.7
Report writing	7	10
Communication	2	2.9
Partnership and collaboration	2	2.9
Management	6	8.6
Supervision	4	5.7
Others	3	4.3
	70	100

The Chi square of Pearson tests between longevity of service of personnel and knowledge of collaborators (Table 3,4), gives the following values; Degree of freedom (4-1) X (4-1) = 9, Calculated Chi Square value = 33,950, Read Chi Square value = 16,92; X2(read) < X2(calculated). Conclusion; H0 is rejected, hence H1 verified; P value = 0.014 (Significant)

Table 3. Cross table between longevity of service of personnel and knowledge of collaborators.

		Knowledge of collaborators				Total
		None of them	A few of them	Most of them	Most of them	
Longevity of service	<2 yrs	0	13	6	3	22
	2 – 5 yrs	2	14	22	7	45
	6 – 9yrs	1	1	3	0	5
	> 10yrs	0	0	1	3	4
	Total	3	28	32	13	76

Table 4. Chi square table on longevity of service of personnel and knowledge of collaborators.

Chi Square Test	Value	Df	Asymptotic signification (P-vaue)
Chi Square of Pearson	20.745a	9	0.014

Task appraisal and practice by personnel of the HIV program. Table 5 indicates that some personnel consider the nature of data collection to be difficult (n=29, 38.2%) while the majority consider the steps involved to be many (n=46, 60.5%).

Data validation is mostly done through data validation meetings (n=49, 64.5%) while the electronic method is less often used (n=26, 34.2%).

The regular frequency (n= 32, 42.1%) and perception of the nature of the task of data input into the online Health Information system (HIS) to be difficult (n=33, 43.5%) justify that more improvement and close facilitating supervision on the aspect is required.

Table 5. Appraisal of The Nature of data collection, Data management and Reporting in the HIV-program.

Nature of data collection task	Frequency	Percentage (%)
Very simple	9	11.8
Simple	36	47.4
Difficult	29	38.2
Very difficult	2	2.6
	76	100
Steps of data Collection		
Very few	2	2.6
Few	18	23.7
Many	46	60.5
Too many	10	13.2
	76	100
Data validation and management Methods		
None done	1	1.3
Data management meetings	49	64.5
Management via online platform	26	34.2
	76	100
Frequency of Online Data Input		
Not at all	18	23.7
Rarely	8	10.5
When internet is available	11	14.5
Sometimes	7	9.2
Always	32	42.1
	76	100
Task of data input in online HIS(Health information System)		
Very simple	6	7.9
Simple	31	40.8
Difficult	33	43.4
Very Difficult	6	7.9
	76	100
Report production frequency		
Daily	14	18.4
Weekly	17	22.4
Monthly	39	51.3
Every 3 months	6	7.9
	76	100
Report Content		
Not pertinent	3	3.9
Partial pertinence	9	11.8
Complete pertinence coverage	64	84.2
	76	100

Table 6 provides information on which indicates that more personnel consider the data transmission task to be simple and very simple. However, appropriate measure need to be put in place to sort out those who consider data transmission procedure to be complicated

(n=21, 27.6%), since the timeliness and completeness of data or information transmitted to the hierarchy is very vital for decision making by the stake holders. (Table 7-8)

Table 6. Data transmission, type communication and feedback methods used the HIV-program.

Nature of Data transmission methods	Frequency	Percentage (%)
Very	17	22.4
Simple	37	48.7
Complicated	21	27.6
Others	1	1.3
	76	100
Type of Communication methods with immediate superior		
Verbal	22	28.9
Written documents	16	21.1
Telephone calls	17	22.4
Intranet	1	1.3
Internet (online)	19	25
Others	1	1.3
	76	100
Frequency of feedback		
No feedback done	3	3.9
Rarely done	7	9.2
Irregularly done	65	85.5
Always done	1	1.3
	76	100
Type of Feedback Method		
Ono-on-one calls	16	21.1
Dialogue	19	25
Formal meetings	27	35.5
Meetings as per calendar	8	10.5
Written feed back	6	7.9
	76	100

Table 7. Cross table between number of in-service trainings of service of personnel and knowledge of indicators.

		Knowledge of indicators				Total
		None	Just a few indicators	Most of the indicators	All of the indicators	
Number of in- service	None	0	3	4	1	8
	< 2 trainings/ workshop	1	7	3	6	17
	3 - 6 trainings/ workshops	0	4	20	7	31
	7 - 10 train- ings/workshop	0	0	4	10	14
	>10 trainings/ workshops	0	0	3	3	6
	Total	1	14	34	27	76

Table 8. Chi square table on number of in-service training of personnel and knowledge of indicators.

Chi Square Test	Value	Df	Asymptotic signification (P-value)
Chi Square of Pearson	28.521a	12	0.005

Appraisal of Tools of the Program

With regard to data collection tool, 82% make use of standard registers while 9.2% use online software programs. The use of improvised forms though small (n=6, 7.6%) is a major cause of concern because data collection is one of the basic aspects of the program upon which almost every other aspect especially Monitoring and Evaluation.

The low use of online software data collection tool (n=7, 9.2%) equally pose a problem because of the respondents had been trained on data collection and entre and some are data managers in their respective services. (Table 9)

Table 9. Most frequently used Data collection, Data entry check, Reporting and Data Transmission Tool in the HIV-program.

Most frequently used tool of data collection	Frequency	Percentage
Standard registers	19	25
Standard forms	4	5.3
Standard forms and registers	40	52.6
Improvised forms and registers	6	7.6
Online software program	7	9.2
	76	100
Most frequently used tool of Data Entry Check		
No tool available	1	1.3
Reference Manual	19	25
Telephone calls	8	10.5
Colleague double check	35	46.1
Online verification software	9	11.8
Others	4	5.3
	76	100
Most frequently used tool for report writing		
No formal tool	8	10.5
Standard structured forms	64	84.2
Others	4	5.3
	76	100
Most frequently used tool for data transmission		
Physical deposition at hierarchy	33	43.4
Electronic means	39	51.3
Others	4	5.3
	76	100

The majority of participants' double check with their colleagues (n=35, 46.1%) to be sure of the quality of data collection and entry done while others make use of reference manual (n=19, 25%). In Table 10, we observe that, ordinary phone call (n=45, 59.2%) are used

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more than Flotte calls (n=13, 17.1%) and E-mails (n=16, 21.1%). Perhaps Flottes are not in sufficient quantities as they would have been the best means since they are hardly influenced by network problems and communication credit scarcity.

Table 10. Most frequently used Formal Communication, Feedback, Supervision tools in the HIV-program.

Most frequently used Formal Communication tool	Frequency	Percentage
Ordinary phone calls	45	59.2
Flotte calls	13	17.1
E-mails	16	21.1
Others	2	2.6
	76	100
Most frequently used feedback tool		
Phone calls	23	30.3
e-mails	15	19.7
Written official correspondence	36	47.4
Others	2	2.6
	76	100
Most frequently used Supervision tool		
No particular tool	4	5.3
Plan of action	14	18.4
Reference Manual	9	11.8
Indicator guide	28	36.8
Reports	20	26.3
Others	1	1.3
	76	100

Indicators guide (n=28, 36.8%), reports (n=20, 26.3%), and plan of action (n=14, 18.4%) are used in the supervision process. This further highlights the need of personnel to have good knowledge of their indicators, make use of standard structured reports and be involved in the elaboration of plan of action in order to facilitate the process.

The Chi square of Pearson tests role/title of personnel and data management tool (Table 11), gives the following values; Degree of freedom (9-1) X (3-1) = 16; Calculated Chi Square value = 39.273; Read Chi Square value = 26.30; X2(read) < X2(calculated). Conclusion; H0 is rejected, hence H3 verified; P value = 0.001 (Significant) (Table 12)

The Chi square of Pearson tests between type of in-service training of personnel and tool of data entry check (validation) (Table 13), gives the following values; Degree of freedom (7-1) X (6-1) = 30; Calculated Chi Square value = 50.468; Read Chi Square value = 43.77; X2(read) < X2(calculated). Conclusion; H0 is rejected, hence H3 verified; P value = 0.011 (Significant) (Table 14)

Table 11. Cross table between role/title of personnel and data management tool.

		Data management methods/tools			Total
		No data management	Data Management Meeting	Data management Online platform	
Personnel role or title	Psychosocial agent	0	1	2	3
	Supervisor	0	1	1	2
	Focal Point	0	3	3	6
	Head of treatment center	0	3	0	3
	M & E personnel	0	4	7	11
	Site Nurse	0	0	4	4
	Field Agent	0	13	2	15
	Data Manager	0	21	7	28
	Others	1	3	0	4
	Total	1	49	26	76

Table 12. Chi square table on role/title of personnel and data management tool.

Chi Square Test	Value	Df	Asymptotic signification (P-value)
Chi Square of Pearson	39.273a	16	0.001

Table 13. Cross table between type of in-service training of personnel and tool of data entry check (validation).

		Tool/method of data entry check						Total
		No tool available	Reference manual	Telephone calls to hierarchy	Double check with colleague	Online verification on software	Others	
Type of in-service training	Data collection and entry	0	11	6	21	6	2	46
	Report writing	0	2	0	4	0	1	7
	Communication	0	1	0	1	0	0	2
	Partnership and collaboration	1	0	1	0	0	0	2
	Management	0	3	0	2	1	0	6
	Supervision	0	0	0	3	1	0	4
	Others	0	1	0	2	0	0	5
	Total	1	18	7	33	8	3	70

Table 14. Chi square table type of in-service training of personnel and tool of data entry check (validation)

Chi Square Test	Value	Df	Asymptotic signification (P-value)
Chi Square of Pearson	50.468a	30	0.011

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Performance Appraisal of the Program

The performance rating of personnel of the HIV program presented on Table 15 indicates that from the personnel perspective, the different aspects of the program have the following cumulative performance score; Documentation (data collection and entry) (79%), Data management (90.8%), Report writing (93.8%); Data transmission (79%).

Table 15. Documentation, Data management, Report Writing, Data Transmission Performance appraisal by personnel of the HIV-program.

Documentation Performance	Frequency	Percentage (%)
Below Average	1	1.3
Average	15	19.7
Good	18	23.7
Very Good	30	39.5
Excellent	12	15.8
	76	100
Data Management Performance		
Average	7	9.2
Good	27	35.5
Very good	29	38.2
Excellent	13	17.1
	76	100
Report Writing Performance		
Below average	1	1.3
Average	4	5.3
Good	28	36.8
Very good	31	40.8
Excellent	12	15.8
	76	100
Data Transmission Performance		
Below average	3	3.9
Average	13	17.1
Good	27	35.5
Very good	23	30.3
Excellent	10	13.2
	76	100

Table 16 denotes performance rating of partnership and collaboration to be 61.8 %. Other aspects of evaluation presented on Table 16 reveals that the majority (n=33, 43.4%) of participate attest that effort of personnel is equal to the results while other (n=25, 32.9%) are of the opinion that effort input by personnel surpasses the results. While a majority (n=41, 53.9%) attest that resources and logistics of the HIV-program are not regularly (consistently) available, a minority (n=15, 19.75), are of the opinion that the resources for the program are always available.

The Chi square of Pearson tests between service/unit of personnel and communication performance appraisal (Table 17), gives the following values; Degree of freedom (8-1) X (4-1) = 28; Calculated

Chi Square value = 42.962; Read Chi Square value = 41.34; X2(read) < X2(calculated). Conclusion; H0 is rejected, hence H2 verified P value = 0.035 (Significant) (Table 18)

Table 16. Appraisal of partnership, Efforts, Resources and Roles of Tasks by personnel of the HIV- program.

Partnership performance	Frequency	Percentage (%)
Below average	6	7.9
Average	23	30.3
Good	15	19.7
Very Good	21	27.6
Excellent	11	14.5
	76	100
Appraisal Efforts and results matching		
Can.t really tell	10	13.2
Effort surpass results	25	32.9
Results surpass effort	8	10.5
Efforts equal Results	33	43.4
	76	100
Appraisal of availability of resources		
Not often available	20	26.3
Available sometimes	41	53.9
Yes, always available	15	19.7
	76	100
Appraisal of contribution of task to objective attainment		
No	4	5.3
Sometimes	31	40.8
Yes	41	53.9
	76	100

Table 17. Cross table between service/unit of personnel and communication performance appraisal.

		Communication performance appraisal					
		Below average	Average	Good	Very Good	Excellent	Total
Service or unit	PMTCT	0	0	2	0	0	2
	VCT	0	1	3	1	0	5
	Com. Mobilization	0	2	0	1	0	3
	Adult care & Management	0	2	10	6	6	24
	Psychosocial Support	0	0	3	4	4	11
	TB/HIV	1	0	0	4	2	7
	Paediatric HIV	1	0	3	3	0	7
	Others	0	3	9	5	0	17
	Total	2	8	30	24	12	76

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Table 18. Chi square table on service/unit of personnel and communication performance appraisal

Chi Square Test	Value	Df	Asymptotic signification (P-value)
Chi Square of Pearson	42.962a	28	0.035

The Chi square of Pearson tests between title/role of personnel and Report writing performance (Table 19), gives the following values; Degree of freedom (9-1) X (5-1) = 32; Calculated Chi Square value = 70.347; Read Chi Square value = 46.19; X2(read) < X2(calculated). Conclusion; H0 is rejected, hence H2 verified; P value = 0.000 (Very Significant). (Table 20)

Table 19. Cross table between title/role of personnel and Report writing performance.

		Report writing performance					
		Below average	Average	Good	Very Good	Excellent	Total
Personnel role or title	Psychosocial agent	0	0	0	3	0	3
	Supervisor	1	0	1	0	0	2
	Focal Point	0	2	3	1	0	6
	Head of treatment center	0	0	2	1	0	3
	M & E personnel	0	0	2	8	0	11
	Site Nurse	0	0	3	1	1	4
	Field Agent	0	1	4	7	3	15
	Data Manager	0	1	13	7	7	28
	Others	0	0	0	3	1	4
	Total	1	4	28	31	12	76

Table 20. Chi square table on title/role of personnel and Report writing performance.

Chi Square Test	Value	Df	Asymptotic signification (P-value)
Chi Square of Pearson	70.347a	32	0

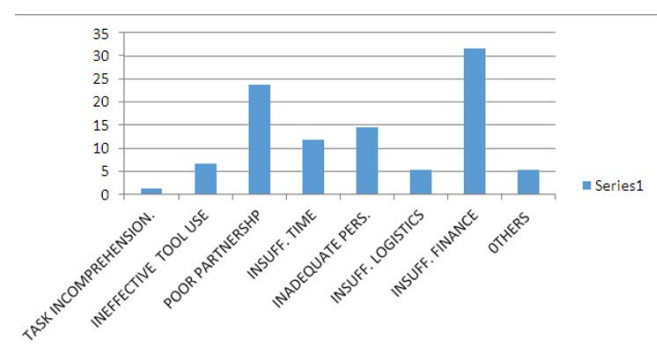### Difficulties and Challenges of the Program

Figure 1 indicate that the most difficult aspect of the HIV-program is partnership and collaboration.

The main challenge of the HIV revealed on Figure 2 is financial insufficiency followed by Poor partnership and collaboration.

Figure 1: Difficult aspects of the HIV – program.
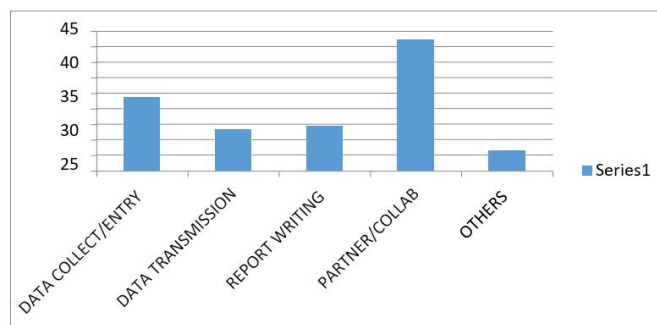
Figure 2: Challenge of the HIV-program.

DISCUSSION

Professional characteristics influence the extent to which specific and specialized knowledge or skill can be acquired and mastered.It is noteworthy that such aspects which characterize professional profile go a long way to make a difference and create a distinction in the way personnel perceive and perform at different situation and/or context of the program.

The perception and appraisal by personnel on the way and manner in which certain task of the program are organized could serve as a reliable means of evaluating well the program tasks and activities are organized and executed. This will equally help in the identification of any deviation from the norm as well as the identification of lapses for eventual rectification.[5]

More efforts need to be channeled in the light of feedback in order the complete the regular feedback mechanism (n=65, 85.5%). Notwithstanding the fact that formal meetings are good for feedback mechanism (n=27, 35.5%), a combination of methods based on the context is recommended while measures are taken to step up the formal methods which currently appear to be at below average level of performance. This is supported by USAID (2018).[6]

Tools constitute one of the most important elements required

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for the successful implementation and performance of a project. In the context and scope of the study, the tools of interest are those which are used the routine and regular activities of the HIV – program such as data collection an d input, data transmission, data verification and validation, report writing and communication.

In effect, using improvised tools only lead to loss and inaccurate collection of data. It is therefore requiring that the reason for which improvised tools are used be identified and resolved to avoid further inconveniences in the basis and essential aspect of the program like data collection.

The reference manual occupies the second position in this light surely because of the associated stress involved in carrying it all along or flipping through pages to make references and in addition, maybe there could be restrictions on when and where to use the manuals, leaving the personnel to the mercy of their colleagues as potential sources of help. It could equally be due to the fact that the reference manuals are not available (insufficient stock) and accessible to all facilities and personnel whenever need arises. E-mails of course are rare not often used because of the know-how, network, accessory and context specific hindrances associated with using e-mails.

So far only the data collection and data management and report writing meets the performance recommendation of the 90-90-90-approach.

This discrepancy performance could be as a result of the difference related to different services/units and roles of the personnel. However, the majority (n=41, 53.9%) agrees that the input activities and resource actually lead to the attainment of objectives and expected results, while other (n=31, 40.85) indicate that such phenomenon is a permanent occurrence.[7]

The main challenge revealed is financial insufficiency followed by Poor partnership and collaboration similar to a study by Agbor et al. (2014).[8]

CONCLUSION

Based on the different data collection and analysis that has been done throughout this study, significant relationship has been deduced between the independent and dependent variable through descriptive and inferential statistics, and through qualitative analyses of data that has led to the following three conclusions: Personnel profiles influence the performance of HIV-program in the Bamenda Health District of the North West Regions of Cameroon; Tasks affect the performance of HIV-program in the Bamenda Health District of the North West Regions of Cameroon; tools determine the performance of HIV-program in the Bamenda Health District of the North West Regions of Cameroon; the major challenges of the difficulty of the program is lack of motivation of personnel and finances to run the program; in this light therefore, all the research hypotheses were verified and validated as well as all the research questions answered and the research objectives attained.

CONFLICTS OF INTEREST

None.

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