

Availability and Utilization of the Mechanisms for Monitoring and Evaluating Continuing Professional Development in Kenya: A Case of Middle Level Health Training Institutions

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Abstract

In Kenya, middle level health training institutions (MLHTIs) produce the bulk of health workers at continuing professional development (CPD) training level. However, information on whether monitoring and evaluation (M&E) mechanisms for CPD training are available and utilised at MLHTIs in Kenya is scarce and may not be relied on to develop appropriate M&E systems. The main objective of this study was to determine the availability and utilisation of the mechanisms for monitoring and evaluating CPD training among public, private and faith-based MLHTIs in Kenya. The study was guided by two hypotheses: there are no significant differences in the availability of M&E mechanisms for CPD training among institutions in the three categories (public, faith-based, private); and, there are no significant differences in the utilisation of M&E mechanisms for CPD training among institutions in the three categories. The respondents were 375 tutors from public, faith-based and private MLHTIs, selected using a mix of sampling techniques: stratified, purposive, proportionate to size and simple random. Data collection was conducted using a questionnaire, key informant interviews, and desk review. Quantitative data was analysed using Statistical Package for Social Sciences (SPSS), while data from desk review was analysed through a process of data reduction, organization and interpretation. Pearson's chi-square test was used to determine the significant differences ($p < 0.01$) in availability and utilisation of M&E mechanisms, among institutions in the three categories. The study found out that there were significant differences in the availability of M&E guidelines ($\chi^2 = 13.921$, $df = 2$, $p = .001$); questionnaire ($\chi^2 = 20.326$, $df = 2$, $p = .00$); and end of course evaluation form ($\chi^2 = 24.222$, $df = 2$, $p = .00$). There were also significant differences in the utilisation of the end of course evaluation form ($\chi^2 = 24.542$, $df = 2$, $p = .00$). The study concludes that there are significant differences in the availability and utilisation of the M&E mechanisms for CPD training at MLHTIs in Kenya. Capacity building for tutors at MLHTIs in the area of monitoring and evaluation of CPD was recommended.

Key words: Availability, Utilisation, CPD training, M&E mechanism

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Introduction

In recognition of the need for ensuring quality healthcare and updating the knowledge and skills of health workers, the government of Kenya established the continuing professional development (CPD) programme within the Ministry of Health (MoH) in 2001. The mandate of the programme was to coordinate CPD activities in the country. The CPD programme conducted a rapid needs assessment study in 2004 to assess the training needs of health workers within the health training institutions, NGOs and other stakeholders (MoH, 2004). They found out that there was inadequate information to inform policy formulation on CPD training, specifically at middle level health training institutions. It was also not clear whether the available mechanisms for monitoring and evaluation of CPD training at middle level health training institutions were utilised. This paper presents the results of a study conducted in public, private and faith-based middle level health training institutions in Kenya, to determine the availability and utilisation of the mechanisms for monitoring and evaluation of CPD training.

Continuing Professional Development (CPD)

Continuing professional development (CPD) is defined as a continuous process, outside formal undergraduate and postgraduate training, which enables health workers to maintain and improve standards of practice and care through training and development of knowledge, skills, ethical attitudes and behaviour (Ndege, 2005). It is a process of lifelong learning which enables professionals to update their skills and knowledge (Magginson and Whitaker,

2007). The ultimate objective of CPD is to improve the outcomes of healthcare (Nahrwold, 2005). For instance, CPD training helps to improve patient care, and ensure that health professionals maintain and improve the competences inherent in their work that cover wider domains of professionalism (e.g. medical, managerial, social and personal subjects) needed for high quality professional performance (Tennant and Field 2004, in Bjork, Torstad, Hansen and Samdal, 2009; Brown and Belfield, 2002). CPD training is commonly focused on the short-term up-skilling of the health workers mainly through delivery of short courses and seminars.

Rationale for Monitoring and Evaluation of CPD

With the growing concerns about the effectiveness of CPD training and increasing competition for resources, monitoring and evaluation of CPD is needed to assess changes in instructor's knowledge, skill levels, and behaviour, as well as to document changes in programme practices and learners' outcomes (Kutner, Sherman, Tibbetts, 1997; and Condelli, 1997). The core mechanisms for monitoring and evaluation of CPD training include: guidelines for M&E; tools and methods for data collection and analysis; sources of data; frequency of data collection and reporting; budget allocation for M&E; and management structure for M&E (Afseda, 2004).

Monitoring and evaluation of CPD training should focus on: what the participants learned; how they use what they learnt, the results/effect of learning; and the timeline for achieving outcomes (Training & Development Agency for Schools, 2007).

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Materials and Methods

This was a descriptive cross-sectional study, targeting middle level health training institutions (MLHTIs) in Kenya. The sample size was calculated using EPI Info, version 3.3.2 of 2005. Using the population size of 689 tutors and maximum variability of 50% and error of 5% at 99% confidence interval (C.I), the minimum sample size calculated was 338. However, the actual sample size included 375 tutors (respondents) from public, faith-based and private MLHTIs.

The respondents were selected using a mix of sampling techniques: stratified, purposive, simple random and proportionate to size. Using simple random and proportionate to size sampling, 17 public institutions and 15 faith-based nursing training institutions were selected. All the two (2) private nursing training institutions were selected purposively. Hence, a total of 34 (72%) out of the forty seven (47) middle level health training institutions participated in the study. Within the selected institutions, the study concentrated on departments which were annually training 300 and above health workers, at CPD level. This selection criterion was based on the CPD guidelines of the Ministry of Health in Kenya which stipulated that institutions should strive to train at least 300 health workers at CPD level annually. Based on this selection criterion, two departments were selected: (i) Nursing (ii) Environmental Health Sciences. The Environmental Health Sciences departments which met the selection criterion were available in two (2) Kenya Medical Training Colleges namely, Nairobi Medical Training Centre (MTC) and Machakos MTC, both of which were in public category. There were no other institutions which met the criterion, hence

both institutions were purposively selected. In total, there were 42 tutors teaching in the Environmental Health Sciences, and all of them were purposively selected for interview; 28 tutors from Nairobi MTC and 14 tutors from Machakos MTC.

Using proportionate to size sampling, tutors in each of the selected public and faith-based nursing institutions were selected. Proportionate to size sampling was used to select strata sample sizes which were proportional to the population sample size. Two hundred and thirty five 235 (50%) out of a total of 466 tutors from the public institutions, 125 (60%) out of 208 tutors from the faith-based institutions, and fifteen 15 (100%) tutors from the private institutions were interviewed. The total number of tutors interviewed was 375, which represented 54% of all (689) tutors in the three institution categories (public, private and faith-based). To verify the data, 33 heads of department and 34 principal tutors were purposively included in the study as key informants.

Data collection was done using a questionnaire, key informant interviews, and desk review. Quantitative data was analysed using Statistical Package for Social Scientists (SPSS), while data from desk review and key informant interviews was analysed through a process of data reduction, organization and interpretation. Pearson's chi-square test was used to determine the differences in availability as well as utilisation of M&E mechanisms among institutions in the three categories (public, private, faith-based). The variables which showed significant differences were subjected to multivariate analysis using binary logistic regression.

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Results

Characteristics of the Respondents

Out of the 375 respondents (tutors, 164(43.7%) were male while 211(56.3%) were female. Of those interviewed, 167(44.5%) were between 31-40 years of age, 145(38.8%) were aged 41-50 years, while 42(11.2%) were over 50 years. In terms of highest education level attained, 36% (135) of the respondents were bachelor's degree holders, 32% (120) diploma holders, 19.2%(72) higher diploma holders. It was only 12.8%(48) of the respondents who were master's degree holders. With regard to length of service, 33.1% (124) of the respondents had worked as tutors for 6-10 years, 32.5 %(122) had served for 1-5 years, while 21 %(79) had 11-15 years of service.

The following were the study results.

Availability and Utilization of the M&E Mechanisms

CPD Training

The common areas of CPD training among public, private and faith-based middle level health training institutions in Kenya were: KEPI ($p=0.041$), home based care ($p=.000$), family planning ($p=.000$), HIV/AIDS ($p=.015$), and STI ($p=.387$).

Training Needs Assessment for CPD

Training needs assessment (TNA) was done before development of CPD training curricula in most of the institutions within the private and public categories, compared to the institutions in the faith-based category ($p=.000$).

Table 1: Characteristics Of The Respondents

Variable	Characteristic	Number of respondents	Percentage
Sex of the tutor	Male	164	43.7
	Female	211	56.3
Age group of the tutor	≤30 years	20	5.5
	31-40 years	167	44.5
	41-50 year	145	38.8
	>50 years	43	11.2
Length of service	1-5 years	122	32.5
	6-10 years	124	33.1
	11-15 years	79	21
	16-20 years	40	10.7
	>20 years	10	2.7
Highest level of education	Diploma	120	32.0
	Higher diploma	72	19.2
	Bachelor degree	135	36.0
	Master degree	48	12.8

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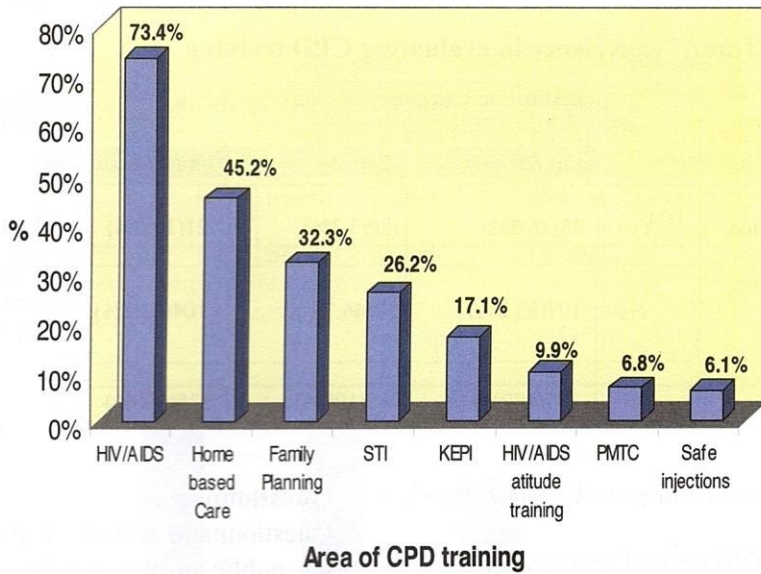


Figure 1: Area of CPD training

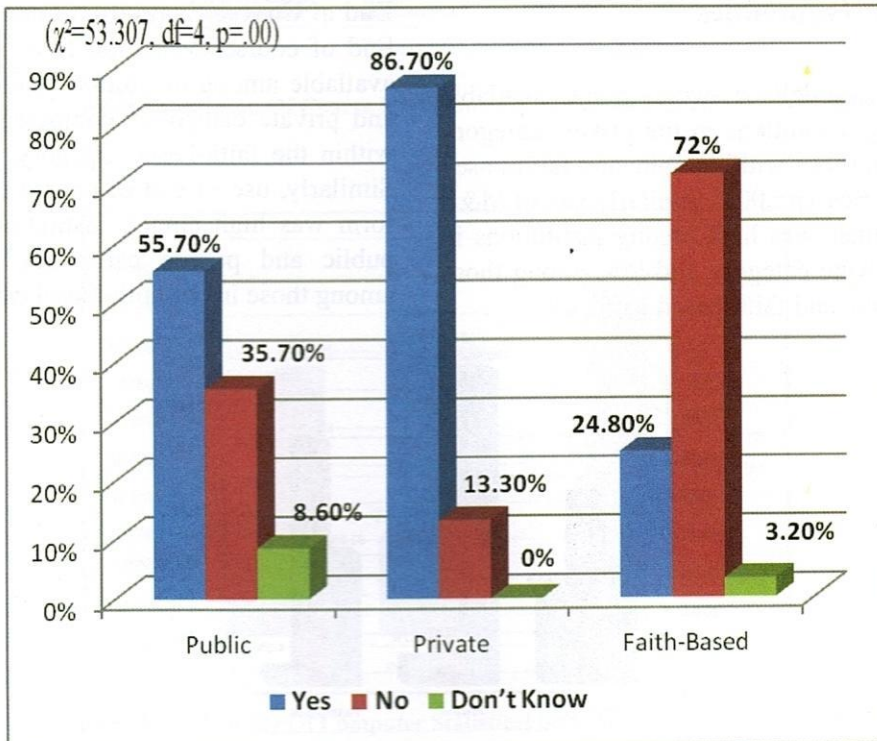


Figure 2: Training needs assessment for CPD

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Table 2: Tutors' experience in evaluating CPD training

		Institution category			Statistical test
		Public	Private	Faith based	
Tutors' experience in evaluating CPD training	Yes	38(16.2%)	8(53.3%)	21(16.8%)	$\chi^2=13.349$ 2df $p<0.01$ [.001]
	No	197(83.8%)	7(46.7%)	104(83.2%)	
Total		235(100%)	15(100%)	125(100%)	

Tutors' Experience in Evaluating Cpd Training

Majority of the tutors didn't have experience in evaluating CPD training. However, for those who had experience, majority were in private institutions ($p=.001$).

Questionnaire

Questionnaire was more prevalent among the public institutions than in private and faith-based institutions ($p=.000$). However, use of a questionnaire among institutions in the three categories was low.

M&E Guidelines

M&E guidelines were more available among institutions in the private category than in those within public and faith-based categories, ($p=.001$). Similarly, use of M&E guidelines was high among institutions in the private category and low among those in public and faith-based categories.

End of Course Evaluation Form

End of course evaluation form was more available among institutions within public and private categories compared to those within the faith-based category, ($p=.000$). Similarly, use of end of course evaluation form was high among institutions within public and private categories, and low among those in the faith-based category.

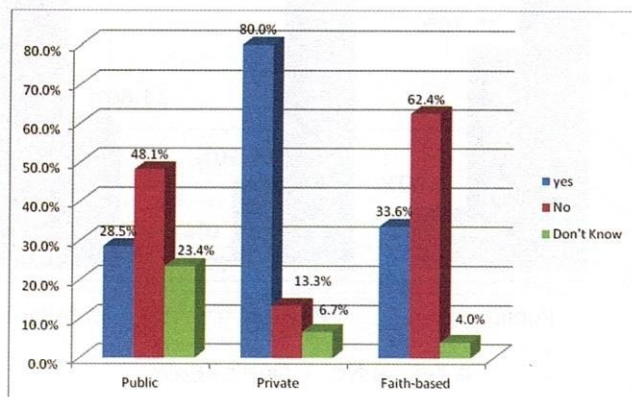


Figure 3: Availability Of M&E Guidelines, ($X^2=13.921$ Df=2; $P<0.01$; [0.001])

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Table 3: Availability Of A Questionnaire

		Type of institution			Statistical test
M&E mechanism	Response	Public	Private	Faith based	
Availability of questionnaire	Yes	82(35%)	4(26.7%)	16(12.8%)	$\chi^2=20.326$ df=2 p<0.01 [0.00]
	No	153(65%)	11(73.3%)	109(87.2%)	
Total		235(100%)	15(100%)	125(100%)	

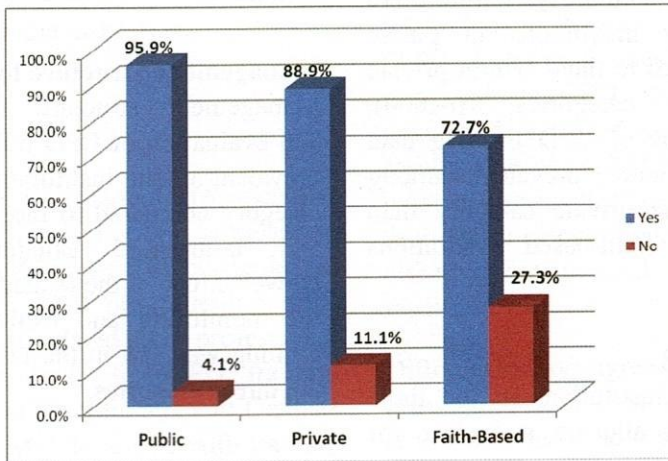


Figure 4: Use Of End Of Course Evaluation Form, ($X^2=24.542$, Df=2, $P<0.01$, [P=0.00])

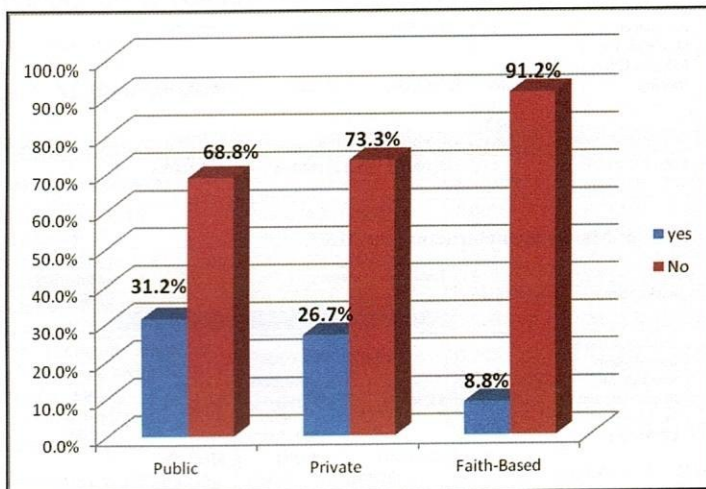


Figure 5: Availability Of Computer Statistical Software, ($X^2=22.79$, Df=2, $P<0.01$, [0.00])

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Sources of CPD Training Data

Course participants were a source of data on CPD training in the majority of the institutions in public and private categories, compared to those within the faith-based category, ($p=.000$).

Computer Statistical Software for Data Analysis

Computer statistical software (i.e. SPSS and Epi Info) for data analysis were more available among institutions in public category compared to those within private and faith-based categories, ($p=.000$). However, analysis of CPD training data manually was more prevalent among institutions in the private category than in public and faith-based institutions ($p=.000$).

Budget for M&E

Majority of the institutions in the three categories didn't allocate a budget for

monitoring and evaluation of CPD training. For those where a budget was allocated, the proportion ranged between 0.2% and 0.5% of the total annual budget. Lack of budget allocation for M&E was more prevalent among institutions in private and faith-based categories compared to those within the public category, ($p=0.006$). Similarly, use of the budget for monitoring and evaluation of CPD training was low in the institutions within the three categories.

Management Structure for M&E

Management structure for monitoring and evaluation of CPD training was more prevalent among institutions in the private category compared to those within public and faith-based categories ($p=.000$). However, use of the management structure for monitoring and evaluation of CPD training was low in the institutions within the three categories.

Table 5: Budget allocation for M&E

M&E mechanism	Response	Institution category			Statistical test
		Public	Private	Faith-based	
Institution has budget allocation for M&E of CPD training	Yes	69(29.5%)	3(20%)	28(22.4%)	$\chi^2=14.264$ df=4 $p<0.01$ [0.006]
	No	123(52.1%)	12(80.0%)	86(68.8%)	
	Don't know	43(18.4%)	0%	11(8.8%)	
Total		235(100%)	15(100%)	125(100%)	

Table 6: Management structure for M&E

M&E mechanism	Response	Institution category			Statistical test
		Public	Private	Faith-based	
Institution has a management structure for monitoring and evaluation of CPD training	Yes	85(36.4%)	8(53.3%)	48(38.4%)	$\chi^2=22.691$ df=4 $p<0.01$ [0.00]
	No	82(34.6%)	3(20.0%)	65(52.0%)	
	Don't know	68(29.0%)	4(26.7%)	12(9.6%)	
Total		235(100%)	15(100%)	125(100%)	

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Summary of Multivariate Analysis

Multivariate analysis using binary logistic regression was used to make inferences. The results confirmed that M&E guidelines were unlikely to be available among institutions in the public category (OR=0.27, CI-95 % (0.07–0.99). Where the guidelines were not available, it was because M&E was not given emphasis when CPD training was initiated; resources for M&E were lacking; and there was no designated unit for coordinating CPD training in the institution.

Discussion

According to the Kenya Medical Association (2005), training needs assessment (TNA) and development of curricula are prerequisites in CPD programming. This requirement is stipulated in the professional regulatory standards for CPD training (Kenya Medical Practitioners and Dentists Board, 2009). Middle level health training institutions in Kenya conduct TNA before development of training curricula. They meet the requirements of the professional regulatory authorities in the country.

M&E guidelines are an invaluable resource for tracking CPD activities and guiding subsequent evaluations (CPD Core Competences Updates, 2009). Unavailability of the M&E guidelines in most of the public and faith-based institutions is precipitated by lack of budget allocation and designated coordination units for monitoring and evaluation of CPD activities. This limits effective monitoring and evaluation of CPD activities at middle level health training institutions in Kenya. According to Afseda (2004), Clear guidelines on how to monitor and evaluate CPD should not only be developed, but used as well in measuring results. Low use of M&E guidelines among most of the institutions in the public and faith-based categories is an impediment to effective measurement of the CPD training results.

Different authors agree that a questionnaire is a common tool for collecting data on CPD activities (Best and Eaton, 2005; Curran and Lisa, 2005; Forbes and Lan, 2007). Curran et al (2005) stresses on the need to a questionnaire since it can be formulated with ease. Even though a questionnaire was

Table 7: Multivariate analysis

Dependent variable	Independent variable	P-value	OR (95% CI)
Use of questionnaire	Public, faith based institution	0.511	0.40 (1.24 – 13.06)
		0.158	1.10 (0.31- 3.86)
Availability of M&E guidelines	Public, faith based institution	0.00**	0.27 (0.07 – 0.99)
		0.002	0.34 (0.09 – 1.28)
Availability of end of course evaluation form	Public, faith based institution	0.577	2.00 (0.69 – 5.82)
		0.011	0.64 (0.215 – 1.96)
Course participants as source of CPD training data	Public, faith based institution	0.092	0.89 (0.25 – 3.26)
		0.003	0.36 (0.10 – 1.38)
Use of computer statistical software to analyse CPD training data	Public, faith based institution	0.703	3.50 (0.95 – 12.89)
		0.110	0.84 (0.20 – 3.54)
Analysing CPD training data manually	Public, faith based institution	0.031	0.65 (0.18 – 2.39)
		0.001	0.32 (0.08 – 1.20)
Preparation of CPD training progress reports	Public, faith based institution	0.021	0.59 (0.16 – 2.16)
		0.00**	0.14 (0.04 – 0.56)
Tutors' experience in evaluation of CPD training	Public, faith based institution	0.001	0.46 (0.16 – 1.35)
		0.002	0.48 (0.16 – 1.47)

** P<0.01

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available in most of the public institutions, its use among institutions in the three categories (public, faith-based and private) was low, hence could result to ineffective monitoring and evaluation of the CPD activities.

Brown et al (2002) and Kirkpatrick (1959) underscore the importance of conducting an evaluation at the end of each CPD session, to determine whether learning has taken place. End of course evaluation form is the common tool used to evaluate training at the end of the course. High utilisation of the end of the course evaluation form, in most of the institutions within public and private categories, aided decision making and review of the CPD courses, to improve quality and delivery approaches.

Course participants' feedback is needed for review of the CPD activities (Best and Eaton, 2005; Brown and Belfield, 2002). CPD programmes should utilise feedback from participants to improve the quality of training. Majority of public and private institutions had course participants as a source of CPD training data. Data analysis was done manually, and it is time consuming on the part of the tutors, hence, the need to build their capacity in computer statistical software e.g. SPSS, EPI Info.

Kutner et al (1997) pointed out the need for a management structure with a role to track CPD programme activities. The M&E management structure provides basis for monitoring and evaluation of the CPD activities and budget. However, among institutions in the three categories (public, faith-based and private) where M&E management structure for CPD was available, its utilisation to monitor and evaluate CPD activities and budgets was low. An M&E management structure should

comprise of a coordinated team including the head of the institution, head of CPD unit, and a committee involving the CPD training coordinator and faculty members.

Conclusion

There are significant differences in the availability and utilisation of the mechanisms for monitoring and evaluation of CPD training at middle level health training institutions in Kenya. M&E mechanisms are more available among institutions in public and private categories compared to those in the faith-based category. The most available M&E mechanisms among institutions in the three categories were M&E guidelines, questionnaire, end of course evaluation form, and computer statistical software. The least available M&E mechanism among institutions in the three categories is the budget for monitoring and evaluation of CPD training. Utilisation of M&E mechanisms for CPD training at middle level health training institutions in Kenya is low. The least utilised M&E mechanisms among institutions in the three categories are questionnaire, computer statistical software and budget for monitoring and evaluation of CPD training.

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