ORIGINAL ARTICLE

Assessment of Core and Functional Competencies of Technical Personnel of the Center for Health Development Calabarzon, Philippines

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ABSTRACT

Objective. To assess the competency levels of the technical staff of the Center for Health Development Calabarzon (CHD 4A) to inform the development of a human resource management plan.

Methods. A cross-sectional assessment design to determine the CHD 4A technical staff's competency level was utilized. The team from the College of Public Health, University of the Philippines Manila invited all the CHD 4A technical staff to complete a self-assessment using the Learning and Development Needs Assessment Tool (LDNA) (version 3-45), rating their perceived competency and the level of importance to their functions on core and functional competencies stipulated in the Department of Health Compendium of Competency Standards. Gaps were identified by comparing perceived competency levels with a predetermined standard for each agency's salary grade or position.

Results. All 67 technical staff took part in the assessment. Entry- and senior-level professionals had minimal deviations from predetermined standards, with gaps in quality service focus and teamwork for the former and planning and political savvy for the latter. In contrast, mid-career professionals had larger gaps in magnitude and number than entry- and senior-level staff – the largest being on results orientation – reflective of newly-promoted staff's adjustment period. Of note, these gaps were based on the prevailing competency standards in force at the time of assessment in 2015. Findings may need to be revisited when the agency updates the core and functional competency standards.

Conclusion. The participants perceived core and functional competencies as important, with the level of perceived importance increasing as the salary bracket increases. Core competency gaps were widest in integrity and quality service focus. Simultaneously, results orientation, and planning and organizing were the functional competencies that registered the widest gap and prioritized. Training needs assessments should be conducted in times of change to ensure an organization's training programs' relevance and to develop peak-level employee performance.

Key Words: in-service training, staff development, educational needs assessment, Philippines

INTRODUCTION

The Department of Health (DOH) is the steward of health policies and regulations at the national level but is faced with numerous challenges that impede progress towards universal health coverage. These challenges include health system fragmentation, limitations in health care accessibility, and international migration of competent health personnel – challenges that boil down to the lack of competent

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management and infrastructure at all levels.[1,2] In 2004, the executive branch of the Philippine government directed all line agencies to undergo rationalization of its human health resource under Executive Order No. 336, also known as the rationalization program, to improve public service delivery by "directing a strategic review of the operations and organizations of the Executive Branch and providing options and incentives for government employees who may be affected by the rationalization of the functions and agencies."[3] One of its directives was preparing a rationalization plan per executive department, which required the inclusion of the proposed staffing changes within the department and the organizational and human resource development strategies that needed to be implemented.

After stakeholder consultation, the DOH identified a set of agency competencies for its staff under this Executive Order. These include organizational commitment, integrity, quality service focus, teamwork, stewardship of resources, self-development, and attention to communication. The Center for Health Development Calabarzon (CHD 4A) wanted to have a basis for its strategic plan for human resource development, thus requested for a third-party competency assessment of their staff in 2015 as a prelude to the development of a customized training package. CHD 4A did a preliminary core competency assessment of all 176 employees, but the agency wanted to further evaluate its personnel's core and functional competencies. Of the 176 employees, 67 (38.1%) were classified as technical personnel, while the rest (109 or 61.9%) were classified as administrative staff. The competency assessment of the CHD 4A technical staff was conducted separately, which is the focus of this report.

A needs assessment is a critical component of program planning before conducting any health education or training intervention for human resource development to identify gaps in the staff's skill set that negatively affect their performance.[4,5] Training and development for human resources can improve competencies, which are appropriate combinations of related knowledge, skills, and attitudes affecting staff roles and responsibilities in an organization.[2,6]

This project aimed (1) to assess the perceived level of importance of the core and functional competencies; and (2) to determine competency gaps of the technical staff of CHD 4A as a basis for developing a human resource plan.

METHODS

Assessment Design

This training needs assessment utilized a descriptive, cross-sectional design. Complete enumeration was used as all the 67 CHD 4A technical staff were invited to participate; the response rate was 100%.

Instrumentation

A self-administered questionnaire developed by DOH and the Development Academy of the Philippines (DAP) known as the Learning and Development Needs Assessment Tool (LDNA) (version 3-45) was used as the tool for data collection, which was presented to a core group of CHD 4A managers for approval before use. The tool required participants to perform a self-assessment on the core and functional competencies for DOH personnel, as stipulated in the DOH Compendium of Competency Standards.

The questionnaire for the technical staff was divided into three sections: (1) the demographic profile of the employees in terms of position, salary grade, and cluster; (2) self-assessment for core competencies (i.e., organizational commitment, integrity, quality service focus, teamwork, stewardship of resources, self-development and attention to communication); and (3) self-assessment for functional competencies (i.e., coaching and mentoring, developing people, managing change, managing conflicts, managing information, managing performance, planning and organizing, political savvy, project and program management, resource management, results orientation, and technical expertise).

Employees were asked to rate their competency level for each core and functional competency using a five-point Likert Scale ranging from A (lowest) to E (highest). These letters were then assigned numerical scores, as follows: Level A (Learning) = 1, Level B (Applying) = 2, Level C (Proficient) = 3, Level D (Expert) = 4, and Level E (Shaping) = 5.

The technical staff were also requested to rate the perceived importance of each of the core and functional competencies by selecting the most appropriate rating using the following criteria:

L = Low importance (needed for job success; utilized 10-40% of the time)
M = Moderate importance (essential to job success; difficult but not impossible to do the job without it; utilized 41-60% of the time)
H = High importance (critical to job success; impossible to do the job without it; utilized 61-90% of the time)

Each rating (low, moderate, high) was assigned a numerical rating of 1, 2, and 3, respectively.

Data Collection

Data collection was done during a meeting organized by the agency for all the technical staff of CHD 4A. Before the session was formally started, the researchers were given an hour to conduct the survey. A few minutes were devoted to explaining the survey's purposes and nature and soliciting and answering questions. A copy of the informed consent form was then distributed and discussed with each technical staff present during the first day of the meeting, who signed and submitted the researchers' consent form. A handful of technical staff could not attend the first day of the meeting but were able to participate in the second-day survey. The anonymity of participants and confidentiality of the data collected were maintained – i.e., no names were collected on the TNA forms, the forms were administered

and handled by the project proponents, and CHD 4A did not have any access to the raw data but were only provided the aggregate results.

Data Analysis

Frequency distributions and percentages were used to determine the distribution of the employees according to their demographic profile.

The DOH grouped salary grades into brackets, from entry-level professionals up to senior-level positions. Salary Grades 1 to 9 fall under Salary Grade Bracket (SB) 1; Salary Grades 10 to 14 under SB 2; Salary Grades 15 to 17 under SB 3; Salary Grades 18 to 24 under SB 4; and Salary Grades 25 and above under SB 5. The ideal standards for the levels of competencies per core and functional competency for each staffing position set by the DOH was multiplied by the number of the participants belonging to each position within an SB and were subsequently subtotaled to reach the ideal collective competency score per SB. For each competency and within an SB, the total of the perceived competency levels for all participants in that SB was subtracted from the ideal collective competency score to reach a numerical figure to quantify the gap per SB for a specific competency.

Therefore, positive scores indicate no perceived gaps between the actual (perceived) and ideal competency levels of the DOH staff; higher scores indicate better collective performance. Negative scores indicate that the DOH staff's perceived competency levels are collectively lower than the ideal, indicating a competency gap, whose magnitude increases with mathematical negativity (i.e., the higher the number with a negative sign, the more significant is the perceived gap in competency).

Frequencies of each rating (low, moderate, high) were computed to quantify the perceived level of importance for each core and functional competency.

The results of the quantitative analysis were presented to selected representatives of CHD 4A in a validation meeting.

RESULTS

Distribution of Technical Staff in terms of Salary Grade

Sixty-seven technical staff employees participated in the needs analysis. As shown in Table 1, the salary grade (SG) of the participants, which is a predetermined compensation level set by the government for each position within an organization[7], ranged from 3 to 25, with salary grade 18 having the most significant number of participants (n=18, 26.9%). The pie chart in Figure 1 shows that most participants were mid-career level professionals under SB 4 and SB 3.

Perceived Level of Importance of Core Competencies

The participants' levels of importance for each competency are seen in Tables 2 (core competencies) and 3 (functional competencies), classified based on SB. Entry-level personnel (SB 1) rated most core competencies as moderately important, while mid-career and senior-level professionals rated most core competencies as highly important. Three respondents did not indicate their salary grades. Some respondents did not rate the perceived importance of specific competencies, as seen in cases where the respondents' total number is less than 67.

Table 1. Distribution of assessment participants, by salary grade

Salary Grade	n	%
3	1	1.49%
4	5	7.46%
9	4	5.97%
15	11	16.42%
17	3	4.48%
18	18	26.87%
19	2	2.99%
20	8	11.94%
21	3	4.48%
23	6	8.96%
24	2	2.99%
25	1	1.49%
Did not answer	3	4.48%
Total	**67**	**100%**

Table 2. Distribution of assessment participants, by perceived level of importance of core competencies, by salary grade bracket

	Salary Grade Bracket			
	SB 1	SB 3	SB 4	SB 5
Organizational Commitment (n = 62)				
Low	1.6%	–	1.6%	–
Moderate	9.7%	8.1%	16.1%	–
High	4.8%	14.5%	41.9%	1.6%
Integrity (n = 62)				
Low	3.2%	–	–	–
Moderate	4.8%	3.2%	19.4%	–
High	8.1%	19.4%	40.3%	1.6%
Quality Service Focus (n = 60)				
Low	–	–	–	–
Moderate	8.3%	3.3%	10.0%	–
High	6.7%	20.0%	50.0%	1.7%
Teamwork (n = 61)				
Low	–	–	–	–
Moderate	8.2%	4.9%	8.2%	–
High	8.2%	18.0%	50.8%	1.6%
Stewardship of Resources (n = 62)				
Low	1.6%	–	–	–
Moderate	9.7%	11.3%	22.6%	–
High	4.8%	11.3%	37.1%	1.6%
Self- Development (n = 62)				
Low	3.2%	–	–	–
Moderate	8.1%	4.8%	11.3%	–
High	4.8%	17.7%	48.4%	1.6%
Attention to Communication (n = 60)				
Low	3.3%	–	–	–
Moderate	8.3%	10.0%	13.3%	–
High	5.0%	13.3%	45.0%	1.7%

Perceived Level of Importance of Functional Competencies

Table 3 shows a similar relationship between the perceived level of importance and the respondents' salary grade bracket, as in Table 2 (core competencies). Participants from SB 1 perceived the functional competencies as moderately important, while overall, participants from SB 3 and SB 4 rated the functional competencies as highly important.

Table 3. Distribution of assessment participants, by perceived level of importance of functional competencies, by salary grade bracket

	Salary Grade Bracket			
	SB 1	SB 3	SB 4	SB 5
Coaching and Mentoring (n = 60)				
Low	5.0%	–	1.7%	–
Moderate	6.7%	3.3%	18.3%	–
High	5.0%	20.0%	38.3%	1.7%
Coordination and Networking (n = 60)				
Low	1.7%	1.7%	–	–
Moderate	6.7%	5.0%	15.0%	–
High	6.7%	16.7%	45.0%	1.7%
Developing People (n = 58)				
Low	1.7%	1.7%	1.7%	–
Moderate	8.6%	10.3%	20.7%	–
High	5.2%	10.3%	37.9%	1.7%
Managing Change (n = 60)				
Low	3.3%	3.3%	3.3%	–
Moderate	8.3%	13.3%	16.7%	–
High	5.0%	6.7%	40.0%	1.6%
Managing Conflict (n = 62)				
Low	1.6%	1.6%	1.6%	–
Moderate	8.1%	8.1%	17.7%	–
High	6.0%	12.9%	40.3%	1.6%
Managing Information (n = 59)				
Low	1.7%	3.4%	1.7%	–
Moderate	8.5%	6.8%	15.2%	–
High	6.8%	11.6%	42.4%	1.7%
Managing Performance (n = 59)				
Low	1.7%	1.7%	1.7%	–
Moderate	8.5%	8.5%	18.6%	–
High	6.8%	11.9%	39.0%	1.7%
Planning and Organizing (n = 57)				
Low	1.8%	5.3%	1.8%	–
Moderate	8.8%	1.8%	14.0%	–
High	7.0%	15.8%	42.1%	1.8%
Political Savvy (n = 59)				
Low	1.7%	5.1%	6.8%	–
Moderate	8.5%	11.9%	23.7%	–
High	6.8%	6.8%	27.1%	1.7%
Program Planning Management (n = 59)				
Low	3.4%	1.7%	_	–
Moderate	6.8%	11.9%	11.9%	–
High	6.8%	10.2%	45.8%	1.7%
Resource Management (n = 60)				
Low	1.7%	5.0%	1.7%	–
Moderate	10.0%	8.3%	15.0%	–
High	5.0%	10.0%	41.7%	1.7%
Results Orientation (n = 58)				
Low	1.7%	3.4%	–	–
Moderate	10.3%	10.3%	12.1%	–
High	5.2%	10.3%	44.8%	1.7%

Competency Gaps

Table 4 shows the quantified competency gaps per salary grade bracket for technical staff. Negative values indicate a competency gap between the ideal score and the bracket's perceived competency level; a value of 0 indicates no gap. Positive values indicate that the perceived overall level of competency within the SB exceeds the standard set by the DOH. Because there were no predetermined competency standards for specific positions and salary grades, some gaps could not be assessed based on these criteria – this is indicated as "n.a." in the table.

Core Competencies

Deviations from the ideal core competency standards for SB 1 are minimal – the only gaps identified were those for Quality Service Focus and Teamwork. Competency gaps on integrity and quality service focus were seen for participants under SB 3. In contrast, participants under SB4 registered the highest competency gap regarding attention to communication, followed by organizational commitment, self-development, integrity, and quality service focus. No competency gap was identified for participants in SB 5. Over-all, competency gaps among the technical staff of CHD 4A were found in the following core competencies: integrity, quality service focus, organizational commitment, attention to communication, and self-development.

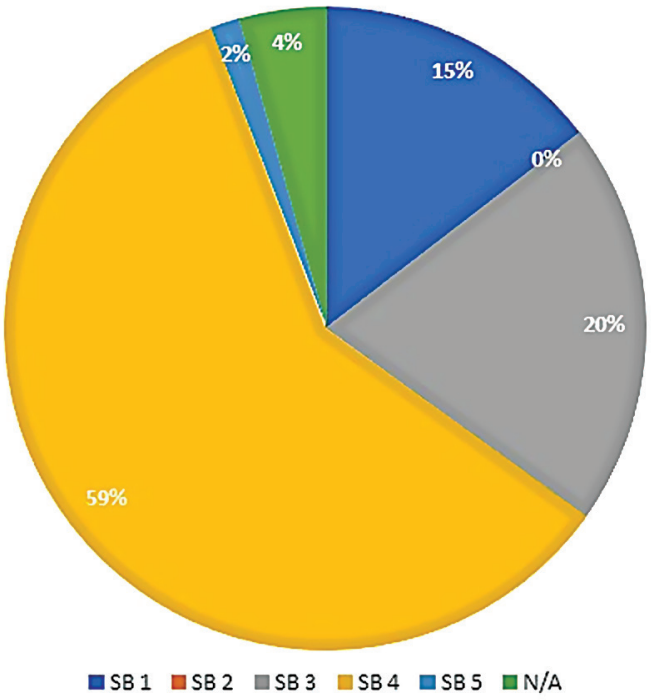

Figure 1. Distribution of technical staff according to salary bracket (SB).

Table 4. Competency gaps among technical staff

Competencies	Salary Grade Bracket				Total
	SB 1	SB 3	SB 4	SB 5	
Core competencies					
Organizational Commitment	1	0	−16	1	−14
Integrity	1	−10	−11	0	−20
Quality Service Focus	− 1	−10	−11	0	−20
Teamwork	− 1	5	12	2	18
Stewardship of Resources	0	7	− 4	1	4
Self- Development	0	3	−14	1	−10
Attention to Communication	1	6	−21	0	−14
Functional competencies					
Coordination and Networking	n.a.	−13	n.a.	n.a.	−13
Managing Change	n.a.	−17	n.a.	n.a.	−17
Managing Conflict	n.a.	n.a.	n.a.	n.a.	n.a.
Managing Information	n.a.	n.a.	n.a.	n.a.	n.a.
Managing Performance	n.a.	n.a.	− 4	n.a.	− 4
Planning and Organizing	n.a.	−20	−34	− 1	−53
Political Savvy	n.a.	n.a.	− 3	− 1	− 4
Program Planning Management	n.a.	−15	n.a.	n.a.	−15
Resource Management	n.a.	n.a.	n.a.	n.a.	n.a.
Results Orientation	n.a.	−23	−38	n.a.	−61
Technical Expertise	n.a.	− 9	−29	n.a.	−38

n.a. = No prescribed standard/ideal level of performance for competency

Functional Competencies

Mid-career professionals had larger and different gaps as compared to entry-level professionals. For SB 3, competency gaps in results orientation, planning and organizing, managing change, program planning, and management and coordination and networking were identified. Competency gaps in results orientation, planning, and organizing and technical expertise were found among participants in SB 4. The most significant gap identified for both SB 3 and SB 4 belongs to results orientation. SB 5 professionals showed similar magnitudes of gaps as entry-level professionals.

DISCUSSION

Participants with salary grade 18 are mid-career staff, who constitute most of the personnel in the office. This enabled the team to identify the competency levels and gaps among the mid-career staff, who would later become the organization's senior managers. Identification of mid-level managers' capabilities will enable the organization to address their training needs, making them prepared to take on the demands of their roles and eventually lead others.[8]

The two core competencies that were given the highest importance ratings were Teamwork and Quality Service Focus. This shows that the employees hold both their co-workers and clients, respectively, in high regard. A training needs assessment for interprofessional skills done in the context of Swiss primary health care showed similar results – interviewees, who were an assortment of health professionals, prioritized skills focusing on intra-team relationships and patient-provider interactions/service delivery.[9]

During the consultative meeting to validate the TNA results with the CHD 4A, Planning and Organizing were an area for improvement based on previous assessments within the office. This may have been due to high expectations for competency levels based on organizational standards and the inclusion of the "introduction of new methods of planning, evaluating and monitoring" as a criterion for high competency levels.

The marked increase in the number and magnitude of gaps from entry-level to mid-career level professionals and the subsequent decrease for senior-level professionals reflects a gap in the tasks that the staff used to perform under their old position functions compared to the new ones assessed in this project. In recent years, many mid-career staff had been promoted to managerial positions and were still in the process of adjusting to their new functions and responsibilities. The frequent rotation of these professionals among different divisions may have been a contributing factor as well.

Other countries had identified different competency gaps from those in this project. A skills gap analysis done in South African public health and nursing management found that legal/ethical issues and controlling were the largest competency gaps; the planning gap was relatively smaller. Like the CHD 4A competency gap assessment, the South African analysis identified organizing as one of the largest competency gaps.[10] Another study done in Serbia found performance assessment to have the largest competency gap, followed by team building.[11] In Vietnam, a competency assessment among middle managers of educational institutions were found to be more competent with daily operational matters making sure that the units under them functioned effectively, but competency gaps were more significant with strategic planning; further, the mid-level managers often lacked the training, resources, and power they need to lead and drive changes.[12] It must be noted that competencies are contextually specific to the organization or country of concern – different countries may have other health priorities and, thus, a different set of competencies needed to address them.

This project utilized a survey as a tool for needs assessment, which allowed for straightforward and easier analysis. However, the results were dependent on the response rate; levels of importance and competency levels could not be weighed equally due to an uneven number of responses across the competencies tested. Further analyses may consider conducting the gap analysis both before and after the training intervention, and consider other assessments to complement a survey, such as a focus group discussion and in-depth interviews to provide depth to answers, or perhaps a larger sample of employees.[13] The competencies discussed in this article need to be reconciled with recent updates on the Department of Health competency framework, as multiple versions exist.[14,15] Other countries, such as the United States and Canada, highlight the need for public health training and integration of public health functions in

governmental public health staff's core competencies.[15,16] A set of competencies as specific as those previously mentioned has yet to be developed for public health professionals working in the Philippine context.

Good governance is critical in strengthening health workforce competencies; existing tools to enhance the workforce include training across staff and job descriptions that include requisite competencies.[15] This is especially critical during times of change to ensure that training programs continue to align with organizational needs. These needs, which are the identified competency gaps, can thus be addressed through systematic training – a cost-effective way to develop peak-level employee performance. Proper training and accurate job descriptions may be formed through training need assessment and competency gap analysis, which are context-specific and must therefore be conducted with the desired performance outcomes of the health organization and, subsequently, the health outcomes it seeks to arrive at mind.

Limitations

The tool used in assessing the competency levels of the participants was the Learning and Development Needs Assessment Tool (LDNA) (version 3-45), which had two competency clusters (i.e., core and functional competencies) and five descriptors of proficiency (i.e., ranging from Level A = Learning to Level E = Shaping). This was the older version of the LDNA, and the senior program managers and superiors approved its use in CHD 4A as the LDNA was being revised at the time of the competency assessment. The new version of the LDNA, developed and approved in 2016 and rolled out in 2020, has four competency clusters (i.e., core, organizational, leadership, and technical competencies) and four levels of proficiency descriptors (i.e., ranging from Level 1 = Basic to Level 4 – Expert).[17] The 2016 LDNA tool provides a more detailed mapping of expected competencies per position, particularly for technical competencies, which was not available in the earlier iteration of the tool where competencies were usually mapped per cluster of positions.

Furthermore, descriptors for each competency level have been expanded to include verification (e.g., job description, assessment reports). These differences may preclude comparability of findings from our assessment using the former LDNA tool with any future evaluation using the more recent iteration of the competency assessment tool. This is with the possible exception of some similar competencies between the older (e.g., Integrity, Organizational Commitment, Attention to Communication, Teamwork) and current LDNA tools (e.g., Exemplifying Integrity, Organizational Awareness, and Commitment, Effective Communication Skills, Effective Interpersonal Relations).

This limitation notwithstanding, we argue that from a broader perspective, this paper's potential contribution is not the use or administration of the tool but a snapshot of the perceived competencies of the technical staff of a DOH regional office at a time following rationalization of staffing positions. As there are very few empirical papers on the local human resources for the health situation, particularly those focusing on technical staff competency (as against clinical competency of human resources for health providing direct patient care or service delivery), we believe that there is still value in publishing our findings.

The competency assessment was conducted only once, but the results were presented to the senior managers with some representatives from the participants, who agreed and provided possible explanations for the results. Also, the data collection process utilized was that the assessment was conducted for all the participants on the same day and time. It should have been more appropriate if the data collection was performed separately for participants of a similar level, knowledge, and skills. However, even though the data collection was done in one area, at the same time, the participants were asked to sit together according to their salary grade. The analysis of the technical staffs' perceived level of competency and perceived level of importance for both the core and functional competencies was done by salary bracket, not according to the actual job classification or position of the participants.

CONCLUSION

The survey participants perceived that the core and functional competencies expected of them are essential. The level of perceived importance increases as the salary bracket where the participants were classified also increases. The most significant gaps in core competencies were in areas related to integrity and quality service focus, while results orientation and planning and organizing were the functional competencies that registered the widest gap; thus, have to be given attention in the plan for human resource development.

Training needs assessments should be conducted in times of change to ensure an organization's training programs' relevance and to develop peak-level employee performance. For future TNAs, the revised LDNA (2016 version) should be utilized, and the competencies should be analyzed according to job classification. A mixed-method of competency assessment can be explored, including a focus group discussion among the supervisors and the participants to determine the perceived factors that influenced their competencies.

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Statement of Authorship

All authors participated in data collection and/or analysis, and approved the final version submitted.

Author Disclosure

At the time of writing, Ms. Carreon and Ms. Tiu are employed by the Center for Health Development IV-A. All other authors declare no conflicts of interest.

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