Governance of Teaching Hospitals in Ethiopia: Achieving Alignment in Academic Health Science Centers, 2015.

Case Study of Four Teaching Hospitals in Ethiopia

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A Research Thesis Submitted To Jimma University College of Health Sciences, Department of Health Economics, Management, and Policy for the Partial Fulfillment for the Requirement for Master of Public Health in Health Services Management (MPH-HSM)

June, 2015

Jimma, Ethiopia

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Abstract

Background: *Academic health science centers (AHSCs), today represent a unique fusion of traditional academia, hospital functions, several levels of education, and, above all, patients. They are complex organizations trying to discharge an often conflicting mélange of responsibilities. This complexity has grown in recent years with the increasingly rapid rate of change, stressing both faculty and leadership. There is a paucity of information on how this complex relationships works in Academic Health Science Centers in Ethiopia.*

Objective: *To explore the governance status and alignment across governance, strategy, economics and management of academic health science centers in Ethiopia.*

Method and materials: *Case study was conducted on four selected teaching hospitals in Ethiopia from April 20/2015 to May 10/2015. Interviewer administered structured questionnaires; focus group discussion and in-depth interview guides were used for data collection. Descriptive statistics like frequency tables, graphs descriptive summaries and narrative texts were used to describe the results.*

Result: *Out of the 17 respondents, more than three fourth were male. Only less than half of the respondents perceived that there is fully integrated strategy across all mission and entities. All of the selected teaching hospitals have governing board with defined term of reference. But, only one among the AHSCs under study was governed by a single unified board, while the three remaining AHSCs have two separate governing boards, hospital governing board and university board. Regarding economic alignment, more than half of the respondent reported that their centers use structured methodologies plus explicit funding for strategic priorities across their centers. Concerning the extent to which management structures for clinical activities are integrated, nearly one third of participants responded that there is separate management structure for physicians. The overall alignment is 3.4 and 2.25 for AHSCs with high alignment and AHSCs with low alignment respectively on 1 to 5 scales. Overall AHSCs alignment corresponds with higher levels of alignment in all of the four key dimensions.*

Conclusion: *Though the need for alignment is high among the AHSCs, the overall alignment is low. Therefore, the AHSCs should have to assess the current state of alignment in their institution and develop a definition of success in alignment that is consistent with its unique mission and strategic vision, and then routinely monitor performance against these metrics.*

Key words: *Alignment, academic health science center, Teaching hospital, Governance.*

Acknowledgements

Above all, I would like to thank almighty GOD the Universe for all reasons. I would also thank Jimma University for creating the opportunity. Department of Health Economics, Management and Policy Deserves special thanking for the ownership and coordination of the program. My gratitude goes to my advisors Mr. Negalign Berhanu and Mr. Fikru Tafesse for their invaluable guidance, comments and suggestions as well as for their swift responses to my requests. Last but not least, I would like to forward my appreciation to the respondents and management of the Black Lion Specialized Hospital, Jimma University Specialized Hospital, St. Paul Hospital Millennium Medical College and Hawassa University Referral Hospital, for their unreserved support during data collection.

Contents

Acronyms & Abbreviations

AAHSC: Association of Academic Health Sciences Centers.

AHC: Academic Health Centers

AHSC: Academic Health Sciences Centers

AHSN: Academic Health Sciences network.

AMC: Academic Medical Centers.

CEO: Chief Executive Officer

EHRIG: Ethiopian Hospital Reform Implementation Guideline,

FGD: Focus Group Discussion

HEMP: Health Economics, Management and Policy.

HURH: Hawassa University Referral Hospital.

IPD: Inpatient Department

JUSH: Jimma University Specialized Hospital.

MOE: Ministry Of Education

MOH: Ministry of Health

MPH: Masters of Public health

NIH: National institute of health

OPD: Outpatient Department

RHB: Regional Health bureau

SPHMMC: St. Paul Millennium Medical College

TAH: Tikur Anbessa Hospital

List of Figures

Chapter one: Introduction

1.1. Background

An academic health science centre (AHSC), also known in different countries as an academic health centre (AHC), academic medical centre (AMC), or university medical centre (UMC) is not a single institution, but "a constellation of functions and organizations committed to improving the health of patients and populations through the integration of their roles in research, education, and patient care" (1). An AHSC is comprised of a "medical school, one or more other health profession schools or programs (such as allied health, dentistry, graduate studies, nursing, pharmacy, public health, veterinary medicine), and one or more owned or affiliated teaching hospitals or health systems" (2). Academic health science centers today represent a unique fusion of traditional academia, hospital functions, several levels of education, and, above all, patients. They are complex organizations trying to discharge an often conflicting mélange of responsibilities. This complexity has grown in recent years with the increasingly rapid rate of change, stressing both faculty and leadership (3, 4, 5).

The ability to bring these diverse enterprises actively working together has been the unique strength of the AHSCS as a vehicle of patient care, education, and discovery. Unfortunately, the AHSC has also proved at times to be a frustrating organizational matrix of indecision wrought by different aims and distributed influence, presenting substantial challenges to the success of these institutions. The question of how best to organize the fiduciary and executive management structures of the AHSC continues to be the subject of much interest to those trustees responsible for these complex institutions. Academic health centers have faced well documented internal and external challenges over the last decade, putting pressure on organizational leaders to develop new strategies to improve performance while simultaneously addressing employee morale, patient satisfaction, educational outcomes, and research growth(6).

Hospital leadership and governance arrangements are essential to ensure effective and efficient hospital services that contribute to the health and wellbeing of the population

served. To this end, hospital leaders require a unique set of skills to both manage their organizations and to liaise with external agencies and local community. Governance in health is a cross-cutting theme being increasingly regarded as a salient topic on the development agenda. Good governance is of paramount importance to improving standards of quality and safety (7). There is no "right" governance structure for hospitals and other health care organizations. The structure will be based on the size and complexity of the organization; the very diversity of decision-making structures among the nations' AHSCs underscores the point that successful governance can take a variety of forms (8). According to Wartman's conception, AHSCs generally, fall somewhere between two extremes. At one extreme is a model of full organizational integration where the collective components of the AHSC are led by a single CEO and a common overarching governing board. At the other extreme is a more loosely affiliated model in which the university academic activities, medical school physician practices, and teaching hospital operations are each managed by different leaders and governed by distinct and independent boards. Under that model, integration within an AHSC can be more functional than structural in nature. Functional integration can be thought of as the degree of shared vision, collaborative strategic planning, and transparency in business functions that exists between the clinical and academic elements of a college of medicine and an affiliated teaching hospital, even though the formal organizations may remain distinct business and legal entities (9).

Alignment is the degree to which component parts of AHSCs work together. It is having a leadership team and board who value all of the missions and can develop an integrated strategy supported by a collaborative management team and comprehensive economic relationships. Getting to alignment is part structure, part process, part leadership, and part organizational culture. It means reshaping administrative practices, such as how revenues flow and incentives are awarded, to help units work together productively. But alignment also means changing workplace cultures to promote goal sharing, more openness in decision making, and broader collaboration overall (10).

Full alignment allows AHSCs to act quickly and cohesively toward common goals and to take advantage of opportunities that present themselves, particularly where collaboration is essential (10, 11). A recent study by Souba and colleagues found that

AHSCs with strong alignment between their medical school deans and clinical department chairs were significantly more successful in competing for National Institutes of Health (NIH) research grants compared to lesser-aligned AHSCs (12). Some AHSC leaders believe that alignment requires an integrated structure that incorporates the entire AHSC under a single governance and management mechanism or through a clinical enterprise model closely affiliated with the medical school and university. A unified structure makes it easier to achieve alignment but it does not guarantee success (11).

University hospitals, as defined in the Federal Hospitals Administration Regulation of Ethiopia are hospitals that are accountable to the Ministry of Health or health service delivery and teaching hospitals under a University. The Ethiopian Government gives higher education a central position in its strategy for social and economic development. The country has radically expanded the number of its higher education institutions in the past couple of decades. Many Universities have been engaged in managing large and complex hospitals and likewise, a number of hospitals have been converted into medical schools (13).

Health governance, one of the pillars of a health system has received appreciable attention from the Ethiopian health sector over the past decade. The federal government of Ethiopia through healthcare financing strategy has established legislative framework for enhanced hospital autonomy with authority decentralized to hospitals in areas such as strategy, planning and budget development. To achieve this, there are two groups that make up the governance structure of hospitals:

- The governing body (e.g. board), and
- The chief executive officer and senior managers (14).

Even though teaching hospitals are centers of advanced curative medical services in Ethiopia, according the 2013/2014 annual report of the federal democratic republic of Ethiopian ministry of health (28), they are the least performers when it comes to quality of care and reform implementation as compared to non-teaching public hospitals.

1.2. Statement of the problem

In theory, university health science faculties and teaching hospitals share common interests in education, research and clinical practice. In reality, structural role differences cause significant divergence in the priorities of these institutions. Relationships between universities and healthcare delivery systems carry implicit assumptions of common interests in education, research and clinical practice. Closer inspection reveals significant structural divergence in these interests, and a recent economically driven widening of the gap as universities have focused more attention on teaching (research) and hospitals on clinical services. These changes have increased specialization and competition in research which has made it difficult:

- For clinical academics to compete as researchers
- For health service managers to unreservedly support traditional biomedical models of research.

This is unfortunate as there is an extensive and growing list of problems affecting health care delivery that would benefit from joint approaches in both research and education (15**).**

Healthcare providers need to build fully aligned delivery systems that organize physicians, hospitals, and other key resources to meet the Triple Aim objectives of improved population health, improved patient experience and reduced per capita costs if they are to remain relevant in the coming years. Aggregating, integrating, and aligning physicians is a key step in building the fully aligned delivery system of the future. A key requirement for health system leaders will be the ability to align large numbers of high quality physicians, hospitals, and other resources in a collaborative model to form a delivery system able to provide a competitive offering and to continuously improve outcomes, service and value (16**).**

Integrated health systems will eventually recognize that the artificial organizational distinctions between physicians, hospitals and other health system resources impede successful pursuit of improved population health, customer experience and efficiency. These health systems are poised to become fully aligned delivery systems. This transition

is critical since fully aligned delivery systems can make a key contribution to reducing the nation's health care costs if they are well managed and can achieve meaningful scale to compete in their respective markets. Those who are able to create a successful, fully aligned delivery system have the opportunity to be the leaders in their market for a long time and to make meaningful contributions to improving their community's health (17).

The Ethiopian Federal Hospitals administration Regulation (13) clearly states that university hospitals should ensure that health services are not compromised for training and educational purposes. To make facilities responsive to local needs, mitigate administrative complexities and improve the engagement of communities in hospital management, the government has initiated health facility governance reform by introducing boards for hospitals. Currently, many of the public hospitals, including the University hospitals have established governing boards. However, medical schools and teaching hospitals throughout the country face challenges in balancing their competing missions of providing quality health services, teaching and research. Governance problems and lack of consistent model in the country for managing university hospitals have resulted in poor engagement of staff in reform activities, lack of respecting hospital rules and patient etiquettes and dissatisfaction in both management and staff, limiting their efficiency and effectiveness (27). Even though the numbers of medical schools are radically expanding in Ethiopia, Experiences indicate that as soon as local hospitals convert to teaching hospitals the services quality start to deteriorate. Hence, achieving alignment between teaching hospitals and the medical schools is vital for the achievement of their triple missions. Therefore, this paper will assess whether overall alignment is achieved by optimizing strategic alignment, governance alignment, economic alignment and/or management processes of teaching hospitals and medical schools in Ethiopia and identify their major challenges to achieve overall alignment.

Chapter 2: Literature review

Academic health science centers (AHSCs) are among the largest and most complex organizations, largely because of the formidable diversity in their three traditional, core missions. It is this tripartite mission (patient care, education, and research) that makes not only the operational but also the financial management of AHSCs complex and challenging. There is a perception that a wide variety of academic health center organizational models abound, when in fact only two prototypical models have dominated over the last decades: (1) the fully integrated model, where academic, clinical and research functions report to one person and one board of directors; and (2) the split/splintered model, where the academic and clinical/health system operations are managed by two or more individuals reporting to different governing boards (9).

While appointing a single executive leader of an AHSC is a formidable challenge to the trustees. Among those AHSCs with prestige university status, a strong bias often exists for a highly credentialed academician/physician–scientist, but the balancing perspective to seek out management expertise as well as committed clinical leadership can be overlooked. Although a board or university president may rationalize that the newly appointed academician can delegate running the clinical enterprise to qualified "administrative" subordinates, this provides assurance of neither effectiveness nor balance (6).

The academic reward system can affect the faculty practice, particularly across large, research intensive departments where concerns over clinical productivity and administrative efficiency may become subordinated by academic priorities. Although on occasion the inverse may occur, in general the needs of the clinical enterprise in the single fiduciary and/or one-leader models are more at risk. Similar challenges exist in the "multiple" models. What the multiple models can bring is clarity of purpose to both the academic and clinical business domains. What it does not bring is the unity of voice possible through the single leader and board. Instead, collaboration of the two leaders and the two boards is required. Success dictates that such collaboration exist on the highest order, ideally with both the two board leaders and the two operating executives having

comparable insight and compatible personality sets strengthening the capacity of each to create the balance between their respective governing bodies and that between their operating units (6).

Occasionally, the organization of some academic health science centers cycled between these two models, depending on local economy, health care market trends, university politics or personalities of the leaders involved. Hence, the type of model existing at a given institution reflects a combination of history, politics and economics (9).

Thus, although the issue of one-leader or multiple AHSC models represents important dialogue, the structures themselves provide no assurance of the balance achieved by the most effective AHSCs. How executive leadership is developed, how well it performs, how measures of success are understood, crafted, reported, shared, and monitored, and how trustee awareness and stewardship are exercised are more important to striking the necessary balance. These must be the strategic objectives for AHSC governance (6**).** A unified structure makes it easier to achieve alignment but it does not guarantee success. Some AHSCs with unified governance and management have not achieved alignment. At the same time, there are examples of AHSCs with separate governance and management structures that have been able to forge effective alignment (10).

Findings from a survey of one half of the AAHSC members in 2005 found that in 78% of responding institutions that owned a teaching hospital, the academic health center leader had sole authority over the head of the hospital. Seventy three percent of leaders at institutions that owned a health system said they had sole authority over the head of the system. And 14% of the responding academic health center leaders served as both the academic health center president (equivalent title) and CEO or vice president of the health system or medical center (9).

Darzi argued that "'AHSC' is not a label that should be applied indiscriminately …like 'university hospital' and 'teaching hospital'" and proposed six criteria to determine whether an academic–clinical partnership really formed an AHSC:

- Integrated Governance—this could range from delegated authority through to full mergers.

- Internationally recognized excellence in research and clinical practice (with the concurrent ability to be a leader within the UK).
- Clear integrated funding streams for research and teaching.
- Integrated leadership and career paths.
- Joint programmes which combine research and clinical work.
- Commercial expertise to market research developments and benefit the UK's economy (17).

This would ensure that the AHSC label did not become a term like "university hospital" and "teaching hospital," which are both used loosely and liberally (18).

An AHSC is usually nested within an academic health science network (AHSN), which shares the AHSC's commitment to improving the health of patients and populations through research, education, and patient care, but coordinates an even greater number of functions and organizations to ensure the speedy adoption and diffusion of innovation across a large number of organizations (19-22). Thus, meeting the expectations for AHSCs or AHSNs increasingly depends on partnership working between university medical schools, teaching hospitals, and other healthcare providers in integrating their roles in research, education, and patient care (23).

Misalignment between research and clinical missions and visions at AHSCs is not an uncommon occurrence. When misalignment does occur, it often results in acrimony between and among institutional leadership and governing bodies and can also negatively impact the morale and productivity of faculty and staff. The thesis that alignment can pay significant clinical and economic dividends is supported by the available research. Kirch and colleagues, for example, made a case study of a period of misalignment and realignment at the University of Pennsylvania health system and found that realignment led to significant gains in academic, research, and clinical performance almost immediately after it occurred (24).

In universities, the traditional goals of high research productivity and reputation, and the associated revenue have assumed an even greater importance. This has intensified the normal competitive ethos of research, and moved the field of competition towards topics of explanatory significance and high methodological rigor. In hospitals the pressure for efficiency has increased clinical service demands and brought additional responsibilities for service and budget management. This has eroded the time previously available to clinicians for both research and education. In parallel with these changes, the opinion of many hospital and health service managers of the intrinsic value of research has apparently declined. This university-hospital separation is especially unfortunate at a time when there are increasing concerns about the performance of health care delivery systems. These include the wide variability in healthcare outcomes and costs; the lack of correlation between expenditure and outcomes, and the significant risks of adverse events associated with hospital admission. It is now recognized that many of these problems arise from multifactorial interactions, and that these interactions generate organizational complex adaptive systems that are not easily understood, or managed through traditional hierarchical structures. It is also known that lack of team development in such complex environments is associated with higher mortality, and that this may be part of dysfunctional organizational cultures that may cause recurrent harm to patients (15).

To the up-to-date knowledge of the investigator, there is no published study on the area of academic health science centers governance and alignment. According to the 2014/2015 annual plan document of the federal ministry of health of Ethiopia (28), there are 27 medical schools in the country. However, the management and governance of these medical schools and their corresponding teaching hospitals is seriously challenging. The challenges faced by teaching hospitals in Ethiopia can be summarized into three categories:

Attitudinal problems: - lack of accountability of academic staff to patient care, lack of commitment by academic staff, lack of ownership clinical services by head of academic department, inadequately empowered hospital board and inadequate attention by RHBs towards University Hospitals and considerations that University Hospitals are solely the responsibility of Ministry of Education.

Organizational (Structure-related) problems: - Lack of alignment between teaching and hospital service, lack of clearly established relationship between University boards and hospitals' governing boards, lack of clearly defined roles of MOE and MOH in regard to managing University hospitals, Lack of designated units in Ministry of Education and Ministry of Health towards supporting university hospitals, lack of formal working arrangement between University hospitals and RHBs, Support functions such as Human resource and Finance are under the University central office and hospital CEOs or clinical directors do not have a direct relation to these offices, Prioritization of academic issues as their mission is to excel in teaching not patient care, complete dependence on academic staff for clinical services, ambiguity in staff employment, difficulty in implementing the working hour arrangement set for university staff by ministry of education in the hospital set up, absence of monitoring and support mechanism.

Policy /regulation related problems:-Differential incentive and duty payment between the teaching and non-teaching staff, differences in working hours between university staff and clinicians, healthcare financing reform not fully implemented in University Hospitals making generation and utilization of revenue difficult, unplanned expansion of clinical services driven only by the demand of academics, inefficient procurement system, inefficient medical equipment management system, Differences in visions and missions of teaching and services making the support units more responsive to teaching functions only.

Conceptual framework

According to the conceptual framework adapted from the chartis group (11), overall alignment is realized by optimizing governance, strategy, management and economics to maximum achievable levels; these four dimensions are described more fully below. Fully integrated AHSCs appear to have the highest degree of alignment because they are better able to optimize on all four of these dimensions. Some AHSCs achieve significant alignment by optimizing on two or three of these dimensions, even when key components of an AHSC are under separate governance and management.

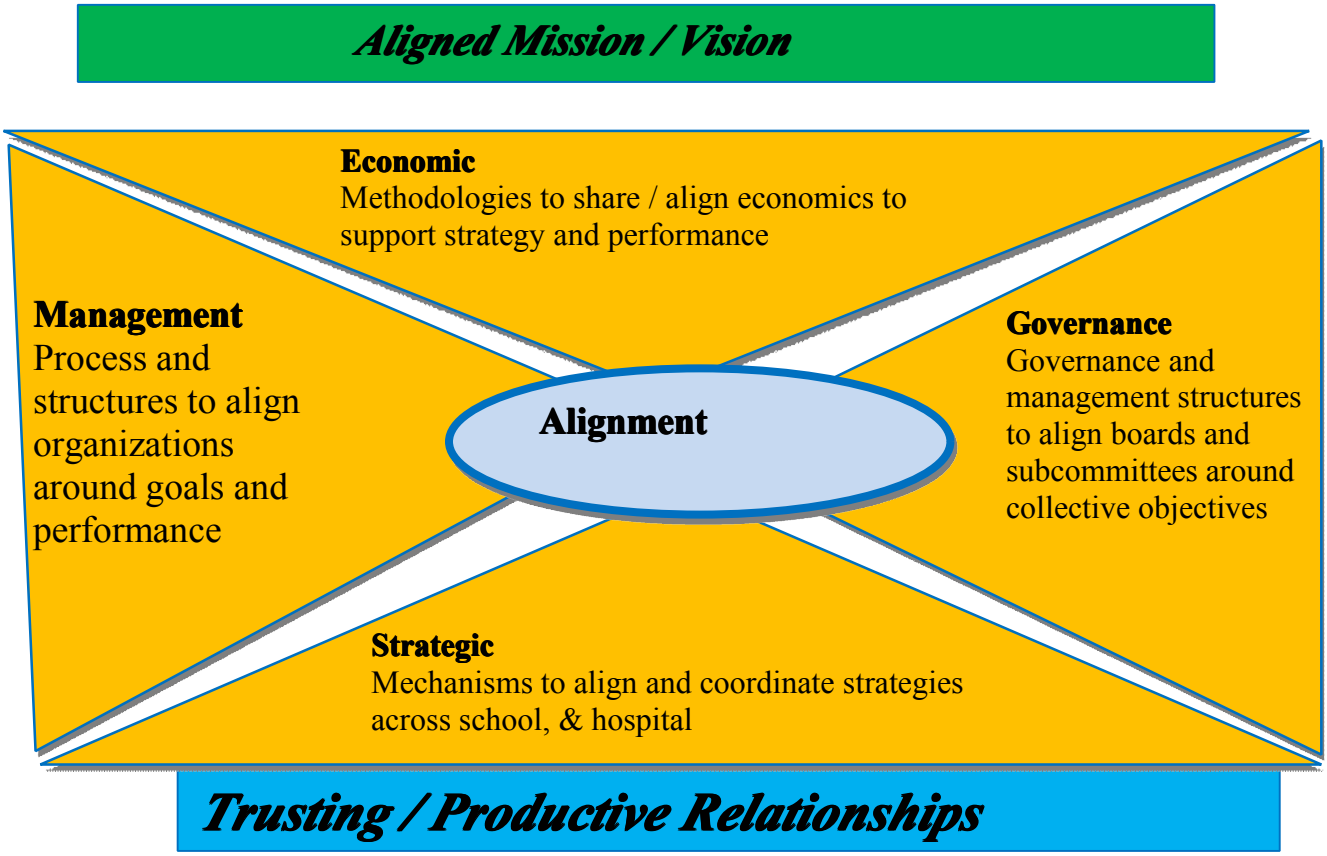

Figure 1: Optimal academic health science center alignment, as achieved by integrating the organization to the greatest extent possible in four key areas Adapted from (11).

AHSCs alignment is achieved by coalescing the organization (to the greatest extent possible) in four KEY areas *(Fig. 1)*:

- **Strategic Alignment.** Strategic alignment reflects agreement on a vision, measurable goals, specific strategies, and the commitment of resources required for implementation. The vision and strategy should reflect the unique value proposition that leverages capabilities and resources from across all missions to differentiate the AHSC from non-academic competitors.
- **Governance Alignment.** Governance alignment reflects governance approaches that bring together senior leadership across the AHSC, whether school, practice plan or hospital-based, and provide effective mechanisms for oversight and

coordination among units. The availability and use of timely performance information and the willingness of the leaders to bring difficult issues to the governance group are key factors in success.

- **Economic Alignment.** Economic alignment reflects the organization of funds flows to enable and create incentives for individuals and units to support and meet personal and organizational goals. Small changes to funds flow methodologies can have a large impact on behavior and performance.
- **Management Alignment.** Management alignment reflects the organization of senior team roles, responsibilities, processes and information required to effectively coordinate programs across multiple units and missions. The involvement of faculty leaders in management of programs across and between units, supported by strong managers who are able to work collaboratively, helps to build support for AHSC-wide goals. Other critical success factors include unified or interoperable management systems, timely sharing and transparency of information, and individual performance incentives that align planning and behaviors around pre-determined objectives and missions.

1.3. Significance of the study

The findings and recommendations of this study will be used by the policy makers (MOH and MOE) to develop consistent model for the governance of teaching hospitals. The universities which own teaching hospitals in the country can use the findings from this study to evaluate the current state of alignment in their organizations and apply the recommendations from the findings to achieve alignment between their teaching hospitals and medical schools. To the up to date knowledge of the investigator, there is no published study on this topic in Ethiopia. Therefore, this study will also fill the information gap and provide baseline for further investigation.

Chapter 3: Objectives of the study

1.1. General objective

To explore the governance status and alignment across governance, strategy, economics and management of academic health science centers in Ethiopia.

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1.2. Specific objectives

1. To identify the governance status of teaching hospitals in Ethiopia
2. To explore strategic alignment of teaching hospitals in Ethiopia.
3. To explore the governance alignment of teaching hospitals in Ethiopia.
4. To explore the economic alignment of teaching hospitals in Ethiopia.
5. To explore the management alignment of teaching hospitals in Ethiopia.

Chapter 4: methods and Subjects

4.1. Study area and period

The study was conducted from April 20/2015 to May 20/2015 in four teaching hospitals in Ethiopia. The hospitals were selected based on their experience with health science teaching, bed capacity, annual patient flow and staff capacity. The teaching hospitals included:

1. Tinkur Anbessa Hospital

Established in 1972, by the personal holdings gift of emperor Hailesellaise I, Tikur Anbessa hospital is the largest specialized hospital in the country. It has 700 beds with patient flow of more than 400,000/year. It has more than 200 specialist physicians of different categories. The hospital is located in the capital city.

2. Jimma university specialized hospital

Jimma university specialized hospital was established in 1930 by the Italian invaders for the service of their solders. It has 523 beds with patient flow of more than 160,000/year. The hospital is located in Jimma town 355 km southwest of Addis Ababa. It has 60 specialist physicians of different categories.

3. St. Paul Hospital

St. Paul's Hospital was founded during the time of Emperor HaileSelassie I at a location now known as the regional bus terminal in the market place in Addis Ketema. It was established with the view of helping underserved populations who could not afford medical expenses. It was inaugurated in July 1947, equipped with 250 beds. In 1968/69 a new hospital building was constructed in Gulele area – its present site. Currently the hospital has 360 beds with patient flow of more than 250,000/year. It is located in the capital city. It has 55 specialist physicians of different categories.

4. Hawassa University Referral hospital

Hawassa University referral hospital was established in 2005. It has 400 beds with patient flow of 90,000/year. The hospital is located in Hawassa city 275 km south of Addis Ababa. It has 38 specialist physicians of different categories.

4.2. Study design

Case study was applied.

4.3. Population

4.3.1. Source population

All teaching hospitals and their corresponding health science colleges in Ethiopia were the source population.

4.3.2. Study population

The selected teaching hospitals and their corresponding health science colleges were the study populations. The study units were the CEOs (equivalent) medical directors/clinical directors/chief clinical officers ,head of human resource department (equivalent) and head of finance department (equivalent), deans (equivalents)of health sciences colleges and medical school heads (equivalents), heads of all departments, and board chair persons of the selected academic health science centers.

4.4. Inclusion and exclusion criteria

4.4.1. Inclusion criteria

University owned hospitals with corresponding health Science College were included.

4.4.2. Exclusion criteria

The delegates of those positions were excluded.

4.5. Sample size determination and sampling technique

4.5.1. Sample size determination

The hospitals were selected based on their experience of teaching in health sciences, bed capacity, annual patient flow and number of faculty. Additionally, the hospitals must have corresponding health Sciences Colleges or owned by universities. All the leaders of the

teaching hospitals and the corresponding health science colleges at the positions of CEOs (equivalent) medical directors/clinical directors/chief clinical officers, college deans(equivalents), medical school heads(equivalents), head of human resource department (equivalent) and head of finance department (equivalent) from each hospitals were included for the structured interview. The expected number of interviewees was 24. All department heads of each hospital were included in the FGD. The governing board chair persons of the teaching hospitals were included for in-depth interviews.

4.5.2. Sampling technique

Purposive sampling technique was employed**.**

4.6. Measurement

4.6.1. Data collection instrument

Structured questionnaire was adapted from the chartis group (11) and respondents were asked to rate their organizational model, level of trust among leaders, mission congruence, strategic alignment, governance alignment, economic alignment, management alignment, overall operational alignment and the importance or the need for alignment. To aid participants' response schematic demonstration of models was provided. Responses to the questions were assigned a value from 1 to 5, with 1 representing the option that described the lowest level of alignment and 5 representing the most complete alignment option along the continuum. Interviewer administered questionnaire adopted from the hospital leadership and governance section of the Standard Method of Evaluation against National Hospital Reform (14), was used to collect data related to the governance status of each teaching hospital. Topic and interview guides that were prepared by the investigator were used to conduct the FGDs and in-depth interviews, respectively.

4.6.2. data collection procedure

The structured questionnaire prepared in English was administered to six respondents from each hospital. The CEO (Equivalent) of each hospital responded to the hospital governance status questions. Four MPH degree qualified trained data collectors participated on the data collection. One FGD per hospital was conducted using the prepared topic guide, making a total of four

FGDs. The number of participants per FGD ranged from 10-13 persons. Two MPH degree holder data collectors conducted the FGDs, one moderating the process and the other taking notes. The in-depth interview was done using interview guide. The data collectors took paper notes as well as audio recording of the responses of the participants of FGDs and the in-depth interviews.

4.6.3. Study Variables

Organizational demography, Socio-demographic characteristics of the respondents, Organizational typology, trust among leaders, mission congruence, strategic alignment, governance alignment, economic alignment, management alignment, overall operational alignment and the importance of the need for alignment.

4.7. Operational definitions

In this context, an academic health science center referred to health Sciences College owned by universities/colleges in Ethiopia, that also embraces a teaching hospital.

Overall alignment was measured as the average or mean score of the means of the four key dimensions of AHSC alignment, namely; governance, management, economic and strategic alignments.

4.8. Data processing and analysis

Before data collection the questionnaire was coded and after data collection, each questionnaire was checked for completeness and error. Data were entered and analyzed using SPSS version 20-computer software. Descriptive statistics like frequency tables, graphs, descriptive summaries and text narratives were used to describe the results. The data from the FGD and the in-depth interview were transcribed, thematized and triangulated with the results of the structured questionnaire.

4.9. Data quality Management

Four Data collectors with the qualification of MPH degree were recruited. They are university lecturers and had prior experience of conducting FGDs and in-depth interviews. They were given training for one day on the structured questionnaire, FGD topic guide as well as the in-depth

interview guide. Pre-test on the instruments was conducted in a similar set up not selected for the study. The principal investigator supervised the data collection process. Collected questionnaires were checked daily for completeness and error. The audio records of the FGDs and in-depth interviews were transferred to computer daily and given file reflecting the facility name as well as either FGD or in-depth interview. The audio records were transcribed and thematized by the principal investigator.

4.10. Ethical consideration

Prior to the commencement of the study, ethical clearance was obtained from the ethical review board of Jimma University College of Health Sciences. Support letter was obtained from research and postgraduate coordination office of Jimma University College of Health Sciences and submitted to the selected AHSCs. Ethical clearance was also obtained from Addis Ababa University college of health sciences and SPHMMC. Written informed consent was obtained from the structured interview participants, and verbal consent was obtained for participants of FGD. The study participants were identified in the result by their position rather than their name. Only the hospitals are identified by their name for facility comparison purpose.

4.11. Dissemination and utilization plan

After presetting and defending publicly at Jimma University, the final result of this study will be compiled and submitted to the University College of Health Sciences and Department of Health Economics, Management and Policy. It will also be delivered to the Ethiopian Federal Ministry of Health and Federal Ministry of Education. The findings will as well be shared with the involved AHSCs. The extract of the result will be presented on annual research conferences and published on a reputable scientific journal and research proceeding.

5. Chapter 5: Results

5.1. Socio-demographic Characteristics

Out of the 24 expected respondents 17 responded to the structured questionnaire. All of respondents were married and majority of them are male. The average services year of the respondents for their current organizations was 7.3 years (range 0.4-17 years). They have in average, 15.6 years of total work experience with a range of 3 years to 30 years. (Table 1).

Table 5.1: The socio-demographic characteristics of respondents, Governance of Teaching Hospitals in Ethiopia, May, 2015 (n=17)

Background characteristics		**No (n=17)**	**(%)**
sex	Male	14	82.4
	Female	3	17.6
Age (in years)	<40	9	52.9
	>=40	8	47.1
	PhD	1	5.98
Educational Status	M.D	4	23.53
	MPH/MSC/MHA/MA	6	35.29
	BA/BSC	6	35.29
	physician	6	35.29
	Nurse	1	5.88
Profession	Accountant	4	23.53
	Management professional	4	23.53
	Other health professional	2	11.80
Position	CEO/equivalent	4	23.53
	Chief clinical officer/medical director	2	11.80
	College dean	2	11.80
	Medical school head	1	5.88
	Head, human resource	4	23.53
	Head, finance	4	23.53
	0-5 years	1	5.88
Work experience	6-10 years	3	17.64
	11-15 years	4	23.53
	16 years and above	9	52.94

5.1. Alignment

5.1.1. Organizational model

Respondents were asked to identify the organizational models of their AHSCs among the depicted models and all of them selected the integrated model or model 5 (fig. 5.1). However, one of the AHSCs among those studied is different from the others as it is directly accountable to the federal ministry of health and not owned by a university.

1. Independent model
   - None responded
2. Clinical enterprise model
   - None responded
3. Academic enterprise model
   - None responded
4. Separate Practice plan model

   None responded
5. Integrated model
   - All of them responded (17

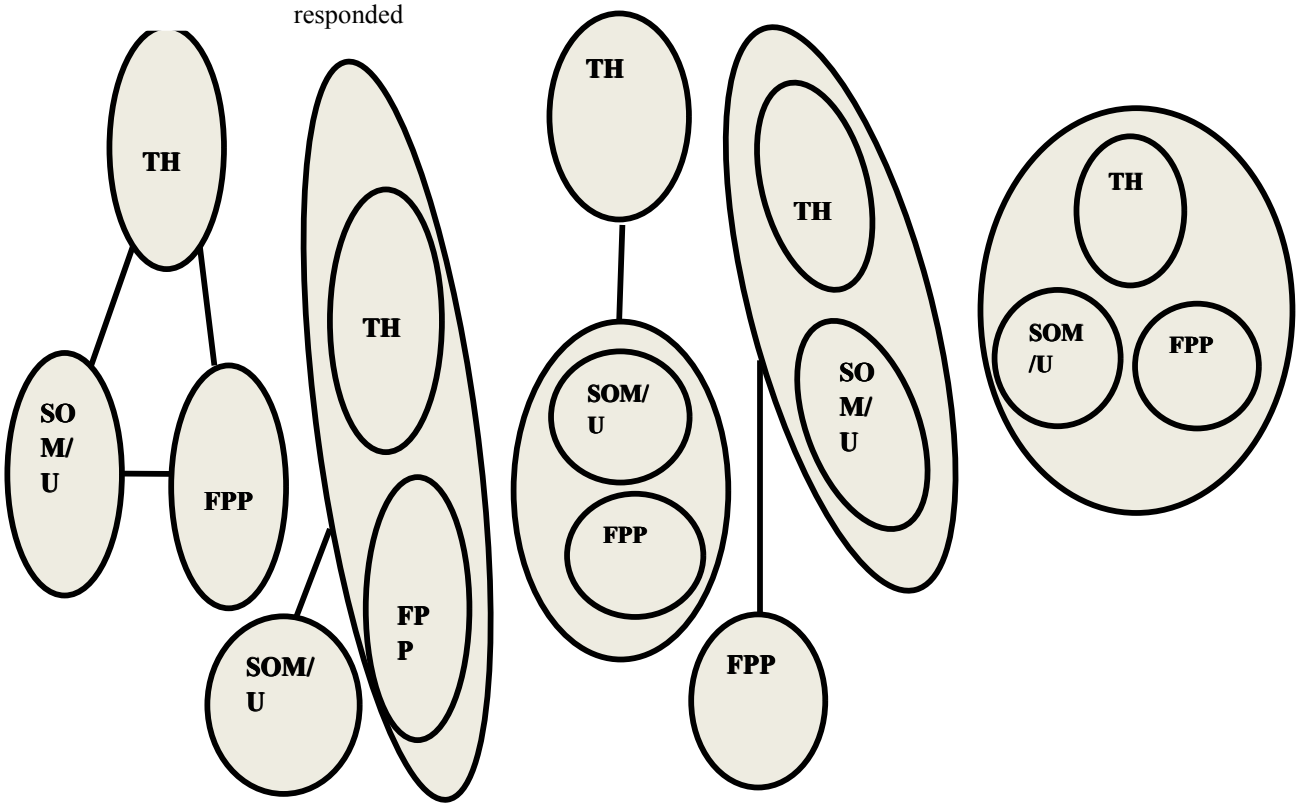


Fig. 5.1: AHSC organizational structures models options, Governance of Teaching Hospitals in Ethiopia, May 2015 (n=17)

Key: TH= teaching Hospital, SOM/U = University/school of medicine, FPP = Faculty Practice Plan

5.1.2. Mission congruency

The survey respondents were asked to rate the degree to which specific elements of their AHSC's mission were shared across the AHSC component organizations. Nearly all respondents indicated that patient care, graduate medical education, clinical research, and community service were either moderately overlapped or fully shared missions. Patient care and community services were perceived to be fully shared by the majority of the respondents (Fig: 5.2). However, only less than one third of the respondents viewed basic science research as shared missions in the AHSC. This issue is most pronounced among the AHC respondents where the hospital is separate from the medical school and practice plan. For instance, these missions are perceived shared by more than three fourth of respondents from HURH and SPHMMC where the hospital and medical school are integrated (Table5.2).

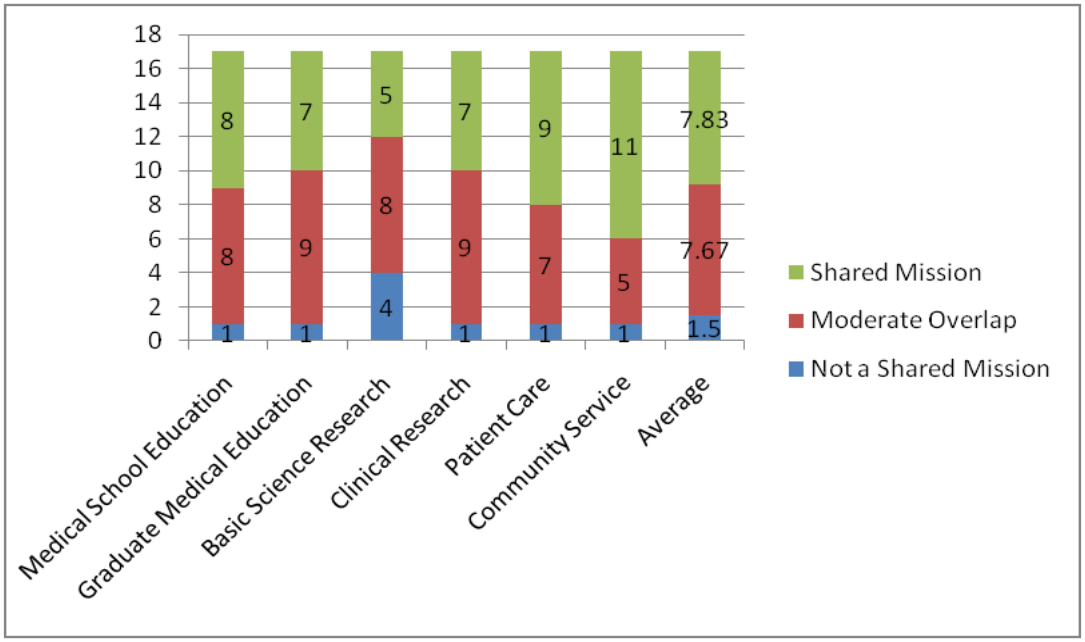


Fig. 5.2: The degree of mission congruency at AHSCs, Governance of Teaching Hospitals in Ethiopia, May 2015.

Table 5.2: Comparison of the perceived degree of mission congruity across the common missions of AHSCs, Governance of Teaching Hospitals in Ethiopia, May 2015.

Mission Element	AHSC	Not a Shared Mission	Moderate Overlap	Shared Mission
Medical School Education	BLH	0	3	0
	JUSH	1	4	1
	SPHMMC	0	1	2
	HURH	0	0	5
Graduate Medical Education	BLH	0	3	0
	JUSH	1	4	1
	SPHMMC	0	1	2
	HURH	0	1	4
Basic Science Research	BLH	0	3	0
	JUSH	4	2	0
	SPHMMC	0	1	2
	HURH	0	2	3
Clinical Research	BLH	0	2	1
	JUSH	1	4	1
	SPHMMC	0	1	2
	HURH	0	2	3
Patient Care	BLH	0	2	1
	JUSH	1	4	1
	SPHMMC	0	0	3
	HURH	0	1	4
Community Service	BLH	0	2	1
	JUSH	1	2	3
	SPHMMC	0	0	3
	HURH	0	1	4
Average	BLH	0.00%	83.33%	16.67%
	JUSH	25.00%	55.60%	19.40
	SPHMMC	0.00%	22.00%	78.00%
	HURH	0.00%	20.00%	80%

Key: TAH = Tikur Anbessa Hospital, JUSH = Jimma University Specialized Hospital, SPHMMC = St. Paul Millennium Medical College, HURH = Hawassa University Referral Hospital.

The findings from the FGDs and key informant interviews revealed mixed opinion. The discussants and interviewee agreed that as a principle and on the written documents of the centers the missions were shared, but they mentioned practical challenges they faced while executing the missions. One of the discussants said, *"There is mission overlap on most parts and the staff overlaps too, but the majorities do not know the mission exactly if asked. Only few people know the missions by heart."* Another discussant added, *"I think there is lack of integration and coordination between the hospital and the college and the fact that both have separate plan and budget indicate lack of visible mission alignment. We teach laboratory in theory but we are not showing them practical session in the hospital. We do not have the feeling that this hospital belongs to us."* The participants reiterated that businesses at their facilities are scanned by two competing lenses of patient care and academic activities. One of the department heads said, *"Even the hospital janitor did see cleaning class rooms as separate activity and claims no responsibility for that."*

5.1.3. *Leadership relationships*

Trust among leadership

The participants were asked to rate the degree to which the AHSCs leaders subscribe to the following five attributes that typically characterize trust:

1. Collaborate on key decisions;
2. Fully share financial and operational information;
3. Recognize the value and interdependence of success across entities and missions;
4. Are willing to compromise for the greater good; and,
5. Trust each other.

Most of the respondents believed that the leaders in their AHSCs recognize the value and interdependence of success across entities and missions. In addition, the level of trust among the leaders and willingness to collaborate on key decisions were high. However, the perceived willingness of the AHSCs leaders to act in a manner consistent with a

trusting relationship was problematic. For example, the perceived willingness to share operational and financial information was viewed less positively (Fig. 5.3).

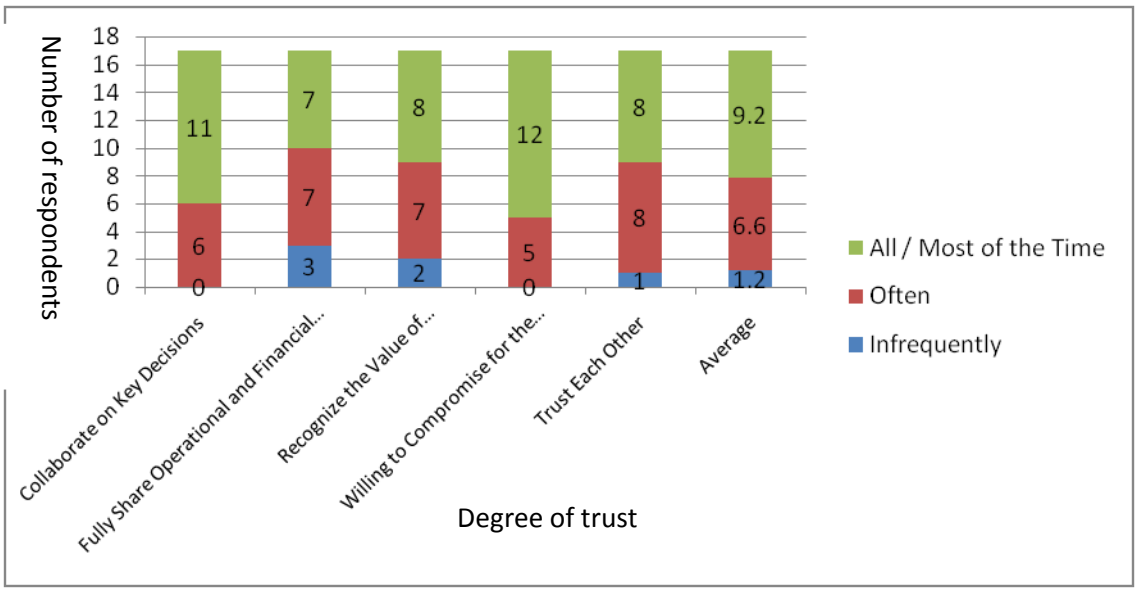


Fig. 5.3: The Degree, to which the leaders of components of AHSCs in Ethiopia demonstrate trust, Governance of Teaching Hospitals in Ethiopia, May 2015.

The FGD participants' responses also indicate that there is positive relationship among the leaders of the different components of their AHSCs, but with some reservation. Among the discussants one responded, *"In my personal definition the leadership relationship between the hospital and the university leaders is very positive. But as to the structural definition, it will definitely create conflict among the leaders. It is the consensus of educated people, which is bringing the hospital and the university together."*

5.1.4. Strategic Alignment

Only less than half of the respondents perceived that there is fully integrated strategy across all mission and entities (fig. 5.4). Nonetheless, the data from FGDs and key informant interview did not support the existence of strategic alignment. Here is the response of one key informant: *"hospitals set their strategy separately, approve it by their governing board and execute it, while the health science colleges do the same alone*

and submit it to academic affairs vice president and execute as part of university level strategy and it is creating difficulty in translating that strategy into operational alignment." Another participant added, *"I can surely say there is no strategic alignment between the hospital and the university. Strategic alignment starts from strategic planning which we are not practicing together."* The strategic alignment is more positive for SPHMMC.

Table 5.3.: Degree of the perceived strategic alignment among AHSCs in Ethiopia, Governance of Teaching Hospitals in Ethiopia, May 2015.

Strategic alignment approaches	Number of respondents
Separate Strategies, Across Missions And Entities That Are Not Inter-related	2
Integrated Strategy For A Single Mission, e.g., Have An Integrated Clinical Or Research Strategy	4
Integrated Single Program Strategy That Crosses All Missions, e.g., Have An Integrated quality improvement Strategy That Includes Clinical, Research And Educational Components	7
Fully Integrated Strategy Across All Missions & Entities	4

5.1.5. Governance alignment

All of the studied AHSCs had governing board with defined term of reference that meets at minimum every quarter. All of them had a Statement of Vision, Mission and Values that had been approved by their respective Hospital Governing Board. However, all staff were oriented to the Hospital Vision, Mission, and values in none of the AHSCs. CEOs were appointed for three of the selected teaching hospital, but CEO of only one hospital had been evaluated annually (Annex II A).

Only one among the AHSCs under study was governed by a single unified board, while the three remaining AHSCs have two separate governing boards, hospital governing board and university board (Table 5.3).

Table 5.3: Governance Model of Academic Health Science Centers in Ethiopia, Governance of Teaching Hospitals in Ethiopia, May, 2015.

Governance model	**AHSC**				
	BLH	JUSH	SPHMMC	HURH	Total
Separate Boards, Little or No Overlap, e.g., Under 25% Of Board Members	0	1	0	1	2
Significant Overlap of Board Memberships, e.g., More Than 25% of Board Members	3	3	0	0	6
Joint Committees That Report To Entity Boards	0	1	0	1	2
Integrated Board Subcommittee with Delegated Authority For Coordination	0	1	0	3	4
Single Unified AHSC Board	0	0	3	0	3
Total	3	6	3	5	17

Key: TAH = Tikur Anbessa Hospital, JUSH = Jimma University Specialized Hospital, SPHMMC = St. Paul Millennium Medical College, HURH = Hawassa University Referral Hospital.

The split governance model of the AHSCs had mixed feeling from the perspectives of the FGD and key informant interview participants. One of the board chair person of the teaching hospital said, *"There is significant improvement in service indicators of the hospital since it became independent. The budget as well as human resources capacity of the hospital is increasing. The linkage between the hospital and college of health science is created through hospital senior management team meeting; clinical team meeting and academic commission are the mechanisms of achieving alignment."* On the other hand, the dichotomization of service and academics leaders had created blurring of responsibilities and diffusion of accountability as clearly indicated by one of the department heads, *"Rather than alignment there is overlap of structure" the current structure diffuses responsibilities" and lacks integrity."* The governance misalignment was described as a threat to patient care and students practice according to the opinion of a clinical department head. She said, *"Ideally speaking, as the hospital is implementing healthcare financing reform, even the patients are buying gloves for themselves, and how*

will the hospital avail gloves and the necessary supplies for the students? Partly the government policies and regulations are playing their roles in hampering alignment."

5.1.6. Economic Alignment

The AHSCs studied had an average annual budget of 197,496,863.6 Birr with the range of 69 million Birr to 246 million Birr, for the current fiscal year (2014/2015). The budget was devolved to either hospital or college level in most of them and none of them had devolved it to department level. In the entire AHSCs, budget was set based on a historical basis, adjusted through an annual "bidding" process managed by a central University budget-setting group. Once the budget was set, the degree of flexibility or autonomy of deciding how to spend is limited to spending non-staff as appropriate, but use of staff budget restricted to specific posts approved by "central" university group. The participants were also asked to rate the level of fund flow alignment by responding to the depicted schematic diagram (fig. 5.5).

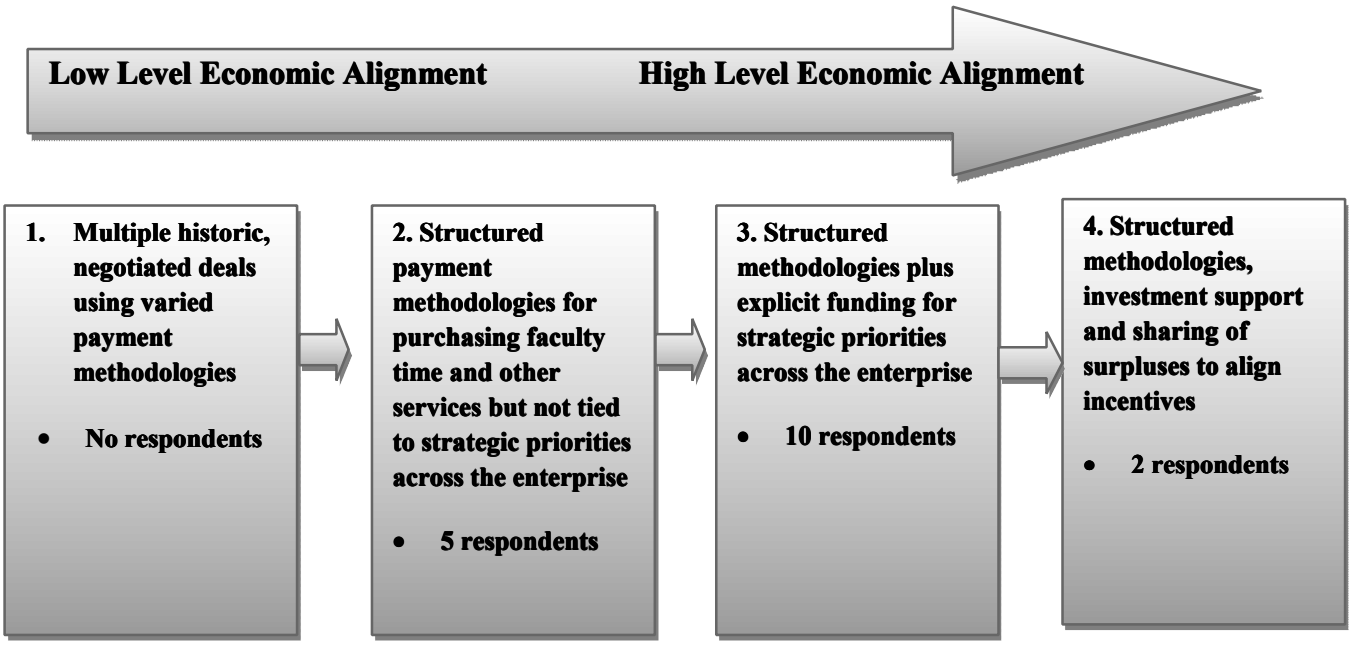


Fig. 5.4: The degree of economic alignment of AHSCs in Ethiopia, Governance of Teaching Hospitals in Ethiopia, May, 2015.

Most respondents reported structured methodologies plus explicit funding for strategic priorities across the enterprise. Regarding budgeting and reporting, majority perceived that the different components of the AHSCs combine financial planning at program level and jointly review performance reports and coordinate budgeting. Some respondents

indicated challenges of integrating budgeting and reporting processes as structural problems worsened by lack of transparency in providing the necessary resources to make information available and reservation of fully sharing financial information (Annex II B).

5.1.7. Management structure Alignment

The management dimension of alignment was measured in two ways in the study:

1) The extent to which management structures for clinical activities are integrated across the practice plan and the hospital; and
2) The extent to which individual performance measures and financial incentives are aligned for key leaders.

Concerning the extent to which management structures for clinical activities are integrated, nearly one third of participants responded that there is separate management structure for physicians and hospital departments and similar number responded that fully integrated management structure across the entire enterprise bridging professional and technical departments and programs exists. Regarding incentive compensation and performance measurement, the AHSCs mainly use Separate Performance Measures that is coordinated across Missions and entities for executive leaders, academic department heads and supportive services managers. For clinical services managers, the major incentive compensation and performance measurement mechanism is independent performance measures not Coordinated across missions and entities. See Annex II C.

Management structure alignment is a challenging problem according to the opinion of majority of FGDs and key informant participants. One of the discussant said, *"Let alone the input, we do not know about the output. What is the revenue generated by each department? What is the performance level of each department? This raises the issue of motivation. There is no mechanism to give credit for best performers and reinforce poor performers."* The other respondent added, "*The current performance management system is not merited. For instance, if a physician has one class on a specific day that is enough for the day or if s/he sees patient, no more class for the students on that particular day. And the academic staff are rated only by their academic activities not by patient care services."*

Three fourth of the AHSCs studied employed, different performance measurement mechanisms across the different missions. The service components were monitored by hospital quality control office/committee based on key performance indicators; the teaching learning components of academic activities were monitored by college academic quality assurance office; and the research component was monitored by research and technology transfer office/research and postgraduate coordinating offices.

5.2. Overall alignment

The respondents were asked to rate their AHSC's overall degree of strategic and operational alignments on 1 to 5 scale with 1 indicating low and 5 representing high alignment. Accordingly, more than three quarter of them perceived that their AHSC had medium overall strategic and operational alignments. They were also asked the importance of alignment in their AHSCs in the future and close to three forth responded that the importance is high. The AHSCs with high overall alignment demonstrated consistently high alignment across the four key alignment dimensions (fig. 5.6 and Annex II D &E).

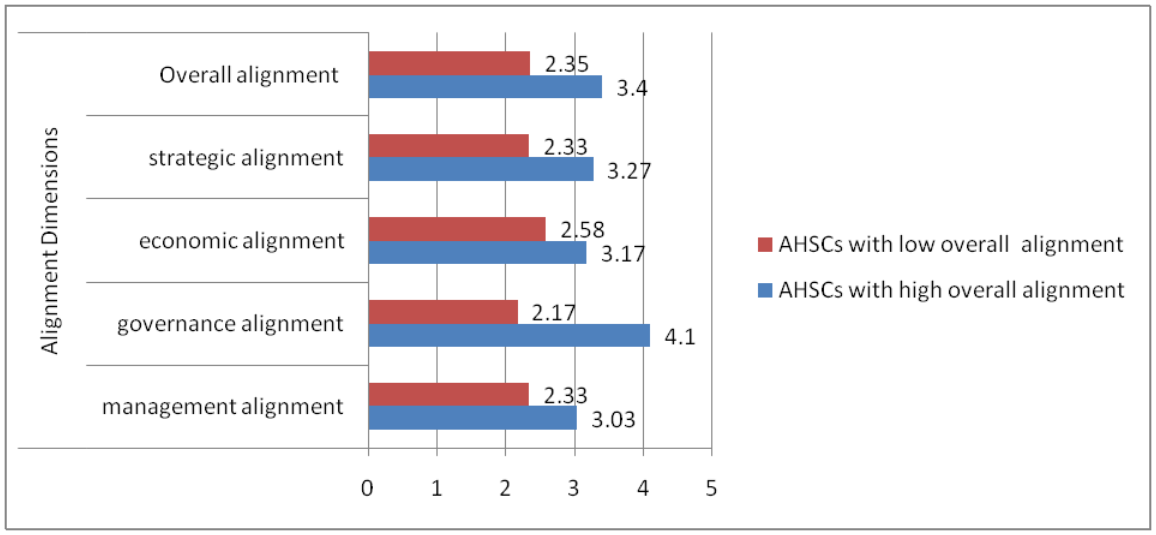


Fig. 5.5: Alignment by dimensions for AHSCs with high and low overall alignment in Ethiopia, Governance of Teaching Hospitals in Ethiopia, May, 2015.

Scale 1-5; 5= maximum alignment.

Table 5.4: Comparison of alignment across the four key alignment dimensions among AHSCs, Governance of Teaching Hospitals in Ethiopia, May 2015.

AHSC	Four key alignment dimensions				
	management alignment	governance alignment	economic alignment	strategic alignment	Average
BLH	2.3333	2.0000	2.6667	2.3333	2.33
JUSH	2.3333	2.3333	2.5000	2.3333	2.37
SPHMMC	3.6667	5.0000	3.3333	3.3333	3.83
HURH	2.4000	3.2000	3.0000	3.2000	2.95

5.3. Major challenges to achieving alignment

The major challenges quoted by the respondents were related to governance structure, communication, human resources capacity, and incentives and performance management.

1. Governance structure

Almost all of the respondents except, those from SPHMMC explained that, the dichotomization of hospital service and academics is the major reason for hospital leaders to focus on patient care only and the academic leaders to emphasis on teaching research activities mainly. For instance, an academic department head said, *"There is a significant wastage of resources due to duplication of efforts and lack of coordination among departments."*

2. Communication

The respondents identified lack of proper communication channel and discussion for as one major challenge to achieving alignment. One respondent said, *"There is no common forum to share major decisions and strategies between the leaders of the AHSCs and the stake holders. The missions, vision, values and plans are not communicated to the staff."* Other respondent supported the idea by saying, *"There are school/department specific strategic plans which are derived from university level plan, but those plans are not communicated with the hospital."*

3. Human resources capacity

Majority of the respondents listed the following major challenges that are related to human resources capacity: lack of change agents and resistance to change; skilled staff turnover; faculty, particularly physicians' attitude of avoidance of participating in

management team; and separation of health professional staff deployment as academic and hospital/service staff.

4. **Incentives and performance management:**

Almost all of the participants agreed that the incentives and performance measurement among their AHSCs lacked uniformity due to the differences in incentives and fringe benefits between the Ministries of Health and Education.

6. Chapter 6: Discussion

All but, one of the AHSCs centers studied have split type organizational model, in which the teaching hospitals and the universities, each have their own governing boards and executive management. The fact that all the leaders of the selected AHSCs reported that their organizational model is integrated model does not correlate with their existing organizational model (fig. 6.1).

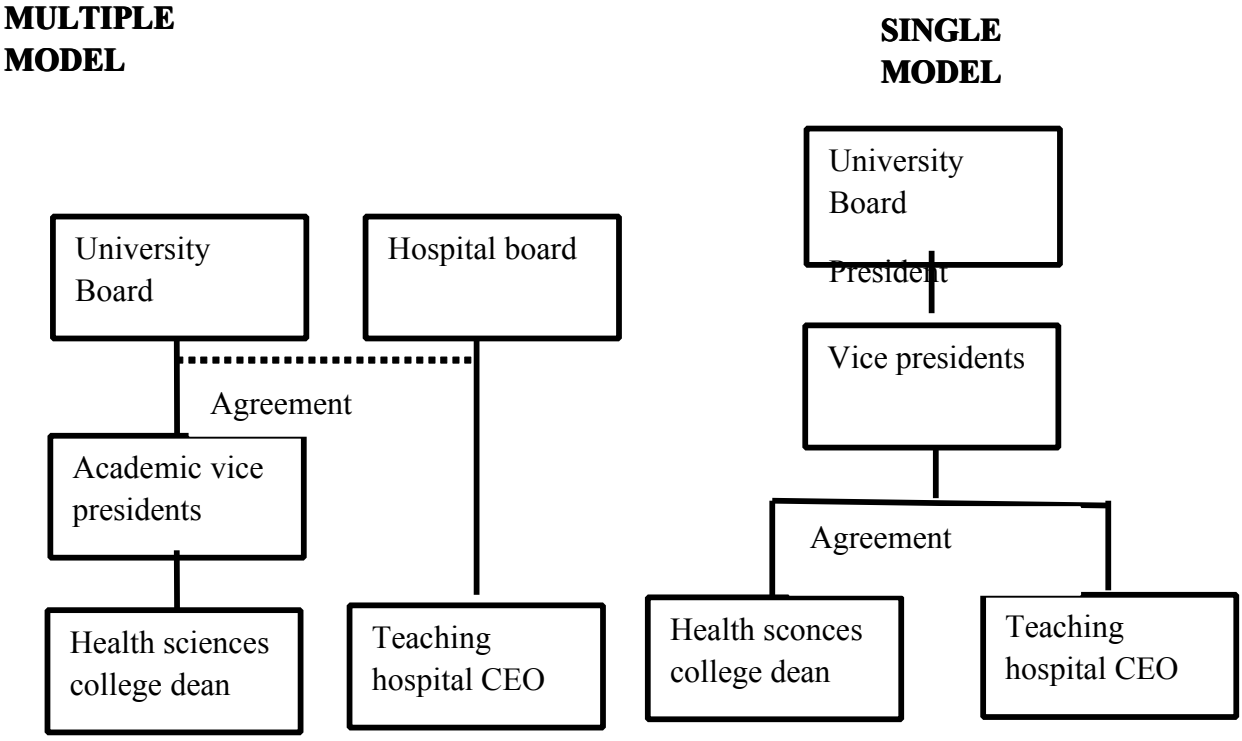


Figure 6.1: Two general models of academic health center organizational anatomy—the "multiple fiduciary, multiple executive leaders" format and the "single fiduciary, one executive leader" format.

The Chartis Group (11) notes five different models of academic health centers. When considering an independent model, the medical school, practice plan, and hospital are governed by separate and distinct entities. This (the first) model is likely to be the most difficult to align given the independent bodies that must ultimately agree upon a shared course of action. Another model (the second) is the academic enterprise model, in which the medical school and the practice plan are governed by a single entity and the hospital is independent. In this case, the dean may provide the oversight of both the medical school and the practice plan providing the assurance of alignment across the providers,

educators, and researchers. A third model is the separated practice plan model, in which the medical school and the hospital are under a common governance body. A fourth model is one in which the practice plan and the hospital share common oversight and the medical school is separate; in this plan, there may be particular challenges in assuring that the academic mission is addressed. A fifth model, which on the surface may be the best able to foster a common vision, is the integrated model.

Although the question of what is the best governance model for an AHSC is sometimes approached in simple terms of "one leader, or multiple," success is more likely defined by how well other critical factors are organized and managed. These include considerations of governance, including the size and complexity of the organization, selection and education of key trustees, their ability to access key data for their specific component and the AHSC as a whole, performance evaluation of the operating executives with respect to both specific institutional criteria and those for the AHSC as a whole, and management oversight by boards across the AHSC. When more than one governing body is involved, joint participation of boards and key executives is recommended for selected aspects of these processes. The very diversity of decision-making structures among the AHSCs underscores the point that successful governance can take a variety of forms (8, 11). However, Because of the differing primary missions, the confrontations and conflict in governing the AHSCs in times of dispute can lead trustees to conclude that one-leader models are better(6).

The most commonly cited reason for the strong support of single model is the need for single vision, unified point of accountability and overall "peace on campus" (6). The result of our study also indicate that the perceived mission congruity is high for the only single model AHSC included in the study as compared to the others, conforming to the above argument. The result of this study also revealed that all but one lack mission congruity and there existed diffused accountability. The study participants indicated that the separation of academic and service leaders could result in the final separation of the teaching hospitals and the health science colleges.

According to our study, the perceived level of trust among the leaders of the AHSCs high, particularly for collaboration on key decisions and willingness to compromise for the greater good, which is a positive indication for achievement of alignment. But, the result also indicated that the AHSCs executive leaders are not generous enough to fully share operational and financial information. As indicated earlier, these challenges to building and maintaining trust were most problematic in the AHSCs with the most significant separation of the AHSC components. Nonetheless, building trust among the leadership team requires that these issues be addressed if overall alignment is to be achieved***. "If the leaders do not trust, respect, and enjoy working together, then no mechanism or formula will drive alignment and subsequent performance."– AHSC Executive***

The governance experience of the entire AHSCs included in this study showed four separate structures:

I. Teaching hospital as a unit of health Science College and the college dean is also the CEO of the hospital (label 1 of fig. 6.2).

II. Separate organizational structure for the teaching hospital and health Science College. The leaders of both entities are accountable to different authority (label 2 of fig. 6.2).

III. The Teaching hospital and medical college as a single entity with unified structure (label 3 of fig. 6.2).

IV. Teaching hospital as a unit of health Science College and the head of school of medicine is also the CEO of the hospital (label 4 of fig. 6.2).

This is an indication of lack of uniformity of AHSCs governance in Ethiopia. Though there is a nationally declared regulation No 167/2009, which states the principal governance requirements of federal hospitals, the consistency of implementation varies across the country.

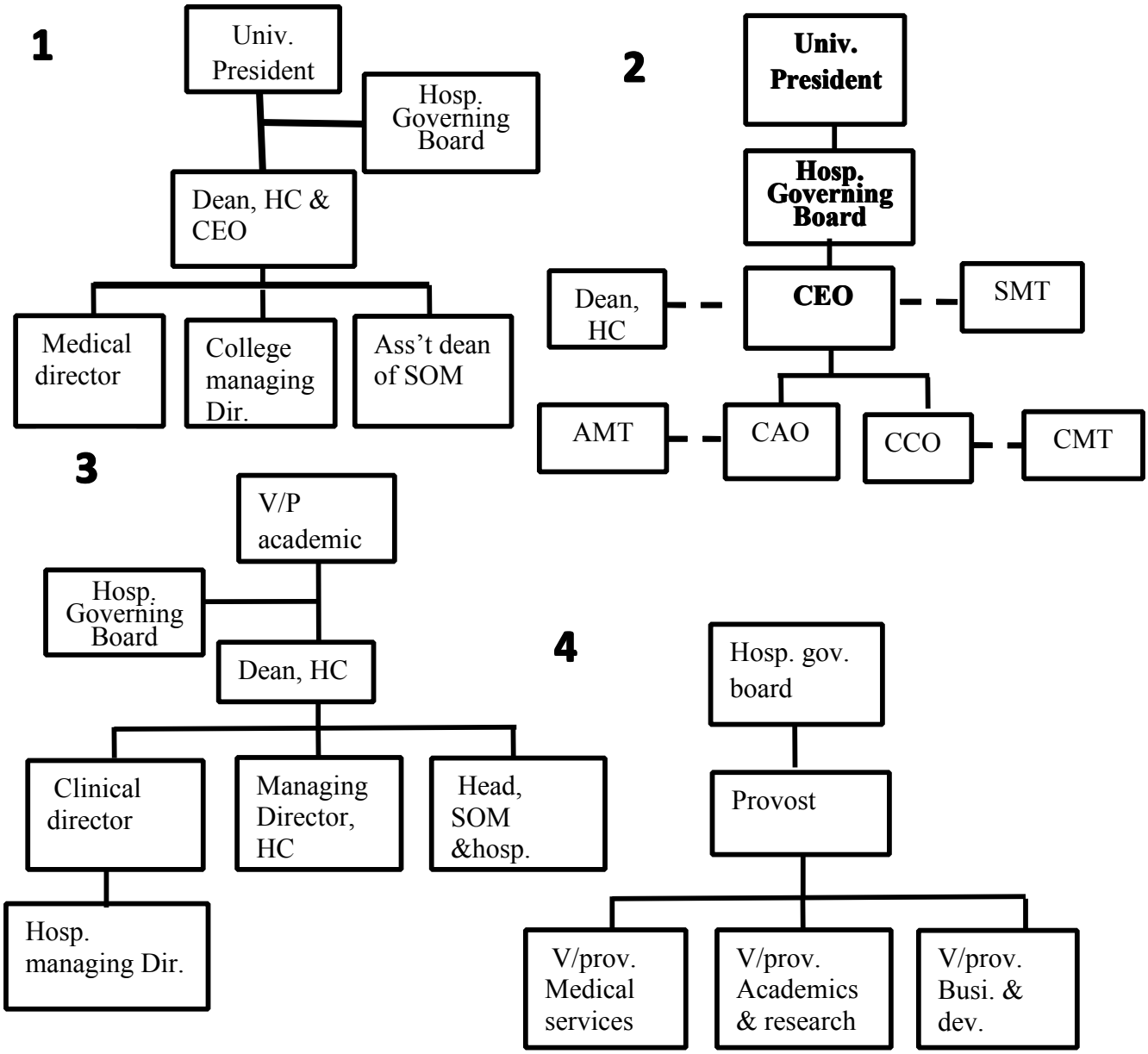


Fig. 6.2: Organizational structures of AHSCs in Ethiopia**,** Governance of Teaching Hospitals in Ethiopia, May, 2015**.**

Key: Univ. = university, Hosp = hospital, HC= health science college, Dir = director, Ass't = associate , SOM = school of medicine, SMT = senior management team, CAO = chief administrative officer, CCO = Chief clinical officer, AMT = Administrative management team, CMT = Clinical management team, V/P = vice president, gov. = governing, prov. = provost, busi.& dev. = business and development.

Most of the AHSCs included in this study lack strategic alignment as the components plan and execute strategies separately. Strategic planning can be an effective tool to achieve alignment, enhance accountability, ensure operating elements work in harmony and a first step in meeting the demands of the new landscape of healthcare (29). To achieve strategic alignment, Academic health science centers are expected to have visions and strategies that should reflect the unique value proposition that leverages capabilities and resources from across all missions to differentiate them from non-academic competitors (11).

With regards to economic alignment, the AHSCs showed variety of experiences. Most of them used structured method to purchase faculty time through monthly salary and incentives and fringe benefits. Some have separate budget for Hospital and health Sciences College and budgeting and reporting follow different lines too. The budget is set centrally and devolved to the level of either health Sciences College or hospital. As was rightly indicated in the result section the different units of the AHSCs do not know their annual budget and as well what revenue they generated. However, clarifying the flow of funds between the hospital and the medical school is key to the sustainability of the educational enterprise. Not only must the leadership be working together in all four dimensions, specifically strategic, accountable oversight, operational management, and fiscal, to be fully effective, but also the faculty, other providers, and staff should at least be motivated to a strive for a common purpose (29).

Consequential to the difference in organizational model and variety of governance arrangements, the AHSCs demonstrated varying management processes. The performance measurement and incentive implementations are not coordinated across missions and were often not tied to overall AHSC goals. Only one of AHSCs included in this study has fully integrated management structure across the entire enterprise. Nevertheless, lack of integration in health systems will eventually create artificial organizational distinctions between physicians, hospitals and other health system resources and impede successful pursuit of improved population health, customer

experience and efficiency (17). Literatures indicate that, the participation of faculty and chairs in managing across an AHC is critical to establishing ownership and support for strategic and operational priorities, which is an important contributor to overall alignment. Similarly, the academic reward system can affect the faculty practice, particularly across large, research intensive departments where concerns over clinical productivity and administrative efficiency may become subordinated by academic priorities (6, 11).

Despite these findings, leaders did establish promising strategies for achieving management alignment. These include:

I. Setting performance measuring and monitoring units:

- Quality control and HMIS units in hospitals
- Academic quality assurance units in health science colleges
- Research and technology transfer units in health Sciences College.

II. Creating joint Forums:

- Hospital leaders participation in college academic commission meetings
- College leaders involvement in hospital senior management team meetings
- Creation of clinical management team composed of heads of clinical services departments.

III. Formation of different hospital committee with mix of members across the missions.

Overall alignment

The overall alignment is 3.4 and 2.25 for AHSCs with high alignment and AHSCs with low alignment respectively on 1 to 5 scales. Overall AHSCs alignment corresponds with higher levels of alignment in all of the four key dimensions (fig.5.6). The finding of this study is in congruence with a previous study in which half of survey respondents reported a strong sense of overall alignment across the AHC and indicated that overall alignment correlated with relatively strong alignment in strategy, governance, economics/funds flow

and management at their institutions (11). Leaders from AHSCs governed by a single unified board reported stronger overall alignment as well as stronger alignment along each of the four key dimensions (fig. 5.6 and Annex II D &E). While Leaders from AHSCs with the split/multiple model governance reported far lower overall alignment and less-well developed alignment in strategy, governance, economics, and management. This finding confirms the enhanced ability of more integrated AHSCs to achieve alignment on the key dimensions required for overall alignment. However, although the issue of one-leader or multiple AHSC models represents important dialogue, the structures themselves provide no assurance of the balance achieved by the most effective AHSCs. How executive leadership is developed, how well it performs, how measures of success are understood, crafted, reported, shared, and monitored, and how trustee awareness and stewardship are exercised are more important to striking the necessary balance. These must be the strategic objectives for AHSC governance (6).

Limitations of the study

This study should be cautiously interpreted due to the following limitation:

- Because of limited resources, the students, patients, faculty and staff perspectives were not included.
- The fact that the management team was participated in the FGD at the same could have introduced social desirability bias.
- The researcher is the CEO of one of the included academic health science center.
- Limitations related to the method: low external validity and generalizability.

Chapter Seven: Conclusion and Recommendation

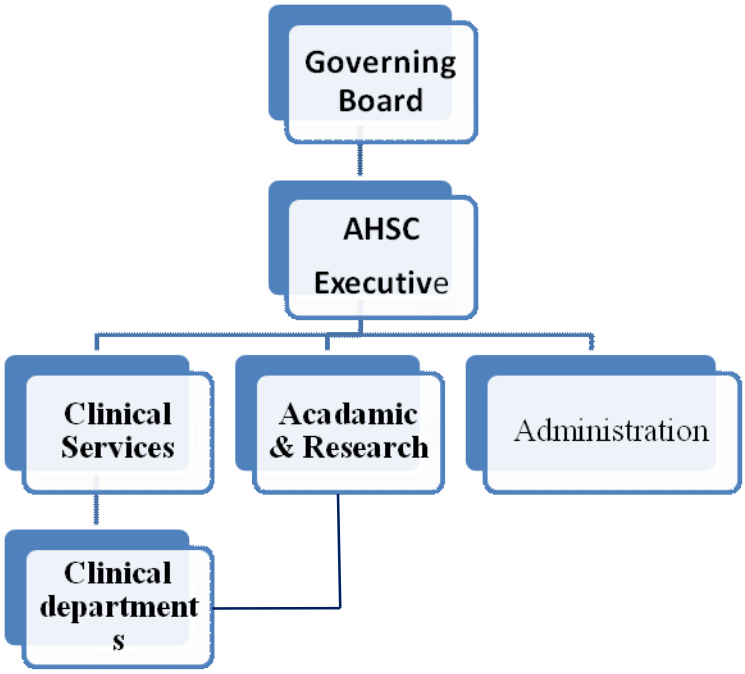
7.1. Conclusion

1. The majorities of the AHSCs have the split type /multiple model organizational models, dichotomization of leadership and associated lack of mission congruity.
2. The AHSC with a single /integrated (structural) model showed consistent overall alignment as well as high alignment in all of the four key alignments and hence, better off in achieving alignment across mission components.
3. The trust among the leaders of the AHSCs is high, but there is serious lack of transparency and open communication regarding disclosing financial and budgetary information to department level.
4. The low strategic, governance, economic/funds flow, and management alignment resulted in the overlap of structures and duplication of efforts.
5. The budgeting process and financial management are highly centralized and lacks transparency.
6. The need for achieving alignment is high among the AHSCs leaders.
7. Though dispersed across missions and components, the AHSCs have devised mechanisms to monitor and measure performances and made efforts to create common forums for achieving alignment.
8. The major challenges of the AHSCs to achieve alignment are partly structural, partly process, partly leadership, partly organizational culture and partly policy related.

7.2. Recommendation

1. The AHSCs have to communicate their missions, visions, values and strategies to all staff.
2. As alignment will be a key contributor to future success on a number of key dimensions f including, financial performance, quality improvement and overall improved value to the population served and not a mare change of structure; the AHSCs should assess the current state of alignment in their institution and develop a definition of success in alignment that is consistent with their unique missions and strategic visions, and then routinely monitor performance against these metrics.
3. For its different units to make informed and coordinated decisions the AHSCs should create open communication channel between the leaders and subordinates, make the process of budgeting transparent, participatory and flexible, and decentralize financial decision making at least to department level.
4. To bring a significant change in their historical operating model and culture, without a corresponding loss of organizational control, AHSCs should encourage meaningful involvement of the faculty in managing operations of the AHSCs as pairing faculty leaders with strong operations managers often provides an organization with the benefit of faculty accountability.
5. For the universities that own AHSCs to integrate the governance and management, remove dichotomization of service and academics, and empower the leaders of the AHSCs through full decentralization of authority.
6. For MOH and MOE to device special career structure with clearly set incentives and fringe benefits for the staff of AHSCs.
7. For MOE and MOH to enact unifying organizational structure with single fiduciary one executive model (fig. 7.1) across all AHSCs in the country, and provide them the necessary financial and legislative support to effect it.
8. For interested stakeholders and scholars to conduct further in-depth study with detailed analysis as this study is exploratory type.

Fig. 7.1: Recommended organizational model for AHSCs in Ethiopia, May 21, 2015



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Annex I: Data collection instruments

Governance of Teaching Hospitals in Ethiopia: Achieving Alignment in Academic Health Science

I. Academic health sciences center executives' interview questionnaire

Introduction and Consent Form
Hello, my name is _____, I am working with an investigator from Jimma University
The aim of this study is to assess the alignment of teaching hospitals in Ethiopia and identify their major challenges to achieve alignment in governance, management, economics/Fund flow and strategies.
The study uses survey methods and qualitative methodology, such as interview, observation, record review, focus group discussions and in-depth interviews. The study is beneficial for improving the health care delivery system, health science education and research outcomes of academic health science centers in Ethiopia. The findings of this study will also help the policy makers to endorse legislations. The survey usually takes 30 to 40 minutes to complete. Whatever individual information you provide will be kept strictly confidential. Your participation is voluntarily and you can abstain from participation or withdraw consent any time in the process of the study. Withdrawal of consent will not have financial or other repercussions. Do you wish to participate in this study? Tick here: Accepted ☐ Declined ☐
Signature of data collector/ Interviewer _____ Date _____

SECTION 1: SOCIO-DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS

HEALTH FACILITY IDENTIFICATION (tick one)	Black lion Specialized Hospital (1) Jimma University Specialized Hospital St. Paul Hospital Hawassa University Referral Hospital		
What is your position	1. CEO/Equivalents 2. Chief clinical officer/medical director 3. College Dean 4. Medical school head/equivalent 5. Head, human resources 6. Head, finance		
What is your profession?	Physician, general (1) Physician, specialist (2) Nurse, degree and above (3) Health officer (4) Other health professional (5)(Specify)_____		
What is your education level	1. PhD 2. M.D 3. MPH/MSC/MA 4. BA/BSC 5. Diploma and below.		
What is your gender?	Male	Female	
	1	2	
How old are you?	_____ (years). If don't know enter three digit number= 999		
Marital status	Single, never married (1) Married or cohabiting (2) Divorced (3) Separated (4) Widowed (5)		
How long did you work in this facility?	_____ (Years)		
What is your total work experience?	_____ (Years)		
How much do you earn per month on regular basis?	_____ (Birr)		

SECTION 2: ALIGNMENT QUESTIONS

1. **Organizational Model (refer to the attachment)**

Which of the five organizational typologies below best describes the structure of your Academic Health science Center?					
Separated / Independent	***Clinical Enterprise***	***Academic Enterprise***	***Separated Practice Plan***	***Integrated***	***AHSC Score***
1	2	3	4	5	
Notes:					

2. **Mission Congruence**

What is the degree of congruence of the mission components listed below among the various entities within your AHSC?				
Mission Element	**Not a Shared Mission**	**Moderate Overlap**	**Shared Mission**	**AHSC Score**
Medical School Education	1	3	5	
Graduate Medical Education	1	3	5	
Basic Science Research	1	3	5	
Clinical Research	1	3	5	
Patient Care	1	3	5	
Community Service	1	3	5	
Notes:				

3. **Leadership Relationships**

How would you characterize the working relationships between the top leaders in your AHSC (Dean, Hospital CEO, and board chairperson) on the dimensions below?				
Relationship Dynamics	**Infrequently**	**Often**	**All of Most of the Time**	**AHSC Score**
Collaborate on Key Decisions	1	3	5	
Fully Share Operational and Financial Information	1	3	5	
Recognize the Value of Interdependence of Success Across Entities and Missions	1	3	5	

Willing to Compromise for the Greater Good	1	3	5	
Trust Each Other	1	3	5	
Notes:				

4. Strategic Alignment

Which of the following approaches to aligning strategies best characterizes your organizations?				
Separate Strategies, Across Missions And Entities That Are Not Inter-related	**Integrated Strategy For A Single Mission, e.g., Have An Integrated Clinical Or Research Strategy**	**Integrated Single Program Strategy That Crosses All Missions, e.g., Have An Integrated quality improvement Strategy That Includes Clinical, Research And Educational Components**	**Fully Integrated Strategy Across All Missions & Entities**	**AHSC Score**
1	2	3	4	
Notes:				

5. Governance Alignment

Which of the following governance models best describes your organizations?					
Separate Boards, Little or No Overlap, e.g., Under 25% Of Board Members	**Significant Overlap of Board Memberships, e.g., More Than 25% of Board Members**	**Joint Committees That Report To Entity Boards**	**Integrated Board Subcommittee with Delegated Authority For Coordination**	**Single Unified AHSC Board**	**AHSC Score**
1	2	3	4	5	
Notes:					

6. **Economic Alignment**

6.1. How much is your budget for this fiscal year? _____

6.2. To what level are financial resources (budgets) devolved within the AHSC?

Examples:

College/Faculty, School, or Department

How is the annual allocation to the above unit(s) determined?

Examples:

a) On a historical basis, adjusted through an annual "bidding" process managed by a central University budget-setting group, or

b) By a formula-driven Resource Allocation Model linked tightly to the devolved "unit's" financial forecasts of income and expenditure (E.g. annual revenue generation)

6.3. Once the annual budget is set, what degree of flexibility / autonomy does the devolved unit (and its head) have in deciding how to spend it?

Examples:

Freedom to spend non-staff as appropriate, but use of staff budget restricted to specific posts approved by "central" university group, or

a) Freedom (within the agreed strategic plan for the "unit") to decide on use of all budgets, including changing the "mix" of posts in the staff establishment, and virement from staff to non-staff budgets

6.4. **Funds Flow**

Which of the following approaches to funds flow best describes your organizations?				
Multiple historic, negotiated deals using varied payment methodologies	**Structured payment methodologies for purchasing faculty time and other services but not tied to strategic priorities across the enterprise**	**Structured methodologies plus explicit funding for strategic priorities across the enterprise**	**Structured methodologies, investment support and sharing of surpluses to align incentives**	**AHSC Score**
1	2	3	4	
Notes:				

7. **Reporting and Budgeting**

Which approach to reporting and budgeting best describes the degree of integration of your organizations?				
No combined reporting or financial planning	**Combined financial planning at a program level**	**Joint review of performance reports and coordinated budgeting**	**Integrated operating and capital planning and reporting**	**AHSC Score**
1	2	3	4	
Notes:				

8. **Management Alignment**

8.1. **Management Structure**

Which of the following management structures best describes your organizations?				
Separate management structures for physician and hospital departments	**Integrated management structure for physician & hospital services in a few areas, e.g., imaging, ED, CV services**	**Integrated physician and hospital management structures exists in many departments and programs**	**Fully integrated management structure across the entire enterprise bridging professional and technical departments and programs**	**AHSC Score**
1	2	3	4	
Notes:				

9. **Incentive and Performance Management**

Which of the following best describes your approach to incentive compensation and performance measurement for various types of leaders?				
Leadership Level	**Independent Performance Measures Not Coordinated Across Missions and Entities**	**Separate Performance Measures but Coordinated Across Missions and Entities**	**Shared Performance Measures Across Missions and Entities**	**AHSC Score**
Executive Leadership	1	3	5	
Academic Department heads	1	3	5	
Supportive service managers	1	3	5	
Clinical services managers	1	3	5	
Notes:				

10. **Summary Scores**

In summary, how would you rate the following:				
	Low	**Medium**	**High**	**AHSC Score**
Overall Degree of Strategic Alignment	1	3	5	
Overall Degree of Operational Alignment	1	3	5	
Will Alignment Become More Important in the Future	1	3	5	

11. What are your major challenges to achieve alignment?

1. _____
2. _____
3. _____
4. _____
5. _____

THANK YOU VERY MUCH FOR YOUR COOPERATION!

Governance of Teaching Hospitals in Ethiopia: Achieving Alignment in Academic Health Science

II. Hospital Leadership and Governance assessment Checklist

Yes = services or units were available (standard met)

No = Services or units were not available (standard unmet)

		Yes	No
1	A Governing Board has been established		
2	Terms of Reference for the Board are defined		
3	The Board meets at a minimum every quarter		
4	Board members participate in ongoing education		
5	There is a planned orientation programme for new Board members		
6	The hospital has a Statement of Vision, Mission and Values that has been approved by the Governing Board		
7	All staff have been oriented to the Hospital Vision, Mission and Values		
8	A CEO has been appointed		
9	The CEO has signed a job description that outlines his/her duties to lead the hospital		
10	The CEO is evaluated annually		
11	A Senior Management Team has been established. Membership of the SMT has been approved by the Governing Board		
12	Terms of Reference for the SMT are defined		
13	The SMT meets as a minimum every two weeks		
14	The hospital has a strategic plan that has been approved by the Governing Board		
15	The hospital has an annual plan that has been approved by the Governing Board		
16	All staff have been oriented to the hospital strategic and annual plans		
17	An Essential Service Package has been defined for the hospital		

1. Assessment of governing board functioning

1. The Hospital Governing Board is developed using clear and transparent systems and processes and includes a representative sample of community members.

- Interview CEO to identify process of Board selection and appointment
- Obtain list of Board members and confirm that there is community representation
- Obtain term of reference for board activities and confirm that the board has regular activities schedule.

2. An assigned Board Chairperson leads and manages Board activities.

- Identify Board Chairperson
- Confirm that he/she leads the Board by setting agendas, calling Board meetings, creating goals for the Board
- Obtain the minutes of board meetings and confirm that the chair leads the board activities.

3. The Board selects the Chief Executive Officer (CEO), who leads on all Hospital operations and functions.

- Interview CEO. Confirm that he/she was selected by Board
- Review Job Description or duties of CEO
- Observe letter of assignment

4. The Board approves annual and strategic plans for the Hospital to achieve its goal of improving its community's health and welfare.

- View strategic and annual plans
- Confirm that both were approved by Board (by reviewing Board minutes, or confirming signature of CEO or Board Chair on plans).

5. The Board has open communication via effective and regular meetings and written minutes of meetings, which are reviewed and approved by vote of the Board members.

- View minutes of previous 3 Board meetings
- Confirm that approval of previous meeting minutes is documented in minutes of subsequent meeting
- Interview CEO – check frequency and regularity of Board meetings

6. The CEO is evaluated annually, consistent with FMOH or Regional Legislation to ensure he/she is meeting operational and strategic plans as established by the Board and the CEO collectively.

- View most recent evaluation of CEO
- Confirm that evaluation conducted within past year

Governance of Teaching Hospitals in Ethiopia: Achieving Alignment in Academic Health Science

III. In-depth interview guide

Hello! My name is _____. I am working with a team of researchers from Jimma University, college of health science, department of health economics, management and policy. The team is conducting a study on "Governance of Teaching Hospitals in Ethiopia: Achieving Alignment in Academic Health Science." The purpose of the study is to assess the alignment of teaching hospitals in Ethiopia and identify their major challenges to achieve alignment in governance, management, economics/Fund flow and strategies. The study is beneficial for improving the health care delivery system, health science education and research outcomes of academic health science centers in Ethiopia. The findings of this study will also help the policy makers to endorse legislations. I would like to ask you some questions regarding the governance and alignment strategy of the hospital you chair its governing board.

1. Would you please explain the details about the governance structure of your AHSC?
2. Who are the members of the governing board?
3. Does the hospital have a Statement of Vision, Mission and Values that has been approved by the Governing Board? Explain essence of the mission, vision and values of your hospital. Provide copy of the statement?
4. How do you see the congruency of those missions of clinical services, teaching and research?
5. How do you appoint persons for Leadership in your AHSC?
6. Who practice sole authority over the AHSC?
7. Do you have outcome measures for:
   - 7.1. Academic performance
   - 7.2. Research performance
   - 7.3. Clinical performance
   - 7.4. Development (community) services?

7.5. Satisfaction

8. According to the conceptual framework adapted from the chartis group, overall alignment is realized by optimizing governance, strategy, management and economics to maximum achievable levels. Please tell me

   8.1. Your governance alignment strategy
   8.2. Management alignment strategy
   8.3. Economic /funds flow alignment strategy and
   8.4. Strategic alignment strategy

9. How do you describe the overall alignment of your hospital based on the four dimensions of alignment?

10. Are There Indicators That Suggest Alignment Has Contributed To Improved Performance in your AHSC?

11. How is strategy developed in the AHSC and its Colleges/Schools/Departments?

12. Do you have any issue you think is missed from our discussion?

Governance of Teaching Hospitals in Ethiopia: Achieving Alignment in Academic Health Sciences

IV. Topic guide for FGD

Fundamental Alignment Requirements

- There are 2 key precursor requirements for achieving alignment among the various components of an AHSC (academic health science centers) which must be in place before considering the four major elements of the framework

1. Mission Congruity

- Is there sufficient similarity or overlap in the missions of the AHSC components (medical school, and hospital) to require close collaboration?
- Are the missions of the AHSC equally communicated?
- Which mission component do you think is given priority at your AHSC?

2. Leadership Relationships

Can the most senior leaders (e.g. Dean and Hospital CEO) work together? Do they trust one another? Do the leaders see the value of collaboration?

3. Governance of the AHSC

- What are the positive experiences?
- What are the major challenges?

4. Economic Alignment

4.1. How much is your budget for this fiscal year? _____

4.2. To what level are financial resources (budgets) devolved within the AHSC?
Examples:
College/Faculty, School, or Department

4.3. How is the annual allocation to the above unit(s) determined?
Examples:

c) On a historical basis, adjusted through an annual "bidding" process managed by a central University budget-setting group, or
d) By a formula-driven Resource Allocation Model linked tightly to the devolved "unit's" financial forecasts of income and expenditure (E.g. annual revenue generation)

4.4. Once the annual budget is set, what degree of flexibility / autonomy does the devolved unit (and its head) have in deciding how to spend it?

Examples:

b) Freedom to spend non-staff as appropriate, but use of staff budget restricted to specific posts approved by "central" university group, or
c) Freedom (within the agreed strategic plan for the "unit") to decide on use of all budgets, including changing the "mix" of posts in the staff establishment, and virement from staff to non-staff budgets

5. How do you describe the alignment of this AHSC in terms of

4.5. Governance

4.6. Management economic and

4.7. Strategic alignments

Annex II: summary tables

Annex II A: Governance status of teaching Hospitals in Ethiopia, May 2015.

S.		Yes	No
1	A Governing Board has been established	4	
2	Terms of Reference for the Board are defined	4	
3	The Board meets at a minimum every quarter	4	
4	Board members participate in ongoing education	3	1
5	There is a planned orientation programme for new Board members	2	2
6	The hospital has a Statement of Vision, Mission and Values that has been approved by the Governing Board	4	
7	All staff have been oriented to the Hospital Vision, Mission and Values	1	3
8	A CEO has been appointed	3	1
9	The CEO has signed a job description that outlines his/her duties to lead the hospital	2	2
10	The CEO is evaluated annually	1	3
11	A Senior Management Team has been established. Membership of the SMT has been approved by the Governing Board	3	1
12	Terms of Reference for the SMT are defined	4	
13	The SMT meets as a minimum every two weeks	3	1
14	The hospital has a strategic plan that has been approved by the Governing Board	3	1
15	The hospital has an annual plan that has been approved by the Governing Board	4	
16	All staff have been oriented to the hospital strategic and annual plans	4	
17	An Essential Service Package has been defined for the hospital	4	

Annex II B: Reporting and budgeting alignment of AHSCs in Ethiopia, May 2015.

Reporting and budgeting	Frequency	Percent
No combined reporting or financial planning	2	11.8
Combined financial planning at a program level	6	35.3
Joint review of performance reports and coordinated budgeting	6	35.3
Integrated operating and capital planning and reporting	3	17.6

Annex II C: Management Alignment of AHSCs in Ethiopia, May 2015

Management structure	Frequency(n=17)	Percent
Separate management structures for physician and hospital departments	4	23.5
Integrated management structure for physician & hospital services in a few areas, e.g., imaging, ED, CV services	3	17.6
Integrated physician and hospital management structures exists in many departments and programs	6	35.3
Fully integrated management structure across the entire enterprise bridging professional and technical departments and programs	4	23.5

Annex II D: Overall Alignment of AHSCs in Ethiopia, May 2015

In summary, how would you rate the following:	**Low**	**Medium**	**High**
Overall Degree of Strategic Alignment	3(17.6)	13(76.5)	5(5.6)
Overall Degree of Operational Alignment	1(5.9)	15(88.2)	1(5.9)
Will Alignment Become More Important in the Future	2(11.8)	3(17.6)	12(70.6)

DECLARATION

I, the undersigned, declare that this thesis is my original work, has not been presented for a degree in this or any other university and that all sources of materials used for the thesis have been fully acknowledged.

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