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Differences in the Role and Administrative Relationships of Medical Directors in Community and Migrant Health Care Centers

DIFFERENCES IN THE ROLE AND ADMINISTRATIVE RELATIONSHIPS OF MEDICAL DIRECTORS IN COMMUNITY AND MIGRANT HEALTH CARE CENTERS

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Biographical Sketch

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Michael E. Samuels, Dr. P.H., is an Associate Professor at the University of South Carolina. He has written numerous papers on rural primary care systems including, HIV/AIDS service delivery, recruitment, retention, and utilization of rural primary care physicians, nurse practitioners, and physician assistants, and certified nurse midwives. In addition, he has examined outreach and health intervention for the poor and minorities, and completed considerable research on community and migrant health centers. His teaching areas include health policy and politics, rural health, health professions, and public health history.

Leiyu Shi, Dr.PH, MBA, MPA, is Associate Professor, Department of Health Policy and Management, Johns Hopkins School of Public Health & Hygiene. He is also Associate Director of the Johns Hopkins Primary Care Policy Center for the Underserved. His research contributions concern primary care with particular emphasis on vulnerable populations. He is the author of the books Health Services Research Methods and Delivering Healthcare In America, and over 50 papers.

DIFFERENCES IN THE ROLE AND ADMINISTRATIVE RELATIONSHIPS OF MEDICAL DIRECTORS IN COMMUNITY AND MIGRANT HEALTH CARE CENTERS

Abstract

This study examined differences in medical directors of Community and Migrant Health Centers (C/MHCs) in the United States based on the size of the center, including demographics, job characteristics, roles, and their relationships with C/MHC administrators and governing boards. Data for this analysis came from a 1996 cross-sectional survey of Community and Migrant Health Center medical. A total of 411 centers (68.3% surveyed) responded to the survey including 240 rural centers (67.4%) and 171 urban (68.7%) centers. Small centers were categorized as those with three or fewer physicians (n=136), medium centers had more than three, but less than eight FTE physicians (n=141), and large had eight or more FTE physicians (n=109). Several differences were found regarding the medical directors' roles and relationships with the administrator and governing board based on the size of the center. Large C/MHC medical directors had more autonomy than did small and medium C/MHC medical directors including in the areas of managing clinical staff, the budget, and strategic planning activities. They spent more time cultivating community resources than small and medium center counterparts and they were more likely to possess the management skills needed to in their role than do those in small and medium centers. They also reported a stronger working relationship with the CMHC administrator and had more input with the C/MHC board than small center medical directors.

For more than 30 years, Community and Migrant Health Centers (C/MHCs) have provided primary care and preventive health services to America's poor and medically underserved. The C/MHCs were created in the mid-1960s as part of President Lyndon Johnson's War on Poverty Program to address the health care shortage in rural and inner-city areas. Despite an overall surplus of physicians, particularly specialists, in the U.S., there remains a significant shortage of physicians in rural and inner city areas (Shi, 1995; Rickets, 1991). Over the years, C/MHCs have become major providers for primary health care services in these underserved areas, with over 600 programs providing care in more than 1,800 centers (USHHS, 1994). The program has an operating budget in excess of $1 billion dollars and serves more than seven million individuals. Service recipients of these centers are primarily minority groups including 31 percent African-American, 28 percent Hispanic, and 5 percent from other minorities (Samuels, et al, 1995). C/MHCs are expected to continue to play an important role in providing care to the indigent and medically underserved.

C/MHCs are governed by a consumer-dominated board of directors which oversees each center's activities and takes responsibility for adopting policies, approving the center's budget, and hiring the administrator. The administrator of the C/MHC is the governing officer of the organization and, among other duties, oversees the recruitment and appointment of the medical director.

The C/MHC physician provides primary and preventative care to allow comprehensive and coordinated health care services and continuity of care within a single institutional setting. In most of these centers, supervision of medical and clinical services is the responsibility of the center's medical director.

Most medical directors in the C/MHC are the primary care physicians. Our previous study of medical director satisfaction comparing rural and urban center medical directors found that 58.8% of medical directors were from General and Family Practice physicians (69.0% rural and 44.3% urban), 18.8% were Internal Medicine physicians (12.2% rural and 28.1% urban), 14.0% were Pediatricians (10.0% rural and 19.2% urban), and 8.6% were "other" (Shi, et al, 1997). In this study, the role and administrative relationships of the medical director in C/MHCs are compared based on the size of the center. It also describes differences in demographic and practice characteristics of the medical directors based on the size of the center.

Little research has been done on medical directors in C/MHCs. As an employee of the center, the medical director typically reports directly to the center administrator or executive director. Other organizations such as nursing facilities, community mental health centers as well as other institutional health care settings, use a similar organizational structure (Norris and Gilbert, 1996; Diamond, et al, 1995; and, Fanale, 1989). In these other health care settings, the medical director is involved with developing administrative and clinical staff relationships, committee responsibilities, clinical responsibilities, development of policies and procedures, teaching, and research.

However, it is the physician-dominated aspect of care in the C/MHC that sets it apart from those other health care organizations. One preliminary finding of our research found that most of the medical directors, particularly in small and medium size centers, spent a large proportion of their full-time duties providing patient care. Previous research has shown that autonomy over medical and clinical staff has is a priority for medical directors, particularly regarding the recruitment, supervision, and maintenance of the

medical and clinical staff (Fanale, 1989; Fogel, 1989). The problem of retaining these physicians may continue if their motivation for accepting C/MHC assignments is based primarily on short-term financial obligations (Pathman, et. al., 1994; Kent, 1995; Manch, 1993).

The medical director's professional allegiance is challenged when choices must be made between clinical and administrative or financial matters. While the medical director has been trained to make clinical diagnoses, administrative issues may be a new experience. This management inexperience requires the C/MHC medical director to seek assistance from the administrator when choices must be made between service to patients and the financial concerns of the center. Thus, an effective medical director is forced to balance management and clinical responsibilities as well as those responsibilities to the community (Manch, 1993).

METHODS

Data

The research is based on data from a 1996 national survey of C/MHC medical directors conducted by the authors under contract with the National Rural Health Association for the Bureau of Primary Health Care, Health Resources and Services Administration. Medical directors of all C/MHCs funded by the Bureau of Primary Health Care were targeted for this study. A list of medical directors of all 329 and 330 funded C/MHC programs was provided by the Bureau of Primary Health Care (n = 610) for all medical directors as of August, 1995 (USPHS, 1995). The list was segmented into states and regions and submitted to state primary care associations for confirmation or update of the information.

The survey questionnaire was developed based on a thorough review of the literature on the clinical and administrative activities by health professionals in general and physicians in particular. It was then submitted to academicians, researchers, and state and federal associations affiliated with C/MHCs to review for completeness. With the assistance of the South Carolina Primary Care Association, administrators and medical directors from the 16 community health centers in South Carolina were also consulted for their comments and recommendations. Their comments were incorporated in the revised questionnaire. In addition, a pre-test of the survey was completed by 15 out of 16 medical directors of all C/MHCs in South Carolina (n=16). Based on the results of the extensive review and pre-test, the final questionnaire encompassed five legal pages in length asking 142 questions covering 10 separate sections.

The modified questionnaire was mailed to the medical directors of 610 C/MHCs across the United States and Puerto Rico. Non-respondents were sent a second questionnaire and further non-respondents were faxed a reminder about the questionnaire and asked to fax or mail their responses. As a result of the mailings, it was found that 29 C/MHCs either had closed, merged with another center, or did not have a medical director, thereby reducing the population sample to 605 centers. Overall, 68.3 percent of the C/MHCs responded (n=411) including 20 respondents who did not complete the entire survey, were not medical directors, or were from centers that did not have a medical director. In these cases, only the data that was completed was entered into the study. In this study only physician respondents were included.

Measures

To determine the location status of the center (rural v. urban), information was used from the Bureau of Common Reporting Requirements (BCRR) from the U.S. Department of Health and Human Services data and designation provided by the Bureau of Primary Care. Size of the center was based upon the total FTE size of the medical and clinical staff. Frequency measurements were taken of each center based on the size of its medical and/or clinical staff, and the distributions were used to assign each center to one of three different size categories: small, medium, or large.

Questions related to the demographic and practice characteristics of the medical directors and factors associated with their role and their relationship with the administrator and governing board were included in the survey. Several measures were included regarding the practice characteristics of the medical directors regarding their experience, hours worked, income and number of meetings with the center administrator.

Factors associated with the role of the medical director and their relationship with the administrator and governing board were drawn largely from the literature as well as the interviews with medical directors and administrators. Five-point Likert Scales were used to ask medical directors to measure their levels of agreement or importance with a variety of factors regarding the role of the medical director and the medical director's relationship with the administrator.

Several measures were developed to define the role of the medical director, including supervisory functions, policy development, community interaction, and clinical and administrative activities. Medical Directors were also asked about their perception of their management skills and their intention towards continuing at the C/MHC.

Thirteen questions were asked of medical directors regarding their perception of their relationship with the administrator and governing board. Most of the medical director/administrator relationship questions pertain to matters of administrative and clinical autonomy, working relationships, and management philosophy. With regard to the medical director/governing board relationship, most questions pertain to the medical director's input to the board regarding their administrative and clinical duties.

Analysis

Univariate statistics were used to address the first study objective related to the descriptive information regarding the medical directors. Sample distributions and means were calculated to draw a profile of C/MHC medical directors. Chi-square statistical analysis was used to compare differences between two or more categorical variables. For comparing differences between two groups (e.g.. rural/urban designation), t-tests for independent means were calculated. In this study, frequency measurements were taken of

each center based on the size of its medical and/or clinical staff, and the distributions were used to assign each center to one of three different size categories: small, medium, or large. ANOVA statistics were used to determine differences in the means for the respondents based on the size of the center. The literature suggests that differences exist in the amount of time spent and level of work based on the number of physicians in the practice group (Skolnik, et. al., 1993).

RESULTS

The frequency distributions used to determine the size of the C/MHCs indicated that 35.2% of the centers were classified as small (3.0 FTE physicians or less), 36.3% were medium (more than 3.0 FTE, but less than 8.0 FTE physicians), and 28.5% were large (more than 8.0 FTE physicians). Table 1 shows the size distribution of those centers in rural and urban locations. Rural centers were predominantly small (78.5%, $p<.01$) and the majority of the urban centers were large (62.4%, $p<.01$).

Table 1 also describes the demographic and work characteristics of the Community and Migrant Health Center Medical Directors by location and size of the center. The data reveals that the typical C/MHC medical director is male (67.8%), white (66.9%), married (82.8%), and has at least one child (58.4%). Women and minority medical directors were more likely to work in large centers than small or medium centers ($p<.05$). MDs comprised 88.1% of the respondents and 6.8% were DOs. The other directors of clinical/medical care came from a variety of other health care backgrounds including nurse practitioners, physician assistants, registered nurses, or dentists. A few

respondents were in charge of the medical aspects of their agency, but the center used a voucher system or contractual physicians to provide direct medical care.

More than 90% of the medical directors were primary care physicians including general and family practice physicians (58.8%), internists (18.8%), and pediatricians (14.0%). Included in the "other" category were physicians specializing in OB-GYN, general surgery, preventative medicine, psychiatry, as well as non-physician specialties such as dentistry, physician assistants, and certified nurse practitioners. The proportion of general and family practice physicians was greater in and small (72.8%) centers than large centers (33.0%, $p<.01$). Internal medicine and pediatricians were more likely to practice in large centers than in small or medium sized centers ($p<.01$). The majority of medical directors were board certified (85.4%) or board eligible (11.0%).

The table also shows that the current C/MHC administrator appointed 67.9% of the medical directors. The majority of the respondents (77.4%) had hospital privileges. Most of the respondents worked at multi-site facilities (62.2%).

Table 1 about here

Table 2 describes the job characteristics of the medical directors. On average, the C/MHC medical director has been in medical practice for more than 12 years. Large center medical directors averaged more than 15 years in practice which was significantly higher than small or medium center medical directors ($p<.01$). Large center medical directors averaged nearly six years in that job, compared to 4.25 years for medium center medical directors and less than 4 years for small center medical directors ($p<.01$).

As expected large center ($p<.01$) medical directors see fewer patients than small and medium center medical directors though there were no significant differences in the

average number of hours worked each week at the center. Medical director income was significantly associated with the size of the center. In our previous study, we found that urban C/MHC medical directors had a higher salary ($105,000) than rural medical directors ($96,000). This study shows the increase in average income is also a reflection of the size of the center. Small center medical directors averaged less than $90,000 while medium size center medical directors averaged just over $101,000 and large center medical directors earned more than $114,000 ($p<.01$).

The table also shows the distribution of time spent by medical directors in their various work activities. As expected, small center and medium center medical directors spent more time on patient care (28.22 hours and 25.5 hours respectively) than large center medical directors (16.8 hours, $p<.01$). Large center medical directors spent more time on supervisory activities (6.83 hours, $p<.05$), other administrative duties (6.33 hours, $p<.05$), and quality assurance (2.65 hours, $p<.05$) than small and medium center medical directors.

The medical directors averaged nearly four formal meetings (e.g., staff meetings, committee meetings, planning meetings, etc.) with the center administrator each month. Large center medical directors had, on average, more formal meetings with the administrator than small and medium sized center medical directors. Medium sized center medical directors averaged more meetings with the administrator than small center medical directors.

(Table 2 About Here)

Role of the Medical Director

Medical directors were asked their level of agreement with 15 statements designed to measure their role in the C/MHC. The results of these findings are presented in Table 4. Overall, medical directors appear to be in general agreement with all of the statements, although for many of the statements, the level of agreement varies depending upon the location or the size of the center. The majority of medical directors generally agreed that they had a clear understanding of their role as medical director (4.02 on a 5-point scale) (40.9% strongly agreed, 33.5% somewhat agreed, 15.6% were neutral, 6.6% somewhat disagreed, and 3.3% strongly disagreed). Medical directors from large C/MHCs (4.32) indicated a higher level of agreement with the statement than those from small (3.88) and medium (3.94) C/MHCs ($p<.01$).

Large (4.59) center medical directors were more likely to be involved in the development of policies and procedures for medical care than small (4.29) or medium (4.30) center medical directors ($p<.05$). Hiring and firing decisions regarding medical and clinical staff were more likely to be made by large center (3.74) medical directors than small center medical directors (3.09, $p<.001$). Large center medical directors (4.09) were more likely to be involved in education and training programs than medical directors from small (3.67) and medium centers (3.84, $p<.01$).

Large center medical directors (4.07) were more likely to be involved in resolving problems with the medical community than small center medical directors (3.67, $p<.01$). They were also more likely to be involved in developing community relationships than small and medium center medical directors (3.72 vs. 3.43 and 3.37 respectively, $p<.001$). Medical directors in large C/MHCs (3.44) were more involved in budget preparation than

small center (2.86) and medium center (2.87) medical directors ($p<.05$). Large center medical directors (4.16) more likely to be involved in long range planning than small center medical directors (3.62, $p<.01$).

Large center medical directors (4.11) were more involved than small and medium center medical directors (3.78/3.81, $p<.05$). Large center medical directors (4.01) reported that they were more likely to possess the management skills necessary to perform their duties as medical directors than small C/MHC (3.59) and medium C/MHC (3.65) medical directors ($p<.01$). Those sampled were asked their intentions regarding continuing in their role as medical director at the C/MHC as well as continuing with the C/MHC as a physician in the foreseeable future. In both questions, large center medical directors (4.20, 4.42) were more likely to continue in their role or continue with the C/MHC than small (3.81, 3.99) and medium (3.80, 4.01) size center directors ($p<.05$, .01).

(Table 3 About Here)

Medical Director/Administrator Relationship

In response to questions regarding the medical directors' relationships with the C/MHC administrator and governing board (Table 5), the majority generally agreed on all questions. Large center medical directors were more likely to differ regarding their perceptions of their relationships with the C/MHC administrator than do small and medium center medical directors.

Questions regarding the medical directors' autonomy found large center and medium center medical directors differing in their perception of the level of support from the administrator. Large center medical directors (3.79) indicated that the administrators

were more likely to give them autonomy in all personnel matters involving clinical staff than medium center medical directors (3.27, $p<.01$). They were also more likely to report greater autonomy in hiring and firing decisions for clinical staff than medium size center medical directors (3.67 large C/MHC vs. 3.18 medium C/MHC, $p<.05$). Large C/MHC medical directors (3.67) reported they were more likely to agree with the administrator on all matters related to the medical and clinical decisions than small (3.38) and medium (3.34) C/MHC medical directors. Large C/MHC medical directors (3.62) were more likely to have more input to the board on financial, personnel, and other policy matters than small center medical directors (3.20, $p<.05$).

(Table 4 about here)

DISCUSSION

This study confirms that the level of administrative role versus clinical role is impacted by the size of the center. It found several differences in the role and relationships of medical directors in C/MHCs when comparing based on center size. The findings indicate that many of the differences are likely the result of the size of the clinical staff of the center rather than merely based on their urban or rural location, supporting findings of other studies (Skolnik, et. al., 1993). While small centers were likely to be rural and large centers were likely to be urban, there were significant numbers of small and large centers in both settings, while medium size C/MHCs were evenly distributed between rural and urban location.

Our study has provided a profile of the activities of medical directors in C/MHCs and their relationships with the administrator and governing board. A few interesting, if not obvious findings were made based on the size of the health center including the likelihood that general and family practitioners were more likely to work in small settings while pediatricians in internists were more likely to be found in medium and larger centers. Large center medical directors had more medical and job experience, earned higher salaries, spent more time on administrative activities and saw fewer patients than those who work in small and medium center size centers.

With regard to their role, large center medical directors were more likely to be involved in developing policies and procedures for their departments, approving education and training programs, and in developing community relationships than medium and small center medical directors. They were also more likely to have the final word on hiring and firing of medical staff than were medical directors in smaller settings.

Large C/MHC medical directors reported having a better understanding of their role as medical director and were more likely to possess the necessary management skills for performance of their duties than small and medium C/MHC medical directors. They were also more likely to stay on at the C/MHC as medical director or in some other capacity than small and medium center medical directors were.

Most of the respondents indicated a favorable relationship with the administrator and the governing board. However, it is clear that large center medical directors are given more autonomy in the operation of the clinical component of the organization than the smaller settings. What is interesting is that differences were more distinct between large centers and medium centers than between large centers and small centers. When considering the medium C/MHC medical directors were more likely to have greater patient care work loads than large center medical directors and greater administrative functions than small center medical directors, less autonomy in decision making activities can have a negative affect on job performance. It is in these centers that the juggling of clinical and administrative functions may become more difficult. These differences may also affect the satisfaction levels of medical directors in the medium centers and merits further investigation.

Additional study is needed to determine whether the ability to manage effectively influences the medical directors' satisfaction or retention levels. In the health care field, there are differing views as to the role of the physician. This is particularly true with regard to the medical director of community and migrant health care centers in that many view their primary function as that as physician - - doing the work for which they were trained. The full-time physician manager is a relatively new phenomenon (Ashmos, et.

al., 1994). Most physician managers, particularly C/MHC medical directors maintain some form of clinical practice along with their management responsibilities. With the trends towards managed care, management requirements will become more complex. Medical directors may find it increasingly difficult to maintain their clinical responsibilities and still perform their management duties (LeTourneau and Curry, 1997).

The title "medical director" assumes a position of leadership within the organization. For the C/MHC medical director, leadership must be taken in the interest of the clinical staff, administrative staff, the patients, and the service community. To be successful as medical directors, these physicians must be prepared to shift their responsibilities back and forth between clinician and manager. An effective medical director may need to shed many of their clinical attitudes and be able to apply business and management skills. This is especially true for those centers that face an uncertain financial future. The medical director must bridge the gap between the clinical staff and the administrative staff. This means bringing the clinical perspective to administrators and bringing the administrative perspective to clinicians. For the C/MHC medical director to be successful in this requires honing their management skills and receiving training to be able to perform in that function. C/MHC administrators and funding agencies should assist the medical directors in obtaining these skills. It may also be a necessary component for retaining these physicians as their medical director.

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Table 1. Demographic Characteristics (Percent) of Medical Directors at Community and Migrant Health Centers by Size (Small/Medium/Large) (Percent)

	Total (%) (n=411)	Small (%) (n=136)	Medium (%) (n=141)	Large (%) (n=109)
Location of Facility				
Rural	57.2	78.5**	48.2	37.6
Urban	42.8	21.5	51.8	62.4**
Sex				
Male	67.8	68.8	70.7	58.8
Female	32.2	31.3	29.3	41.2
Race				
White, Non-Hispanic	66.9	71.6	68.8	55.6
African American	15.2	10.4	14.9	23.1
Hispanic	8.3	6.0	9.2	11.1
Asian	8.1	11.2	6.4	7.4
Other	1.6	0.7	0.7	2.8
Marital Status				
Married	82.8	91.8	85.3	88.2
Single	17.2	8.2	14.7	11.8
Education				
MD	88.1	84.3	93.5	92.7
DO	6.8	6.7	6.4	6.4
Other	4.9	9.0**	--	0.9
Practice Specialty				
Gen./Family Practice	58.8	72.8**	66.0	33.0
Internal Medicine	18.8	14.7	17.0	27.5**
Pediatrics	14.0	4.4	14.9	24.8**
Other	8.6	8.1	2.1	14.7
Certification Status				
Board Certified	85.4	81.8	88.7	82.4
Board Eligible	11.0	10.6	8.5	13.0
Not Board Eligible	3.6	7.6	2.8	4.7
Appointed by:				
Current Admin.	67.9	63.9	66.9	72.5
Previous Admin.	23.9	23.3	26.6	22.9
Other	8.2	12.8	6.5	4.6
Hospital Privileges Status				
Have Privileges	77.4	68.7	79.0	89.7**
No Privileges	12.6	14.2	11.6	10.3
No Hospital in Area	10.0	17.1**	9.4	--
Number of Facilities				
Single-site	37.8	55.9	40.4	11.9
Multi-site	62.2	44.1	59.6	88.1**

Differences between Small/Medium/Large C/MHCs were evaluated by chi-square tests for categorical measures.
*$P < .05$ **$P < .01$

Table 1. Demographic Characteristics of Medical Directors in Small, Medium and Large C/MHCs (Percent)

	Total (n=411)	Small (n=136)	Medium (n=141)	Large (n=109)
Location of Facility				
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Urban	42.8	21.5	51.8	62.4**
Sex				
Male	67.8	68.8	70.7	58.8
Female	32.2	31.3	29.3	41.2
Race				
White, Non-Hispanic	66.9	71.6	68.8	55.6
African American	15.2	10.4	14.9	23.1
Hispanic	8.3	6.0	9.2	11.1
Asian	8.1	11.2	6.4	7.4
Other	1.6	0.7	0.7	2.8
Marital Status				
Married	82.8	91.8	85.3	88.2
Single	17.2	8.2	14.7	11.8
Education				
MD	88.1	84.3	93.5	92.7
DO	6.8	6.7	6.4	6.4
Other	4.9	9.0**	--	0.9
Practice Specialty				
Gen./Family Practice	58.8	72.8**	66.0	33.0
Internal Medicine	18.8	14.7	17.0	27.5**
Pediatrics	14.0	4.4	14.9	24.8**
Other	8.6	8.1	2.1	14.7
Certification Status				
Board Certified	85.4	81.8	88.7	82.4
Board Eligible	11.0	10.6	8.5	13.0
Not Board Eligible	3.6	7.6	2.8	4.7
Appointed by:				
Current Admin.	67.9	63.9	66.9	72.5
Previous Admin.	23.9	23.3	26.6	22.9
Other	8.2	12.8	6.5	4.6
Hosital Privileges Status				
Have Privileges	77.4	68.7	79.0	89.7**
No Privileges	12.6	14.2	11.6	10.3
No Hospital in Area	10.0	17.1**	9.4	--
Number of Facilities				
Single-site	37.8	55.9	40.4	11.9
Multi-site	62.2	44.1	59.6	88.1**

Chi-square tests between Small/Medium/Large C/ MHC
*$P<.05$ ** $P<.01$

Table 2. Job Characteristics of Small, Medium and Large C/MHC Medical Directors (Mean and Standard Error)

	Total (n=411)	Small (n=136)	Med. (n=141)	Large (n=109)
Years in Practice	12.75 (9.45)	12.41* (10.25)	11.03 (8.25)	15.29* (9.36)
Years as Medical Director	4.60 (4.25)	3.94 (3.95)	4.25 (4.04)	5.92 (4.70)
No. of Patients Seen/Week	69.4 (42.55)	76.19 (46.28)	74.33 (37.61)	54.49* (40.61)
Annual Income (In Thousands)	100.24 (30.25)	89.95[1] (26.87)	101.07[2] (27.30)	114.26[1] (30.69)
No. of Hours Worked/Week	47.2 (14.22)	45.39 (15.22)	47.90 (14.24)	48.08 (13.17)
Time Spent (Hrs./wk)				
Center Patient Care	23.91 (12.20)	28.22 (11.56)	25.50 (11.69)	16.80* (10.04)
Supervisory Activities	4.54 (5.57)	3.47 (4.28)	3.70 (5.21)	6.83* (6.69)
Other Administration	4.37 (6.45)	2.63 (5.32)	4.72 (6.13)	6.33* (7.68)
Hospital Patient Care	4.10 (5.15)	4.02 (6.59)	4.66 (4.91)	3.96 (4.91)
Committees/Meetings	3.69 (4.31)	2.30 (3.19)	3.51 (4.16)	5.82 (4.96)
Patient Records	2.81 (3.68)	3.33 (4.76)	2.48 (3.00)	2.67 (3.05)
Teaching/Training	2.14 (3.15)	1.81 (2.79)	2.39 (3.81)	2.28* (2.69)
Quality Assurance	1.93 (2.43)	1.55 (2.03)	1.59 (2.32)	2.65 (2.44)
Other Duties	1.05 (3.23)	0.96 (2.58)	1.07 (4.22)	1.18 (2.61)
Research	0.20 (0.81)	0.07 (0.43)	0.20 (0.77)	0.31 (1.15)
No. of Informal Mtgs/Wk with Admin.	3.97 (2.97)	3.02 (1.96)	4.09 (2.56)	5.12 (3.97)
No. of Formal Mtgs/Wk with Admin.	7.60 (8.37)	7.33 (6.39)	6.93 (6.55)	9.32 (12.20)

Level of significance of differences between groups at: *p<0.05 level, **p<0.01 level [1, 2, 3] Rank between groups (Scheffe') at 0.05 level of comparison. N = 385-389

TABLE 3. Role of Medical Directors in Small, Medium and Large C/MHCs (Mean Score and Standard Error)

Role. As medical director I:	Total (n=411)	Small (n=136)	Medium (n=141)	Large (n=109
Understand responsibilities as medical director.	4.02 (1.06)	3.88 (1.15)	3.94 (1.06)	4.32** (0.92)
Am primary supervisor for all clinical staff.	3.94 (1.20)	3.95 (1.18)	3.80 (1.30)	4.10 (1.10)
Have final approval on hiring/firing medical staff.	3.36 (1.42)	3.09 (1.48)	3.30 (1.39)	3.74** (1.30)
Involved in developing policies and procedures for medical care.	4.37 (0.90)	4.29 (0.99)	4.30 (0.97)	4.59* (0.67)
Responsible for approving education and training.	3.74 (1.09)	3.55 (1.48)	3.64 (1.13)	4.09** (0.91)
Resolve problems with the medical community.	3.84 (0.98)	3.67 (1.02)	3.84 (0.96)	4.07** (0.92)
Very involved in developing community relationships.	3.49 (1.29)	3.43 (1.15)	3.37 (1.09)	3.72** (1.01)
Am very involved with development of budget for clinical/medical services.	3.04 (1.29)	3.09 (1.47)	3.30 (1.31)	3.74* (1.30)
Am major participant in center long-range planning.	3.86 (1.22)	3.62 (1.29)	3.82 (1.19)	4.16** (1.15)
Am very involved with the C/MHC governing board.	3.40 (1.27)	3.33 (1.20)	3.32 (1.29)	3.62 (1.32)
Am major participant in utilization review.	3.89 (1.08)	3.78 (1.13)	3.81 (1.09)	4.11* (0.97)
Am major participant in QA and CQI	4.38 (0.86)	4.33 (0.94)	4.30 (0.91)	4.55 (0.69)
Possess necessary management skills for duties as medical director.	3.72 (1.04)	3.59 (1.05)	3.65 (1.03)	4.01** (1.00)
Plan to continue as medical director.	3.92 (1.22)	3.81 (1.28)	3.80 (1.23)	4.20* (1.12)
Plan to remain with center in the foreseeable future.	4.11 (1.10)	3.99[2] (1.20)	4.01[2] (1.124)	4.42** (0.87)

5-point Likert Scale: 1 = Strongly Disagree, 2 = Somewhat Disagree, 3 = Neutral, 4 = Somewhat Agree, 5 = Strongly Agree

Significance of differences between groups at: *p<0.05 level, **p<0.01

[1, 2, 3] Scheffe' Rank between groups at 0.05 level of comparison.

N = 385-389

TABLE 4. Medical Directors Relationships with Admin./Governing Board in Small, Medium and Large C/MHCs (Mean Score and Standard Error)

	Total (n=411)	Small (n=136)	Medium (n=141)	Large (n=109)
Administrator and I share same goals and vision for the center.	4.08 (.98)	4.05 (1.02)	4.06 (0.97)	4.18 (0.94)
Administrator gives me autonomy in personnel matters with clinical staff.	3.48 (1.32)	3.44 (1.31)	3.27[2] (1.40)	3.79** (1.19)
Administrator gives me autonomy on hiring/firing decisions of clinical staff.	3.30 (1.400)	3.08[2] (1.43)	3.18[2] (1.39)	3.67[1**] (1.36)
Administrator and I agree on all matters related to medical/clinical decisions.	3.45 (1.191)	3.38[2] (1.25)	3.34[2] (1.19)	3.67[1**] (1.13)
Administrator and I work closely on center strategic and long term planning.	3.77 (1.23)	3.76 (1.24)	3.59[2] (1.26)	4.01[1*] (1.17)
Administrator is responsive medical director needs.	3.74 (1.24)	3.66 (1.34)	3.63 (1.23)	3.99 (1.10)
Administrator and I have a strong working relationship.	3.90 (1.21)	3.87 (1.29)	3.83 (1.21)	4.06 (1.13)
Medical director should be hired directly by the board of directors.	2.82 (1.34)	2.99 (1.31)	2.68 (1.345)	2.73 (1.36)
Medical director should report directly to the board of directors.	3.04 (1.34)	3.22 (1.31)	2.99 (1.36)	2.87 (1.34)
Have input to board on financial, personnel, and other policy matters related to med./clinical decisions.	3.39 (1.32)	3.20[2] (1.34)	3.37 (1.326)	3.62[1**] (1.27)
Board of directors is responsive to my needs as medical director.	3.47 (1.18)	3.38 (1.23)	3.43 (1.20)	3.60 (1.13)
Overall, board of directors and I have a strong working relationship.	3.39 (1.27)	3.34 (1.26)	3.31 (1.29)	3.55 (1.28)

5-point Likert Scale: 1 = Strongly Disagree, 2 = Somewhat Disagree, 3 = Neutral, 4 = Somewhat Agree, 5 = Strongly Agree
Significance of differences between groups at: *p<0.05 level, **p<0.01
[1, 2, 3] Scheffe' Rank between groups at 0.05 level of comparison.
N = 385-389N = 385-389