

The Roles Local Health Departments Play in the Organization and Provision of Perinatal Services

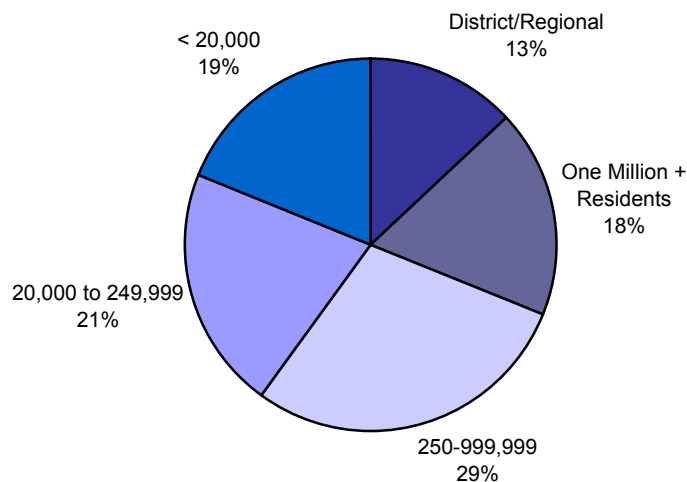
Public health efforts to reduce maternal complications and poor pregnancy outcomes encompass a wide array of approaches, including close attention to the system of perinatal health care, particularly its organization and financing. Historically, strategies to regionalize or coordinate the system of perinatal care services were developed to improve perinatal outcomes while maximizing the efficient and effective use of scarce resources. Many elements are encompassed in a coordinated system of care, including clinical services, system connections, payment for perinatal services, mechanisms to fund the infrastructure, provider education, and structures and processes for program accountability.

Other public health efforts to improve maternal and newborn outcomes include provision of population-based services such as health education and promotion for pregnant women – particularly for low-income women. Public health agencies also may emphasize expanding access to services as well as enhancing the content of care for low-income women and their newborns, especially Medicaid beneficiaries. Additional efforts focus on the prenatal assessment of medical as well as psychosocial risk and on assuring appropriate referrals and care in the context of a well-organized continuum of services ranging from basic to subspecialty care for both pregnant women and infants.

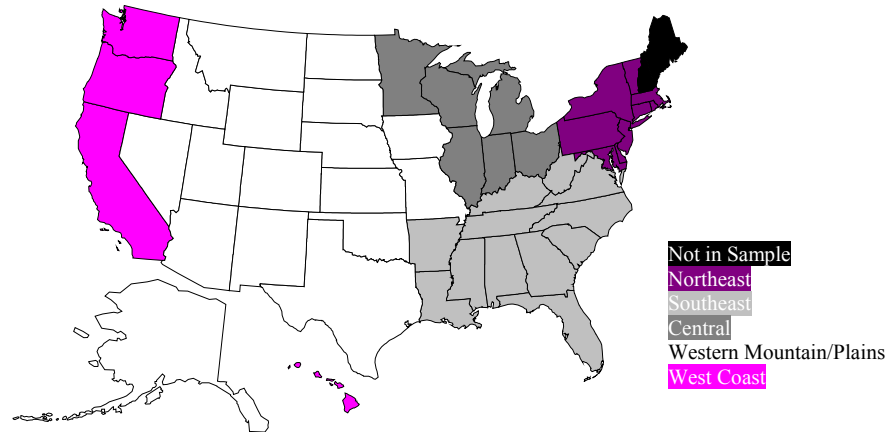
The purpose of this brief is to describe the features and components of perinatal health systems in local communities, and, more specifically, the roles local health departments (LHDs) play in assuring these components for pregnant women and newborns. The information presented here is based on data obtained as part of a larger effort examining fetal and infant mortality review (FIMR) programs in the context of other perinatal systems efforts nationwide. The methods textbox below provides details about the data that form the basis of this brief. Our findings describe five essential public health functions for pregnant women and infants, including: *promoting access to or provision of services to clients, promoting collaborations and partnerships, policy formation, ensuring the capacity and competency of the perinatal health workforce, and informing and educating the public*. Moreover, many of the components of a perinatal health services system mentioned were assessed, along with specific questions about collaborations among agencies in local communities. Information regarding LHD activities related to other public health functions on quality assurance and accountability are included in a separate publication. While other perinatal health-related organizations or initiatives in communities may be implementing some of the functions or services discussed herein, this brief solely describes reported LHD activities.

Characteristics of Participating Communities

Population Density. Communities in this study were defined as the smallest geographic unit at which the local health department operated. For 87 percent of the LHDs, this geographic area was the county or metropolitan area; for the remaining 13 percent, it was the district or region composed of multiple counties for which population size was not identified. Almost 30 percent of the communities had a population of 250,000-999,999.



Geographic Area. The classification of geographic areas listed below differs from the one used to draw the sample; the original “West” region was redistributed so that several Plains states were combined with the Western Mountain states to form one region, and the states on the coast another. The five groupings were believed to be more reflective of the differences in orientation of health departments and health services systems than the original four regions used to draw the sample.



Communities in the Southeast were the most heavily represented in our study, constituting close to one third of the sample. One-fifth of the communities were located in the Northeast, and another 20% in the Western Mountain/Plains states. Less than one-fifth were located in either the Central or West Coast areas of the country.

Hospital Environment. Over ninety percent (94%) of the sample communities had a least one hospital providing maternity or newborn care. Close to forty percent (37%) had 4 or more hospitals in the community. Over 60 percent (63%) of LHD respondents reported that there were state guidelines for designation of levels of care in hospitals, of which 79 percent were formal. Twenty percent of respondents did not know if state guidelines existed, while 16.5 percent reported no guidelines. One third of respondents reported no Level I (community) hospital, 51 percent no Level II (specialty), 58 percent no Level III (subspecialty), and 63 percent no Level IV (regional medical center) hospital in their community.

Methods The FIMR evaluation was designed as a cross-sectional observational study. Geographic units were sampled based on the presence or absence of a FIMR or other perinatal systems initiative (PI), geographic area of the country, and population density. To draw the sample of about 200 communities, U.S. counties and metropolitan areas were divided into four types of communities using data collected from a survey of state and metropolitan MCH program directors, and information from the National FIMR program on active FIMRs. They were: 1) communities with a FIMR and another PI; 2) communities with a FIMR only; 3) communities with a PI only; 4) communities with neither a FIMR nor a PI. In addition to the four types of communities (FIMR only, PI only, both, neither), other factors considered in sample selection were: geographic region (East, Midwest, South, West); state representation (at least one community was selected from each state in the U.S.); metropolitan areas versus counties and population density (for counties only).

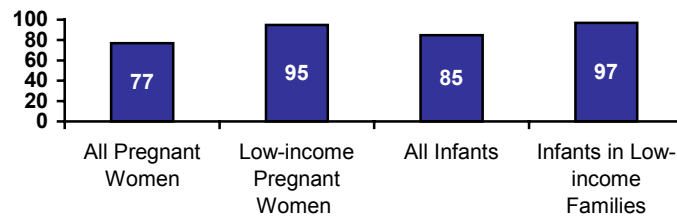
For each community, a representative of the LHD was contacted to participate in a telephone interview; interviews were completed with LHD personnel in 76 percent (N=193) of eligible sample communities. The LHD interview included questions about MCH functions, community interaction, structure and organization of the LHD, and the structure and organization of perinatal services in the community. The timeframe for these questions was 1996-1999. Most questions were asked about 3 populations: pregnant women, infants and non-pregnant women of reproductive age. Many of the questions posed for this specific project were included in the survey as background to measure the context of communities in which FIMR programs were implemented.

Provision, Coordination, and/or Assurance of Access to Services

Most LHD respondents reported that their agency directly provided or contracted for services for pregnant women and infants; at least 95% provided services to low-income pregnant women or infants, 77% to all pregnant women and 85% to infants, regardless of their economic status.¹

Of the five service categories included in our survey, the provision of health promotion and education services was most often reported by LHDs, while medical services were least frequently reported to be provided. A significantly greater percentage of LHD respondents reported providing services to low-income pregnant women and infants than to all pregnant women and infants, regardless of income. The percentage of LHDs reporting provision of services was similar for low-income pregnant women and for infants from low-income families. On the other hand, a greater percentage of LHD respondents reported providing each type of service for all infants (regardless of income), than for all pregnant women, and an even greater percentage reported providing services for infants with special health care needs. The latter differences were statistically significant for each type of service, while the difference for all infants compared to all pregnant women was significant only for medical services.

LHDs Directly Providing or Contracting for Services



Types of Services LHDs Report Contracting For or Providing

	Pregnant Women (%)		Infants (%)		
	Low-Income	All	Low-Income	All	Infants With Special Needs
Health promotion/education	93	67	93	77	82
Nutritional education	92	59	92	66	83
Psychosocial services	81	52	80	60	72
Case management	81	55	82	61	78
Medical Services	68	49	77	63	69

For pregnant women, 38% of LHDs contracted with private providers for wrap-around² services, while 33% did so for infants. One third of LHDs participated with other agencies in conducting a clinic for high-risk pregnant women. About 80% of LHD respondents reported that their agency provides psychosocial services for low-income infants and pregnant women. Seventy-one percent of LHDs provided bereavement services to mothers or parents of infants who died, beyond those offered by the FIMR/IMR in their community; 62% of LHDs without a FIMR/IMR in their community provided such services.

There was some variation in the provision of services across regions of the country. LHD respondents in the Southeast (89%) reported the highest percentage of provision of medical services for low-income pregnant women and infants alike. A greater percentage of LHDs in the Southeast (93%) and West Coast (89%) states also reported providing case management services for low-income pregnant women than LHDs in the Northeast (67%) or Central (69%) region. The highest percentage of LHDs reporting conducting high-risk clinics for pregnant women was among Southeastern communities (41%), while the lowest percentages were found among Western Mountain/Plains (24%) and Northeast (23%) communities. Similar variations also were noted between Southeastern (52%) and Western Mountain/Plains states (24%) for LHDs contracting with private providers for wrap-around services. LHDs in Western Mountain/Plains communities (68% for women and 66% for infants) were also less likely than LHDs in other areas (83% for women as well as for infants) of the country to provide psychosocial services for low-income pregnant women and infants.

While LHDs appear to be less involved in providing medical services, they must assure that the populations in their catchment areas have access to these services by coordinating their efforts with private-sector service providers. About two-thirds of LHDs initiated efforts to increase private provider involvement in delivering services to uninsured or

¹ While our philosophical viewpoint usually would not divide women's health issues by presence or absence of pregnancy, this methodology is the most feasible for the presentation of the wide scope and volume of the collected data.

² In this survey, wrap-around services were defined as outreach, case management, psychosocial or nutritional services.

publicly insured pregnant women (64%), and about half did so for infants (51%). Their efforts included securing private physicians to provide backup care for public clinics (44%), and using incentives to increase the number of physicians accepting Medicaid clients (25%). Efforts to increase provision of care by private providers for uninsured or publicly insured pregnant women were more frequently reported by LHD respondents in West Coast states than elsewhere in the country.

Another mechanism for assuring and coordinating care among providers in the community is facilitating contracts between public and private providers. Forty-one percent of LHDs reported facilitating such contracts related to pregnant women, and 36 percent for infants. LHDs in the Northeast (54%) reported the highest activity with respect to facilitating public-private contracts for infants, while those in the Western Mountain/Plains states, the lowest (18%).

Engaging Women in Perinatal Care

LHDs engage in several outreach activities to involve the women living in their communities in obtaining prenatal care. As shown below, most LHDs (95%) reported supporting or offering specified outreach activities to enroll and maintain pregnant women in prenatal care. LHD respondents in the Southeast more frequently reported mailing appointment reminders to pregnant women and following up on missed appointments than LHDs in other areas of the country. This finding is consistent with the high percentages of LHDs in the Southeast that report providing medical services and case management to low-income pregnant women.

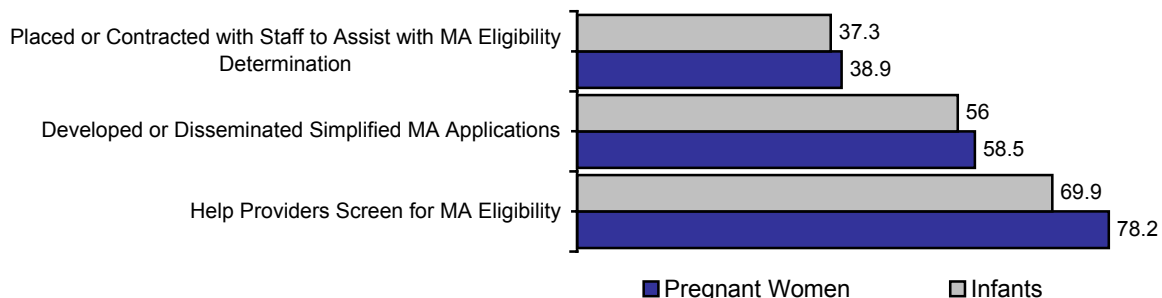
Percent of LHDs that Report Providing a Specific Outreach Service

Outreach Activity	LHDs (%)
Networked with other community agencies	91
Designated outreach workers to conduct home visits with pregnant women	86
Contacted pregnant women for missed appointments	76
Operated a walk-in or phone information and referral service	73
Reminded pregnant women of appointments by mail	72
Conducted public awareness or media campaigns	72
Reminded pregnant women for appointments by telephone	68
Disseminated a directory of prenatal services	67
Reminded pregnant women of appointments by mail	56
Provided/arranged for transportation services for pregnant women	55

Increasing Enrollment in Medicaid and Other Public Programs

Nearly 80 percent of LHDs undertook specific activities to enhance the ability of providers to screen for eligibility for Medicaid or other public services for pregnant women and infants. Over half collaboratively developed or disseminated simplified application forms for social services programs, while over one third placed or contracted for staff at hospitals, clinics, or other family service program enrollment sites to determine Medicaid eligibility. LHDs in communities with populations of over 1 million were most likely to report placing staff at health facilities while those in the least populated communities were least likely to do so.

LHD Reported Activities to Facilitate Enrollment into State-funded Insurance Programs



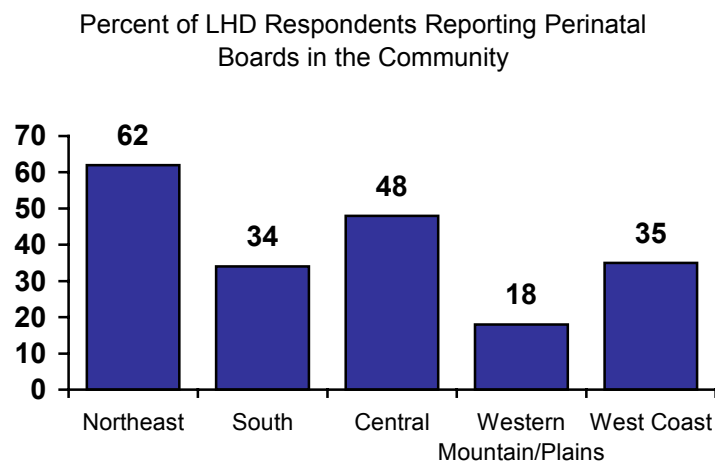
Systemic Coordination of Services

The use of common risk assessment instruments is a mechanism to assure quality of care and to facilitate coordination of services across LHDs and other community providers and agencies. Sixty-nine percent of LHDs worked with other agencies or projects in their community to use a common risk assessment instrument for pregnant women, and 53% used a common risk assessment instrument for newborns. Fewer respondents reported that their agencies used a common prenatal record (38%) or a common newborn record (20%). Fewer than 20% of LHDs reported transferring prenatal or newborn records electronically.

A mechanism available for coordinating services across agencies is use of tracking systems. These systems can be used for a number of follow-up procedures: 64% of LHDs reported tracking women's postpartum visits; 54% reported follow-up on referrals or transports of high risk pregnant women; 36% reported follow-up on transport of high-risk newborns; 67% reported follow up on high-risk infants after they were discharged from the hospital; and 47% implemented tracking systems to determine whether normal newborns had a well-baby visit in the first month of life.

Coalitions, Perinatal Boards, Influential Groups, and Perinatal Coordinators

LHDs reported a variety of strategies for advocating for the health needs of pregnant women and infants. Over three-quarters of the LHDs reported participating in health-related coalitions for pregnant women (77%) and infants (76%), and about three-quarters reported participating in or collaborating with initiatives or programs undertaken by other public or private groups in the community for pregnant women (73%) and infants (79%). Thirty-nine percent of LHDs reported that there was a perinatal advisory board or committee in their community, and 57% reported an influential group(s) or individual as well.³ Most interestingly, while about 35% of LHDs reported that there was a perinatal coordinator⁴ in their community, a coordinator was more likely to be present if there was an influential group (38%) or perinatal board (52%).



Perinatal boards were most frequently reported in LHDs in the Northeast (62%), followed by the Central states (48%), and least commonly reported in LHDs in the Western Mountain/Plains states. Perinatal coordinators, on the other hand, were most likely to be reported by LHDs in West Coast states (58%). Respondents in LHDs in the Northeast were the most likely (90%) to report participating in or collaborating with initiatives or programs undertaken by other public or private agencies in the community for pregnant women. Respondents in LHDs in areas with populations less than 20,000 reported less involvement in these activities for pregnant women (46%) and infants (60%) alike.

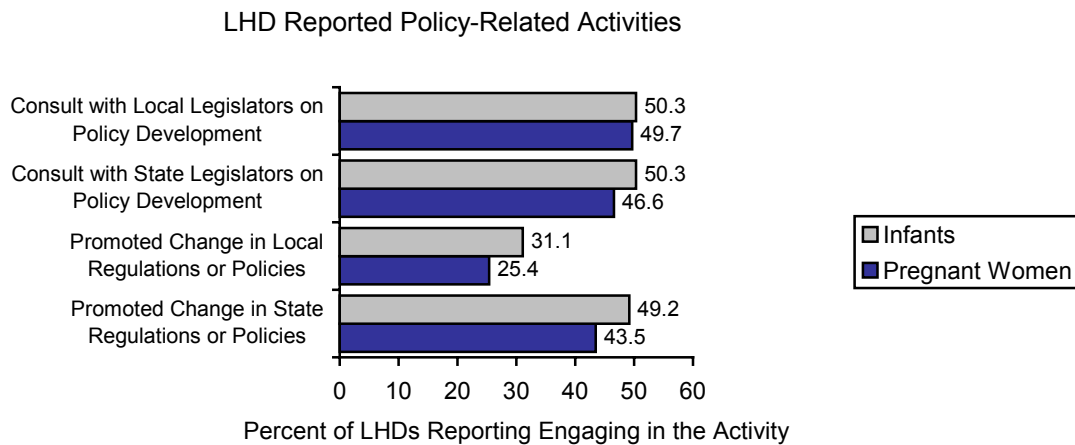
Influencing Perinatal Health Policy

LHDs use many different approaches to influence policy in their communities. While less than one-third of LHDs reported promoting changes in local regulations or policies for pregnant women (25%) and infants (31%), closer to half reported promoting changes in state regulations or policies. Many LHDs reported providing their expertise to local legislative bodies for the development of policies or programs related to the health of pregnant women (50%) and infants (50%).

³ In the questionnaire, respondents were asked to identify agencies, groups or individuals who provided leadership or strongly influenced the perinatal health system in their community.

⁴ In the questionnaire, a perinatal coordinator was defined as a person who facilitates linkages and networking among providers and facilities that provide perinatal care.

LHDs in the least populated communities were least likely to promote local or state regulations for pregnant women or infants or to report providing expertise to local or state legislative bodies. Agencies in Central and West Coast states reported the highest frequency of promoting changes in state regulations or policies for pregnant women. The highest percentage of LHDs providing expertise to the local legislature about the health of pregnant women and infants was found in the West Coast states, and the lowest in the Southeast.



Improving Workforce Capacity and Competency

LHDs described a variety of activities to improve the capacity and competency of the perinatal workforce. A majority of respondents reported that their LHD undertook or participated in activities to advance the education of providers about health care for pregnant women (57%) and for infants (64%). Forty-six percent of LHDs surveyed indicated their agencies had convened meetings of local medical and family service providers to enhance the identification of high-risk pregnant women and infants.

Educating the Public

LHDs routinely engage in activities to inform and educate the public and families about maternal and child health issues. Over three-quarters of LHDs surveyed reported providing materials or news releases to local newspapers, radio or TV stations concerning the health needs of pregnant women (77%) and infants (84%). Over eighty percent reported engaging in educational or informational activities directed at local consumers about health promotion or education resources for pregnant women (83%) and infants (81%). LHDs in the Southeast were the least likely to report providing news releases about pregnant women or infants.

Involvement with Managed Care Organizations

As the penetration of managed care organizations (MCOs) has increased across the United States, questions have been raised about the extent of involvement of these organizations in perinatal health services and systems and their possible effects. As a result, several questions were included in the interviews with local health department respondents about the presence of MCOs in their communities, whether or not they contracted with these organizations for the care of pregnant women and infants, and whether or not they were involved in developing guidelines for care and monitoring of MCOs.

Sixty-one percent (114 of the 188 reporting information about MCOs) of the local health department respondents indicated that there were MCOs in their community that contracted with or organized perinatal health services or with which they contracted for these services. More highly populated areas, those with at least 250,000 in population, had the highest MCO penetration (73%), while the least populated communities, those with less than 20,000 in population, had the lowest (37%).

Among the 114 LHD respondents reporting some MCO activity in their area, about half stated that they contracted with one or more MCOs for services for pregnant women, and a slightly higher percentage for infants. A higher percentage of LHDs in Central states (74%) reported contracting for MCO services for pregnant women than respondents in other areas of the country (44%). The differences were not significant for infants.

When asked about MCO guidelines and obtaining data to monitor MCOs, 19 LHD respondents reported some activity in addition to the 114 described above. Thus, the denominator for development of guidelines for MCOs and use of data was 133 LHDs. Over half of these 133 LHD respondents (54%) reported that the local health department or another agency in the community developed guidelines or requirements for MCOs related to care for pregnant women enrolled in Medicaid and 23 percent for all pregnant women. The respective percentages for infants were 52 and 21 percent. Development of guidelines for Medicaid-enrolled pregnant women was most frequently reported by LHD respondents in West Coast (77%) and Central (71%) states. The respective percentages for infants were 69 and 71%. For all pregnant women and infants alike, LHD respondents in Western Mountain/Plains states reported little activity related to guidelines; only 4 percent reported activities for pregnant women and none for infants. Consistent with the more rural nature of these states, LHDs in the least populated communities reported the lowest percentage of guideline development for all pregnant women (0%) and infants (14%).

Twenty-six percent of LHD respondents within communities having some type of managed care activity reported that the LHD or another agency in the community developed guidelines for MCOs concerning contracts with tertiary or subspecialty centers for high-risk maternal and newborn care. Within communities where some type of managed care activity was reported, the development of guidelines concerning contracts with public health agencies for psychosocial services for pregnant or parenting women were reported by 35 percent of LHD respondents and guidelines that included mechanisms for maintaining a stable network of perinatal providers by 30 percent of LHD respondents. Approximately 54 percent of LHDs in Central states reported the development of guidelines for contracts for psychosocial services. While there was no geographic variation in developing guidelines for contracts with subspecialty centers, LHDs in West Coast states were more likely to report the guideline development in the latter two aspects and Western Mountain/Plains states were the least likely.

The percentage of LHDs reporting using data to monitor MCOs was not high; it was only 26 percent for monitoring by the LHD, with an additional 35 percent reporting monitoring by another agency. Slightly over one-third (36%) of LHD respondents reported that data were used to monitor the penetration of MCOs in their communities. About one-third of the respondents also reported that data were used to monitor care for pregnant women (34%) and infants (34%) in MCOs and 31 percent reported monitoring health status for the two groups. Regardless of which agency obtained data, LHDs in Northeastern states (53%) reported the highest frequency of use of data to monitor the health care of pregnant women and infants in MCOs, and Western Mountain/Plains states, the lowest (13%). LHDs in areas with less than 20,000 population (7%) also had low rates of use of data to monitor care for pregnant women and infants in MCOs.

Summary

The findings of our survey of MCH professionals in 193 LHDs in counties and metropolitan areas across the country indicate a significant amount of activity with regard to providing or assuring access to health care for pregnant women and infants, especially in families with low incomes. Significant activity also was noted for health education and promotion and supporting and offering outreach activities to enroll and maintain pregnant women in care. LHD respondents also frequently reported collaboration with other initiatives or programs undertaken by other public and private providers in the community.

Fewer LHD respondents reported engaging in activities that help to coordinate health care providers and facilities for pregnant women and infants. Although more than half of LHD respondents reported using a common risk assessment instrument for high-risk mothers and newborns, common medical records and electronic transfer of these records was much less frequently reported. The use of tracking systems to follow-up pregnant women and infants was quite variable across LHDs. Tracking systems were more frequently reported to be used for follow-up on postpartum visits for women and for high-risk infants after hospital discharge than for high-risk infants who were transferred or for follow up of routine well baby visits.

Involvement in policy formation related to perinatal health was reported by half or less of the LHDs respondents. Less than half reported perinatal advisory boards or committees in the community, although over half reported some influential group in the community involved in perinatal health concerns.

Geographic variation was noted with regard to several MCH functions. Respondents from LHDs in the Southeast reported the most activity surrounding provision of care to pregnant women and newborns, while they reported less activity related to the MCH functions involving policy formation and using the media to educate the public about perinatal health concerns. LHDs located in Western Mountain/Plains states were less likely to report involvement in MCH activities related to provision of services and facilitating access to private providers for pregnant women. Not surprisingly, LHDs in the least populated communities were often the least likely to participate in a number of activities related to the MCH functions.

The level of activity in LHDs related to the MCH functions is likely over-estimated in our sample. First, the sampling design in which two-thirds of the communities were selected because of the presence of a FIMR or other perinatal systems initiative (PI) resulted in a sample with considerable MCH activity; the results of the FIMR evaluation indicated that LHDs in communities with a FIMR or PI were more likely to engage in a number of MCH functions than LHDs with neither program. Second, the sample also was under-represented by LHDs in less populated areas; these LHDs were less likely to report engaging in a number of MCH public functions than those in more populous areas. Another limitation of our sample is that two states are not represented because we were unable to solicit the participation of LHDs in either.

Concerns have surfaced that as MCOs become increasingly responsible for providing care for low-income women, they may not be able to provide the same level of services and referrals while maintaining cost savings. Only one-third of LHDs in our sample reported that they had developed guidelines for MCOs or required them to have contracts with public health agencies for psychosocial services for pregnant and parenting women. On the other hand, about one-half of LHD respondents in communities with some MCO activity reported that they contracted with one or more MCOs for services for pregnant women or infants.

Our study findings suggest substantial activities among LHDs with regard to the five public health functions related to promoting access to or provision of services to clients, promoting collaborations and partnerships, policy formation, ensuring the capacity and competency of the perinatal health workforce, and informing and educating the public for all pregnant women and infants, especially for low-income populations. They also indicate variation across communities in the provision of selected perinatal services and contracting with the private sector for these services. These findings are a stimulus to more fully examine the overall perinatal health care system in local communities. It is important to determine whether or not the reported low level of activity related to some MCH functions results from other organizations taking responsibility for the activity or whether it reflects gaps in the perinatal health care system that need to be addressed.



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The Roles Local Health Departments Undertake in Serving Non-Pregnant Women of Reproductive Age

Under Title V of the Social Security Act, Maternal and Child Health populations traditionally included pregnant women and their infants. However, in recent years the definition of MCH has been expanding in recognition of the importance of the health of women in their own right, as well as the importance of women's preconceptional and interconceptional health with regard to the health of any children they might bear.

To this end, many LHDs throughout the United States are continuing, expanding, and/or initiating including non-pregnant women of reproductive age as part of the MCH population they serve. Data that illustrate what LHDs were doing for nonpregnant women of reproductive age can be found in the separate, accompanying publication.