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WORKSHOP IN HEALTH ADMINISTRATION STUDIES

SPRING, 1990

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"Obstetric Emergency Room Walk-ins: A System in Dysfunction"

for

Thursday, May 17, 1990

Rosenwald 405

3:30 - 5:00 p.m.

Title: **Unregistered Obstetric Emergency Walk-In Patients: Descriptive Tracer Measures of Service Gaps to a High Risk Population**

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DRAFT: This paper is in preliminary form and does not include complete footnotes nor statistical tests.

Thanks to Drs. Shari Levitsky and Alvin Hal Strelnick for their unique contributions to this work.

OBSTETRIC EMERGENCY WALK-INS

INTRODUCTION

Prenatal care correlates well with the prevention of poor pregnancy outcome. We often cannot explain why a mother who enters a prenatal health care system early in pregnancy appears to have improved pregnancy and newborn outcome, compared with a similar mother who receives little or no prenatal care.[1] Coordination of prenatal care and delivery services is thought to be essential to achieving optimal outcomes for pregnant women.

For renewal of FY 1989 continuation grants, all perinatal centers in the State of Illinois were mandated to undertake a needs assessment of their primary service area. As part of this assessment, the University of Chicago/Michael Reese Hospital Perinatal Center chose to document the relationship between the incidence of obstetric emergency walk-ins and perinatal outcome. This was thought to be an indicator of system function which would measure access to, continuity, and quality of prenatal care.

There was a specific interest in exploring the chaacteristics of women who were walk-ins to network hospitals because of practical and immediate medical and management concerns:

(1) Admission of unregistered patients to labor and delivery suites lead to overcrowding and an inability of hospitals to project space and staffing requirements.

(2) Walk-in or unregistered patients were perceived to be more high risk than the planned admission.

(3) Emergency entry was thought to be more costly from a social and economic perspective. For example, laboratory tests which could have been performed by a prenatal care provider on a routine basis may need to be performed stat at increased cost and with utilization of more resources of the admitting institution. Furthermore, emergency labor and delivery patients represent an unpredictable factor in projecting and managing patient payor mix.

Furthermore, as a system indicator the "OB walk-in" measure, if useful, could assist in documenting specific, local discontinuity between the prenatal care system and the hospital system in a major metropolitan area. The focus of the study was

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[1] Public Health Service Expert Panel on the Content of Prenatal Care. Caring for our Future: The Content of Prenatal Care. Washington, D.C.: Public Health Service, Department of Health and Human Services, 1989:i.

to device local interventions directed to specific hospitals, prenatal care providers or specific communities perhaps enabling local policy initiatives to ameliorate what was perceived to be an increasing problem.

METHODS

The University of Chicago/ Michael Reese Perinatal Network is a system of 14 community hospitals, mostly Level 2 designated, serviced by the University of Chicago Hospitals and Michael Reese Hospital and Medical Center (both designated as high risk, tertiary (Level 3) hospitals). The Centers offer consultation, referral/transport, professional education and overall surveillance of perinatal outcomes for mothers and infants born in member institutions. This network is comprised of hospitals on the far southside of Chicago, two south suburban hospitals and two hospitals in Kankakee County. Although very different in geography and organization of health services, each of these areas has access to care problems, high concentrations of poor, minority families and are targets of State of Illinois and City of Chicago special initiatives to reduce infant mortality. The Network also serves a mix of middle class to affluent black and white families.

The UC/MR Network embarked on a one month pilot of this study in the fall and winter of 1987/88 and a more formal three month survey October- December 1988, the results of which are presented in this paper.

A one page survey instrument captured 323 cases in a three month period in 12 network hospials (10 Level 2 and 2 Level 3 institutions). The label "walk-in or unregistered" describes pregnant woman unknown to a hospital or its physician staff, who had no prior arrangements for delivery of their infant at this hospital who present in labor (or with a pregnancy related complication) to the emergency room or labor and delivery suites. Nursing staff in Labor and Delivery units interviewed patients who fell into this category. The interview included demographic data, maternal perinatal history, complications and infant outcome data obtained on admission or abstracted from the chart and specific self reported data from the patient (see Table 1). This study also began at the same time that drug use, principally the use of cocaine and crack, was increasing dramatically; therefore, questions on substance abuse and its link to prenatal care and Ob walk-in problems were particularly of interest.

Two sources of data were used for analysis: the survey data itself and secondly, delivery case records for all women delivering in network hospitals during the time of the study. The first analysis presented below involves a comparison between OB walk-ins identified in the survey with women who had preregistered and received prenatal care in the Network system. OB walk-ins surveyed were linked to their delivery and outcome data collected at the time of delivery as part of a Universal Data Base system functional in the Network. In this system, extensive data is collected at the time of delivery on prenatal care history, antepartum and intrapartum complications, delivery procedures, obstetric and neonatal outcome. Linking of the OB walk-in and DCR data was accomplished by querying the DCR database (maintained in ORACLE) for each OB walk-in (maintained in a dBASE III database). Those walk-ins that were found in the DCR database had their records updated with the medical record number from the DCR. Both datasets were then imported into SAS and a combined SAS dataset was created by merging on the medical record number. Only 248 of the original 323 cases could be matched to a delivery record: two network hospitals did not use DCRs thus losing 28 cases from this first analysis and 47 women interviewed did not deliver subsequent to this admission (pregnant but not in labor).

The second data source was the actual survey data analyzed statistically to describe characteristics of the walk-in group as a whole and its subgroups (i.e. subgroups by age, geography, birthweight, prenatal care and substance use status.) Results and discussion on two specific areas: prenatal care patterns and substance use patterns follow.

RESULTS

During the study period, 4854 babies were born in hospitals reporting into the Universal Data Base System. In this period, a total of 362 women delivered who were unregistered (248 of whom were surveyed) and 4492 women delivered who were registered for delivery from an affiliated clinic or physician practice. These figures indicate that approximately 7.5% of all births in reporting Network hospitals were from OB emergency walk-ins.

We compared the 114 unsurveyed, unregistered births with those surveyed (N=248) and could find no significant statistical difference between them, so all the comparisons that follow assume the survey sample to be representative of unregistered deliveries.

In Table 2 demographic characteristics for registered and walk-in patients are presented, showing a disproportionately large percentage of black (92.2% vs. 62.7%, X2= ,p=), teenage (31.0% vs. 18.3%, X2= ,p=), and multiparous (gravida greater than four) women among the OB walk-in patients. To control for the effect of race, we have also presented the same comparisons for black patients, where there was no statistical difference in age distribution for walk ins vs registered patients, but the effect of multiparity persisted (38.8% vs. 25.2%, X2= ,p=). Among all races unregistered patients had a dramatically higher rate of receiving no prenatal care (36.7% vs. 0.6%. X2= ,p=). Even though 63% of the walk-in population reported receiving some prenatal care, utilizing the Kessner formula based on late entry into care, number of visits and gestational age at birth, only 7% of this population was found to have received adequate care.[2] An analysis comparing the unregistered walk-in patients who had received prenatal care with those who did not found no significant difference between the two groups on demographic, payor source, substance use, or site of care. However, there is suggestive data to indicate that women with gravida >4 receive less prenatal care. There was little difference in place of delivery of the walk-in population from the registered population as measured by percent of deliveries at suburban hospitals (32.7% for the walk-in population and 36.3 for the registered population).

In Table 3 the marked difference of the payor source for unregistered walk-in patients in the study is demonstrated. Compared to all those registered for delivery, the walk-in patients were more likely to be self-pay (10.5% vs. 2.4%) or Medicaid (58.5% vs. 34.7%) and less likely to have commercial insurance (5.7% vs. 27.9%) and HMO coverage (5.2% vs. 18.2%). Walk-in women without prenatal care are less likely to be covered by insurance or Medicaid; only 66.7% of these women reported having insurance compared to 75.9% of unregistered women who reported some prenatal care. Financial barriers, important to access to prenatal care, appear equally important in the patient's linkage to the hospital labor and delivery system.[3]

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[2] Kessner, D.M., et al. "Infant Death: An Analysis by Maternal Risk and Health Care." Washington, D.C.: Institute of Medicine, National Academy of Science, 1973, 59.

[3]

In Table 4 maternal complications for registered and walk-in patients are compared with significant differences noted for self reported drug use (15.3% vs. 0.2%) and premature rupture of membranes (PROM) (8.0% vs. 4.4%). There is also a trend toward more labor and delivery complications (37.1% vs. 26.9%).

By all measures examined in Table 5, the walk-in population had poorer outcomes than the registered population. The proportion of one minute Apgar Scores that were between 0 and 3 was 3.8% for the walk-in population compared to 1.9% for the registered population and for five minute Apgars between 0 and 7, 4.2% and 3.5%, respectively. The difference in one minute Apgar Scores was statistically significant at the p=.051 level (X2= 3.8) Fetal Death rates were over four times greater for the walk-in population compared to the registered population (32.3 vs. 7.6 per 1000). Although there were only 8 fetal deaths in the walk-in population, this comparison is significant at p <.0001 (x2=16.3). The walk-in population accounts overall for only about 7.5% of Network deliveries but almost 20% of all fetal deaths. Despite a small number of fetal deaths, this generally higher risk status for walk-ins is part of a consistent trend in a review of other outcome variables.

The walk-in population demonstrates 4.2% very low birthweight and 25% low birthweight compared to 2.2% and 11.2% for the registered population, respectively. The walk-in population has a high rate of premature onset of labor (< 37 weeks gestation), (31.7% vs. 18.1%). These factors are consistently twice as prevalent among the walk-in group as among registered patients.

Admissions to the intensive care nurseries of Level 3 hospitals (ICN) and the special care nurseries of Level 2 hospitals (SCN) also were higher for the walk-in population than the registered population even though not at statistically significant levels. 5.3% of babies born to walk-in mothers went to the ICN vs. 3.7% for registered mothers (x = 1.4p= 231); 8.8% went to special care nurseries vs. 6.4% for the registered population (x =1.9 p=.613). These differences become more pronounced when comparing registered vs unregistered black women.

In comparing the birth outcomes of the walk-in patients who had received some prenatal care with those with no prenatal care, the positive effect of prenatal care persists. Unregistered women without prenatal care, although no more high risk by virtue of age, gravida or drug use, have worse outcomes. They present with more prematurity as reported by gestational age (32.3% vs

28.2% less than 37 weeks) and higher rates of low birthweight babies (30.6% vs. 19.4%), very low birthweight babies (11.2% vs. 3.6%), and other adverse outcomes (12.8% vs. 15.2%).

A large number of women in our sample of unregistered walk-in patients use public health facilities; this figure reaches almost 50% in suburban Cook County. (See Table 6.) For several city hospitals, the percentage of walk-ins who use Chicago Department of Health (CDOH) facilities also ranges as high as 47-53%. The perceived problem of storefront clinics with little or no relationship to accepted maternity and infant care services did not prove to be a major source of walk-in patients in this specific study; rather, if they had prenatal care at all, women came from traditional providers of prenatal care as suggested in other reports.[4]

The percentage of patients with five or more prenatal visits reported by site of care is also included in Table 6. Although such data is noted to be unreliable with significant recall bias, very distinct frequency patterns by type of prenatal care provider emerged. When women reported being seen in city public health clinics, those of suburban Cook County's public health department, or free standing community clinics, associated with Oak Forest Hospital (a Cook County public hospital in the southern suburbs), they reported much higher frequency of visits, an ostensibly more complete regimen of care, suggesting that delivering unregistered may not simply be the consequence of non-compliance. In fact, 80.4% of the women walking into hospitals in suburban Cook County have had some prenatal care, 48.7% of them having been seen in public sector prenatal programs. Visit frequency for these women is generally high, representing an appropriate complement of prenatal care services. Overall, the suburban walk-in population is generally better off sociodemographically than their counterparts in the city and have better birth outcomes (15.4% lowbirthweight vs 22.8% in the City of Chicago).

In contrast to women using the public sector, women who report being seen in private physician offices or private clinics report the fewest visits. These women may be the least motivated of the OB walk-in group and drop out of care or it may reflect altered standards of care among those private prenatal providers who do not deliver their own patients.

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[4] (DHHS-IDPH Perinatal Consultation Team Report-1985)

For the approximately 30% of unregistered women who reported receiving no prenatal care, the survey picked up preliminary data on the reasons reported for not receiving service. The most frequent responses can be found in Table 7. Other responses mentioned by only one or two respondents included being refused care in an HMO, "my mother took care of me, she's a nurse," "had care with previous pregnancy," and "didn't need it." As in other studies, financial barriers lead among the reasons for not receiving care.[5] That the majority of respondents gave no particular reason is a weakness in the design in the initial survey instrument.

Hospitals participating in this survey were especially interested in the perceived rise in rates of perinatal substance abuse. Therefore, specific questions attempted to elicit use patterns and their relationship to population, provider or outcome characteristics. The survey questionned use of caffiene, tobacco, prescription and over the counter drugs, alcohol, marijuana, cocaine, and heroin. Other substances reported included amphetamines and phencyclidine (PCP). The surveyors, however, concentrated on the use of tobacco, alcohol, and illicit drugs. Their findings are presented in Table 8. Overall, 150 women of our 323 person sample or 46% reported using tobacco, alcohol, or illicit substances during pregnancy. 78 (or 24%) were poly-drug users and 61 (or 18%) used illicit drugs alone or in combination with alcohol and/or tobacco. 32% of the total sample reported smoking and 20% reported alcohol use. Of the illicit drugs, marijuana and cocaine were the most commonly used. These numbers reflect self-reporting in interviews and may under-represent actual prevalence.

As expected, unregistered substance users had higher risks for adverse birth outcomes than others in the walk-in group. In Table 9 the patterns among our walk-in population between users and non-users were compared. Birthweight was reviewed among the substance use population with the following findings: single or multiple substance users (tobacco, alcohol, and illicit drugs) had a greater rate of low birthweight babies than non-users (28.6% vs. 21.1%). However, for those few women (n=20) using only illicit drugs (not in combination with any other substance), 13 of whom were using cocaine and 3 heroin, birthweight was below 2500 grams in 8 cases (40%). Low birthweight rates for unregistered women using one or more illicit drugs in combination with tobacco and/or alcohol was 27.9% and for those using only

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[5]

tobacco 34.2%. Alcohol use alone was reported in only 13 cases; therefore, the low birthweight rate is not reported here. Substance use was almost identical among those receiving or not receiving prenatal care although substance users differentially use hospitals for prenatal care. Age differences, however, among different groups of substance users yielded clearly distinct patterns. The substances used most frequently in the population under 20 years of age were tobacco (22.9%), alcohol (10.4%), marijuana (6.3%), and cocaine (2.1%). Women from age 20-34 years reported the highest use of all substances: tobacco (35.2%), alcohol (23.0%), cocaine (20.7%), marijuana (16.9%), and heroin (3.8%). Women 35 years and over reported even higher cocaine use (23.1%) and heroin use (15.4%). Clearly, substance users are at the highest risk within the walk-in population.

DISCUSSION

This study has begun the descriptive characterization of a very high risk population for adverse birth outcomes, the unregistered obstetrical emergency walk-in patient. The data presented above underscore the high rates of adverse maternal and infant outcomes <u>with</u> and <u>without</u> prenatal care in a walk-in population. As predicted, this population demonstrates disproportionately high risk demographic and payor source characteristics associated with high risk pregnancies and deliveries. We have learned from this analysis that the OB Walk-in group in the UC/MR Network is primarily black with a bimodal age distribution of teenagers and older multiparous women. They have birth outcomes that are worse by a factor of 2-4X depending on the measure used. In this population 70% is covered by public or private health insurance, almost 1 out of 5 women use illicit drugs, and over 65% have had some prenatal care. Our study cannot, however, discriminate between the contribution of patient characteristics, behaviors and system failures that combine to create this high risk situation of walking into unknown institutions to deliver one's baby. The frequently high prenatal care visit rates for many of the OB walk-in patients indicates that patient disinterest/motivation to seek care, i.e. what is traditionally seen as non-compliance is not the major cause of this phenomenon. Therefore, our discussion will concentrate on those "holes" in the prenatal and perinatal "safety net."

For example, a number of women ancedotally in this first survey reported that they had clear arrangements for delivery which they intended to keep but for the ambulance system. Ambulances uniformly take women to the nearest hospital. While

these findings are quite preliminary, the State and City will have to weigh the advantages of altering regulations which govern ambulances, such as is done for trauma, to dictate that prior delivery arrangements be honored except in specific labor situations which preclude travel beyond the closest institution. A second generation survey currently being conducted by Perinatal Centers statewide will validate the degree to which the ambulance system is disrupting continuity of care.

The unregistered delivery rate furthermore serves as a tracer indicator for the breakdown in perinatal continuity of care - a quality assurance measure. While the Network-wide unregistered walk-in rate was 7.5%, individual hospitals varied as high as 17-20% and this pattern is on the rise in specific institutions. This tracer therefore can pinpoint continuity of care and linkage issues between specific prenatal providers and local hospitals and point to overall local dysfunctions in the way the delivery system is operating. Such an indicator is attractive as it represents a "system function" measure as opposed to many other measures of perinatal outcome that primarily assess the risk of the studied population.

For example, in suburban Cook County, the OB walk-in phenomenon corresponds to a well recognized problem in access to care. Private practitioners generally do not provide prenatal care for uninsured and Medicaid patients. In response to this situation, the public health department of Cook County has developed and expanded a primary care program to compensate for limited access to the private practice system. These ambulatory programs uniformly refer women to Cook County Hospital in Chicago for delivery. The public prenatal care system has not been able to effect linkages with local voluntary hospitals for the transfer of women to these systems antenatally nor for the delivery itself. In light of this, it appears that suburban Cook County women may actively choose to deliver at their nearest voluntary hospital or be brought there by the ambulance system, so their unregistered status more reflects a systems malfunction than an individual compliance issue. The behavior of these women is rationale given the structure of the system.

Likewise, in the city of Chicago the Department of Health, which has long had a program for direct referral to Perinatal Centers for women with high risk pregnancies, also developed a Partnership in Health program to link their normal obstetric patients to specific hospitals for delivery. The program insures women who are not eligible for Medicaid and, therefore, provides an incentive for hospitals to link with a particular Board of

Health clinic. Although not fully executed, (i.e., not every health station has a "partner" hospital,) CDOH either directly with a partner hospital or indirectly by encouraging women to chose a hospital by their 7th month, facilitates continuity for a great majority of the approximately 25,000 women who it serves annually for prenatal care. However, for a small, high risk sub group, it appears that CDOH case management and facilitative efforts are not effective and that not all partnership arrangements are satisfactory or convenient to the patient.

As the financial reimbursement terms of Partnership Agreements are not that favorable for hospitals, many community hospitals have declined participation. Reimbursement terms for outpatient care and antenatal testing are fairly minimal ($15.00 a visit and $30-$50 per procedure). Furthermore, these agreements disallow any additional reimbursement beyond a competitive Medicaid package price for normal delivery and infant care regardless of the nature of the delivery or nursery needs of the child. This creates an institutional financial barrier to continuity. Overall, expanded approaches are needed to private hospitals to bring more hospitals into the system to meet consumer expectations. In addition, expanded case management systems are needed to support the process of linkage itself.

While the current rate of unregistered deliveries in the Network is about 7.5%, some might argue that further reduction of this rate would require disproportionately large resources. No local clusters were found in a zipcode analysis that would respond to targeted community education interventions, so reaching individual patients would require an ecological approach.[6] Systemic interventions, such as enhancing Medicaid payments to private practitioners or financial incentives in the Partnership program, may also prove prohibitively expensive. However, this 7.5% of the deliveries accounted approximately for 10% of the low birthweight babies, and prematures in our Network and 20% of fetal deaths; there are important potential savings in eliminating redundant diagnostic testing and in reducing SCN and ICN admissions by reducing walk-in rates. Walk-in patients are also disproportionately under- or uninsured and, therefore, increase financial liability for hospitals. Since these patients are very high risk, the intensive care and social support costs of adverse birth outcomes become added burdens on the family, state, and ultimately the tax payor.

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[6] Chamberlin, etc.

Since the OB walk-in phenomenon is largely seen as an externality by the receiving hospital (which must deliver the patient already in advanced labor) and the prenatal care system (which has made other delivery arrangements for the patient), systemic intervention must also come from state or local government or the Perinatal Networks themselves. Individuals responsible for maintaining continuity at this interface, i.e., case managers, have been proposed in Chicago Department of Health (and Community Health Center clinics) for each maternity patient to insure that the patient understands her choices and the dangers of not reporting to the hospital on a timely basis and that proper arrangements are made for delivery. (DHHS REPORT 1985). However, further diagnosis of interface problems is required before effective strategies can be introduced.

RECOMMENDATIONS

1) Financial Barriers: Like many other studies, this one also points to the need for a better Medicaid reimbursement climate. Women covered by Medicaid are treated by the private practice system as if uninsured, and this creates large demands on the public system and precludes optimal linkage between the public sector and private institutions for delivery. New approaches for linking prenatal care providers and hospitals require expansion of public insurance, increased levels of reimbursement to hospitals and stronger collaboration between the State and City to tie this expanded reimbursement to initiatives specifically in "partnership-like" programs.

2) Drug Use: Substance abusing women have greater risks, so all providers need to identify the user early and offer more intensive case management and interventions to keep these women in prenatal care and to reduce factors which produce adverse outcomes. Since drug and alcohol treatment programs have limited access for pregnant women, this system must begin to change. Realizing the critical nature of this problem, the State of Illinois, through its infant mortality efforts, is expanding both case management and treatment capability for drug using pregnant women.

3) Community Education: One hope was that this study would find geographic clusters for whom targeted door to door outreach and education campaigns (done in concert with community based infant mortality programs), might have been useful in reducing the incidence of the problem. However, we found from zipcode specific analyses that no particular pocket or pattern of need

emerged. Therefore, an overall regional or citywide media and educational campaign must get across the value of early and consistent prenatal care, stressing the importance of receiving prenatal care linked to delivery services.

4) CDOH: as mentioned above, the CDOH Partnership program needs further study (i.e., system not working vs. patients not being compliant vs. ambulances interfering with linkages made). Perhaps, the City would consider the need to offer clients multiple delivery options; additionally, the City needs to offer different incentives to community hospitals to bring more of them into the Partnership program with the assistance of the State's Public Aid Department. The Illinois Department of Public Aid could increase its revenue base with increased federal dollars and pilot a special program for the uninsured in the Chicago area in collaboration with city clinics, community based health centers and select hospital providers.

5) Suburban Cook County: Create closer to home delivery sites for women using the services of the public prenatal care systems of Cook County through incentives like expanded reimbursement to local hospitals.

6) Hospitals and Clinics: Create better case management and tracking for high risk clients, particularly those lost to follow-up. Women reporting use of hospitals for prenatal care had great variation in reported frequency of care related to both system and patient factors. Our data suggests that hospitals are seeing the highest risk, drug using subgroup within this population. Creating better tracking and follow-up mechanisms would certainly decrease the number of women falling through the cracks. Coordinating with community-based organizations, such as Families with a Future Networks, and expanded city public health nurses-- all of whom are dedicated to outreach and follow-up of pregnant women - would be key.

IMMEDIATE CONSEQUENCES OF STUDY

Specific spin offs of these data in the University of Chicago Hospitals has included the development of a protocol to interview and actively case manage women post partum who have entered the institution. This is being done to further assess the nature of our specific problem, work more closely to build linkages with specific prenatal providers, educate women post partum and offer them better, more intense follow-up and linkage to community support systems. Furthermore, a commitment has been made to improve and expand our ambulatory case management and

tracking systems.

Future Data Collection: As a result of this pilot, a statewide data base is being collected to determine the character of this problem statewide, to refine the analysis of factors this study raised as contributing to the problem, and to determine the efficacy of having an ongoing statewide quality assurance tool such as the "OB walk-in" measure. Perinatal Centers and State health authorities are exploring the OB walk-in indicator as a potential surveillance marker of how well the primary care system is functioning. Should there be increased regulation of all providers linking reimbursement for prenatal care to delivery and should there be specific actions taken between public sector systems and community hospitals in forging better linkages, we would expect to see this indicator of system dysfunction decrease.

CONCLUSION

In closing, this paper has illustrated problem areas, as derived from obstetric walk-in patient data, in the way the primary/prenatal care system and community hospitals are linked despite the very sophisticated regionalized perinatal system in place in Illinois. Certainly, social problems and big city public service problems plague us and make it quite difficult to close gaps in perinatal care. However, we have also identified some possible remedies and approaches which deserve careful study and a prospectus for continuing the important work of problem assessment in an effort to be as specific as possible in designing strategies to reduce the occurance of emergency obstetric walk-in patients.

Table 1

SURVEY VARIABLES

Demographics:

Age
Race
Zipcode
Payor Source

Clinical Information:

Gravidity
Parity
Gestational Age

Prenatal Care:

Y/N
Source, if more than one, why the change
Number of visits
Seen at another hospital before this admission?
Admission complaint

Substance Use:

Tobacco
Alcohol
Marijuana
Heroin
Other
Method of Use

Maternal/Neonatal Outcomes:

Type of Delivery
Maternal Complications
Infant Sex, Weight; Apgar scores
Nursery - Regular, Special Care/Intensive Care
Stillbirth
Neonatal Deaths

Table 2
Demographics

Network Births*

	(ALL RACES)				(BLACKS)			
	REGIS	** WALK-IN SURVEYED	X^2	P	REGIS	WALK-IN SURVEYED	X^2	P
N=	4492	248			2569	201		
% Black	62.7	92.2						
% Teen	18.3	31.0			24.5	32.8		
% Grav>4	22.8	39.5			25.2	38.8		
% No Care	0.6	36.7			0.9	35.8		
% Suburban Hospital	36.3	32.7			22.7	32.8		

*Source: Delivery Case Record (DCR)

**N=248 reflecting those surveyed who could be linked to a DCR record.

Table 3
Payor Source

Network Births

	(ALL RACES)		(BLACKS)	
	REGIS	OB WALK-INS	REGIS	OB WALK-INS
Commercial Insurance	27.9%	5.7%		
HMO	18.2%	5.2%		
MEDICAID	34.7%	58.5%		
NONE/SELF	2.4%	10.5%		
NOT RECORDED				
	X = P		X = P	

Table 4
Maternal Complications

Network Births*

	(ALL RACES)				(BLACKS)			
	REGIS	WALK-IN SURVEYED	X^2	P	REGIS	WALK-IN SURVEYED	X^2	P
N=	4492	248			2569	201		
% Preg.Comp.	39.1	44.4			41.0	41.8		
% L&D Comp.	26.9	37.1			27.1	34.3		
% Drugs	2.0	15.3			2.8	15.9		
% STD	2.0	0.8			2.9	1.0		
%Pre-eclampsia	3.2	3.6			3.7	3.5		
% IUGR	1.6	2.4			1.9	2.5		
% PROM	4.4	8.1			5.1	9.5		
% Abruption	0.6	2.0			0.6	2.0		

*Source: Delivery Case Record (DCR)

Table 5
Birth Outcomes

Network Births*

	(ALL RACES)				(BLACKS)			
	REG	WALK-IN SURVEYED	X^2	P	REG	WALK-IN SURVEYED	X^2	P
N=	4492	248			2569	201		
%VLBW	2.2	4.2			3.0	4.6		
% LBW	11.2	25.0			12.9	26.5		
% Premie (37 weeks)	18.1	31.7			21.0	33.2		
% APGAR 1 0 - 3	1.9	3.8			2.4	3.6		
% APGAR 5 0 - 7	3.5	4.2			4.6	4.1		
% ICN	3.7	5.3			4.3	6.0		
% SCN	6.4	8.8			5.4	9.7		
FD RATE	7.6	32.3			9.3	24.9		

*Source: Delivery Case Record (DCR)

Table 6
Quantity & Source of Prenatal Care for Unregistered
Walk-in Obstetric Patients

Site	Total (N=220)		%5+ Visits	City of Chicago (N=140)	%5+ Visits	Suburban CookCty	%5+ Visits
Brd.of Health (city or county)	77	(35%)	74%	32.8%	72%	48.7%	80%
Pvt.Physician	52	(23.6%)	42%	23.6%	--	31.7%	--
Hospital	45	(20.5%)	61%	24.3%	--	9.8%	--
Neighborhood Health Center	12	(5.5%)	89%	6.4%	--	2.4%	--
Care Out of State	11	(5.0%)	33%	----	--	----	--
HMO	8	(3.6%)	57%	3.6%	--	2.4%	--
Not Specified	15	(6.8%)		----		----	

Table 7
Reasons for Not Getting Prenatal Care Among
Unregistered Women Receiving no Prenatal Care

Most Frequent Responses (N=96)	
No Particular Reason	55.1%
Financial Reasons	18.7%
Didn't Know Pregnant	8.4%
Not Keeping Baby	4.7%
No Child Care	3.8%
No Transportation	3.7%
Moving/New in Town	1.9%

Table 8
Substance Use Among Obstetric Walk-ins
(N=323)

	(n)	(%)
Tobacco	103	32.0%
Alcohol	64	19.9%
Cocaine	48	14.9%
Marijuana	43	13.4%
Heroin	10	3.1%
Not Specified	2	.6%
Amphetamines	1	.3%
PCP	1	.3%

Table 9
Selected Characteristics and Birth Outcomes
Among Unregistered Obstetric Walk-ins
With and Without Substance Use

	With Substance Use (Percent)		Without Substance Use (Percent)		X	P
Age:						
<20	24	(16%)	66	(44%)		
20-34	117	(78%)	78	(52%)		
Gravida:						
1-3	74	(49.3%)	111	(74.0%)		
4 or more	76	(50.6%)	38	(25.4%)		
Prenatal Care:						
Yes	103	(68.7%)	105	(70.0%)		
No	44	(29.3%)	42	(28.0%)		
Prenatal Provider:						
Private MD	24	(23.3%)	27	(25.7%)		
BOH	29	(28.1%)	45	(42.8%)		
Hospital	31	(30.1%)	12	(11.4%)		
NHC	3	(2.9%)	8	(7.6%)		
HMO	4	(3.9%)	4	(3.8%)		
Gestational Age:						
<37 weeks	53	(35.3%)	35	(23.3%)		
>37 weeks	79	(52.7%)	84	(56.0%)		
NR	18	(12.0%)	31	(20.7%)		
Birthweight:						
<2500gm	40	(26.3%)	30	(20.0%)		
>2500gm	98	(64.5%)	109	(72.2%)		
	22	(14.4%)	18	(11.9%)		
Adverse Outcomes						
SCN	14	(9.2%)	4	(2.6%)		
ICN	3	(2.0%)	8	(5.3%)		
Stillbirths	4	(2.6%)	5	(3.3%)		
Neonatal Deaths	1	(0.7%)	1	(0.7%)		