ROOSEVELT UNIVERSITY INSTITUTE FOR METROPOLITAN AFFAIRS

HEALTH CARE REFORM IN THE EMERGENCY ROOM

ROOSEVELT UNIVERSITY
THE INSTITUTE FOR METROPOLITAN AFFAIRS

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July 26, 1994

Mr. James Lutz
Chairman of the Board
Washington Square Health Foundation
875 North Michigan Avenue
Chicago, Illinois 60611

Dear Mr. Lutz:

With Washington Square Health Foundation support, Roosevelt University's Institute for Metropolitan Affairs and the Illinois Hospital Association have taken a lead role in clarifying the importance of hospital emergency department issues in the context of national health system reform.

The Institute and the Association jointly conducted a national conference on that topic, held in Chicago late last year. In addition, the Institute has completed a study of the important issue of emergency department overcrowding, which surfaced time and again at the conference.

Hospital emergency departments currently mirror societal ills. The homeless, the poor and victims of violence all come there to receive health care. The care provided is often low acuity care, routine diagnostic and treatment procedures that could have been dispensed elsewhere. The conference participants felt that national health reform would not, by itself, alleviate the use of emergency rooms for routine care in many inner city communities.

This report summarizes the conference results and the Institute study. It is a valuable planning tool that provides workable approaches for communities that wish to alleviate the crowding of hospital emergency departments.

Sincerely,

Thomas J. Klutznick
Chairman

Richard M. Krieg
Executive Director

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Health Care Reform in the Emergency Department

INTRODUCTION

Health Care Reform in the Emergency Department is the culmination of a two-year project undertaken by the Institute for Metropolitan Affairs at Roosevelt University which was made possible by grants from the Washington Square Health Foundation. The project was launched in order to further define the problem, sort out the causes of emergency department (ED) overcrowding, develop new approaches to reduce it, and highlight its centrality to current discussions on health care reform.

The project was carried out in two stages. The first was an assessment of the national ED overcrowding crisis as viewed through the specific situation in Chicago. This work was followed by a conference which examined the implications of the national ED crisis in the context of health care reform. Summaries of each component follow this introduction.

When Robert M. Williams, as president of the American College of Emergency Physicians, said that the health care system is crashing in the emergency department, he was speaking for health officials and workers throughout the country (1). Every day from Maine to California, EDs face too many patients--patients who have waited too long for attention and many of whom have too little coverage for their treatments. Half or more of those patients could be seen much more economically and efficiently in non-emergency room settings, but because of the current structure of health care in America, for most of them, there is no place else to go.

The function of emergency departments is changing because the nation lacks a reasonable system for providing primary care. No longer is emergency service provided primarily for patients in life or limb threatening health crises. The modern emergency department serves as family physician for the urban poor, and as after-hour physician substitute for the entire population. As many as 65 percent of emergency department patients today are provided with low acuity care, routine diagnostic and treatment procedures which could have been dispensed elsewhere. And, even among those who seek treatment for trauma, the number of patients in emergent conditions is relatively small. According to some estimates only 10 to 15 percent of emergency department patients have life or limb threatening conditions (2,3).

Today, the overcrowding problem is most acute in urban settings. With increasing frequency hospitals in urban areas reach patient overload and are forced to go on "bypass," routing new arrivals to other hospitals. Each ED bypass increases the patient numbers at other hospitals setting the stage for the next bypass and threatening communities with the potential of total shut down. But the problem is not limited to the nation's major cities. The rate of increase in ED patient load is rising most rapidly in rural areas, and will continue to do so as the population ages and if the malevolent expansion of violent crime and illicit drug use persists. From 1981 to 1991 the number of hospitals in rural areas decreased by 12.4 percent (4). In

many cases their demise was precipitated by the rising unreimbursed costs of their EDs. The modern emergency department is under siege, and the crisis is a national phenomenon.

The hospital ED is a pivotal point in the present health care system. Emergency departments, particularly in public hospitals, mirror societal ills (5). Within the ED, the homeless, drug abusers, the poor, the old, and victims of violence all come to receive health care. Discussion of conditions in the nation's EDs has to be a major part of the dialog on national health reform. It is a discussion that is irrefutably tied to issues of primary care. This paper examines that connection and defines the social circumstances which exacerbate its consequences, and it offers specific strategies to ameliorate the problems which confront the nation's emergency departments.

EMERGENCY DEPARTMENT ASSESSMENT: THE CHICAGO EXAMPLE

In 1992, with funding from the Washington Square Health Foundation, the Institute for Metropolitan Affairs (IMA) was commissioned to conduct a study of the ED crisis. The assessment addressed national issues but used as its model the Chicago health care delivery system. Project personnel surveyed Chicago emergency departments, carried out interviews with practitioners and reviewed existing literature. Although the focus of this project is local, its significance is national.

The project was launched to sort out the causes of emergency department overcrowding and develop new approaches to reduce it. In order to accomplish its mission, the project, through a variety of information sources, produced a matrix of strategies for the reduction of inappropriate emergency room use. We believe that this new tool (see Appendix) is the first attempt nationally to systematically lay out approaches to address the problem. The strategies matrix lists a large number of interventions aimed at reducing overcrowding and then attempts to sketch some of the benefits, costs and risks inherent in each approach. It is meant to be used by planners, researchers and practitioners in order to develop customized strategies to address ED overcrowding. It is hoped that, over time, many of the vacant cells in the matrix will be filled in.

CAUSES OF EMERGENCY DEPARTMENT OVERCROWDING

For clarity, the causes of ED overcrowding are divided into four major categories: cutbacks in human services which make the ED the only option for the poor or uninsured and underinsured; primary health care issues; bed capacity/bed control which have affected health status; community, welfare and health service capacity; and trauma, which is also mentioned here because violence in major cities is on the rise. When EDs and intensive care beds are overcrowded, trauma victims sometimes suffer by having to wait or to be rerouted to a hospital further away. Each of these four determinants must be considered in order to develop integrated recommendations to relieve ED overcrowding.

CUTBACKS IN HUMAN SERVICES

The 1980's were characterized by federal government antipathy towards health and social service programs established during earlier decades. Government programs that benefitted the poor, especially the working poor, were slashed. Although this retrenchment had a detrimental effect on the health of the nation generally, the Medicaid, family planning, nutrition programs, mental health, Social Security and Medicare programs were specifically targeted. Diminished federal assistance negatively affected ambulatory health centers and other clinics. Many hospitals and clinic sites were closed during this period, leaving diminished outpatient care, particularly in communities most at risk for health problems. From an historical perspective, the rise in ED visits and in patient acuity is not surprising. It will now take some work, at the local, state and national levels, to reverse the trend.

PRIMARY HEALTH CARE

Adequate primary care services are lacking in many communities. Public health departments are overburdened and underfunded, community health centers are in short supply and the number of private physicians accepting Medicaid payments is decreasing. Millions of Americans have no regular source of health care. When citizens need health care but have no where to go there is still the time-honored "emergency room." The emergency department is the place where help is available and payment not immediately asked for. It is convenient, it is open after school, after work and no appointment is necessary. It is accessible to everyone in ways that most primary health care services are not.

Literature reviews and interviews conducted through this project verified that it is problematic to assume that lower acuity cases which present in emergency departments are indeed "non-urgent". Medication refills, information, work-ups for flu and infections of all kinds, need to be seen when and where people are motivated to seek care, so that conditions do not worsen nor is the receipt of care delayed (6,7). People can best receive primary health care in their communities, and EDs should remain as backup to a system of community health care. They should also serve as referral sources until it is demonstrated that capacity and accessibility to quality community health services exist.

The present lack of primary care can lead to delaying treatment and consequently to a sicker population. Hospital admissions from the ED have increased from 30 percent to 40 percent. In a series of articles in the *Chicago Tribune*, the ED is described as seeing sick people who perhaps could have been helped earlier in the development of their condition in a community setting. Availability and use of primary care as an alternative to the ED is, in the long run, one of the many prevention strategies to be used to reduce ED overcrowding. However, there is no doubt that people coming to the emergency room are sicker for a variety of reasons and present with true emergency situations.

HIV infections, medical problems related to substance abuse, violence related injuries, ailments of an expanding elderly population and the physical health problems of the deinstitutionalized mentally ill will continue to impact emergency department use.

STAFFED BED CAPACITY/CONTROL

Deficits in staffed beds and the inadequate use of existing bed capacity is a pressing problem confronting the ED today. As the increased rate of hospital admissions from the ED suggest, patients first seen in the ED often require acute inpatient care. A substance abuser appearing in the ED may suffer from a host of medical problems requiring inpatient treatment. Deficits in community services also might prescribe hospitalization. The lack of suitable long-term care for the elderly results in many stabilization admissions. Even if the demand for ED services were decreased through expanded community ambulatory care capacity, the availability of staffed beds within a hospital can serve as a throttle in producing or reducing ED overcrowding.

In some parts of the country and some institutions, there has been an overall increase in hospital admissions. Despite reduced length of stay, inpatient occupancy has reached a plateau

or has increased in many facilities. Hospital closures coupled with a highly regulated inpatient census can lead to a lack of available beds. The nursing shortage has stimulated a focus on "staffed" bed capacity independent of licensed or actual bed count. In Chicago, "staffed" bed occupancy, at 70 percent metropolitan-wide, is going up slightly as the number of staffed beds decrease and patient days increase.

In an effort to remain solvent and to contain costs, many hospitals are regulating average daily census at 90 percent or higher. Studies have indicated that when the occupancy rate exceeds 85 percent, the flexibility needed to accommodate admissions from the ED is severely diminished (8). Subsequently, patients may be held over in some EDs for as long as two days (IMA meeting of Chicago ED nurse coordinators, October 21, 1991).

It is important to point out that hospital bed capacity needs are extremely difficult to assess. Little is known at the metropolitan level regarding how hospitals regulate their own beds for elective and emergency admissions as well as the movement in and out of intensive care units. To a large extent, we do not know how over-bedded or under-bedded the local health care system is. After leaving an era appropriately concerned with excess capacity in overall bed supply, policy makers and health planners have failed to analyze available data and to focus on the maldistribution of beds. Insufficient work has been done, for example, on the adequacy of Chicago's specialty care capacity for psychiatric, substance abusing as well as pediatric, adult and neonatal patients.

The lack of regionalized planning for bed utilization and the maldistribution of hospital beds are factors to be considered in any serious attempt to correct ED problems. Internal hospital bed planning must also be examined.

TRAUMA

Trauma centers have been hard hit by rising health care costs, and the increase in violent crime in low income communities. Much of the trauma care delivered is uncompensated, and regions are struggling to keep their trauma networks afloat. In the Chicago area, four hospitals have dropped out of the trauma network in recent years, leaving a substantial gap in Level 1 trauma care on the south side of the city. Fledgling legislation to relieve faltering trauma systems has been introduced at the federal level, but with insufficient funding to make a difference. Until measures are taken to bolster financially ailing trauma centers, they will continue to close.

At the same time, violent crimes of every type are on the rise in large cities. During the last year in Chicago, unprecedented surges were recorded in the number of deaths and injuries attributable to violent crimes (8). Chicago's annual homicide rate is close to 1000, and it is estimated that for each homicide there are over 40 non-fatal assaults.

The necessity for trauma care will increase over the foreseeable future. Some of the deep-seated problems that reflect in the trauma injury figures are historical and generally acknowledged, such as poverty, racism and the lack of education. More recently recognized is the significance of unemployment and widespread drug abuse. Accidents, another type of trauma, are also on the increase. Alcohol and other substance abuse contribute significantly in

this arena as well. The solutions to these problems are societal and beyond the scope of this report. However, it is important not to lose sight of these larger public health and primary prevention issues and how they impact on any health care delivery system.

While trauma injury is increasing, it is still a small, but vital, percentage of all ED care. When ED overcrowding exists, it can influence trauma care by closing the doors of the emergency room to those most immediately in need. Trauma injury, by definition, is critical and EDs must remain open to those in serious danger either from acute illness or injury.

MAJOR FINDINGS

A summary of principal findings as to the nature and scope of ED overcrowding follows. These results were based on an extensive literature review, interviews with physicians and nurses from 11 emergency departments in Chicago and a survey of emergency department nurse coordinators from these facilities. Each of the eleven hospitals that contributed have significant ambulance bypass histories. This collective information verified that the following points are crucial for any discussion of the ED overcrowding dilemma.

1. ***Linkage with primary care for follow-up and development of primary care capacity is a critical strategy in preventing unnecessary use of emergency departments and in fostering early detection and treatment of disease to reduce ED use and hospitalizations.***

Two California public hospitals reported that unmet need rather than inappropriate use resulted in emergency room visits for non-urgent care. Harbor-UCLA Medical Center in Torrance, California found that almost half of the patients who left the emergency department without being treated either could not afford care or knew of nowhere else to go. San Francisco General Hospital reported that 17 percent of those who left could not gain access to a physician's care within the next week (9).

CRG Corporation, consulting on behalf of the Robert Wood Johnson Foundation, looked at ED overcrowding in Chicago. They reported that although access to urgent care within the hospital setting is crucial in meeting immediate needs for care, emergency and urgent care cases should be formally linked for follow-up to the primary care system. Linking with primary care sources for the Medicaid and uninsured patients was of particular concern. Furthermore, they suggested that new programs should be developed which include joint staffing of hospital-based urgent care programs (hospital and a primary care provider) in order to make referral relationships legitimate and clear to the patient; "hospital EDs and primary care providers should be linked through a direct business relationship which is clear to the patient" (10).

Both literature reviews and interviews conducted through the project portray the ED as seeing sicker people who perhaps could have been helped earlier in the development of their condition in the community setting, either in a doctor's office or neighborhood clinic. Availability and use of primary care as an alternative to the emergency department is, in the long run, one of the most important prevention strategies to be used to reduce emergency department overcrowding.

Primary care capacity building is obviously a major issue, apart from ED linkage. The need to build this capacity is demonstrated by the role EDs continue to play and the continuous pressure hospitals, public health departments and neighborhood health centers experience when patient demand cannot be met.

2. ***Acuity levels in EDs are rising as a result of the delays in care caused by inadequate primary care systems and primary disease prevention strategies within our health system and also by the very nature of modern epidemics which create the need for urgent care. Emergency medicine physicians and nurses report patients are typically more sick.***

Literature reviewed and conversations with emergency room personnel report that typically 30-40 percent of patients admitted to hospitals are admitted via the emergency room. At the Arizona Health Sciences Center, a 283-bed teaching institution located in an urban area where approximately 48 percent of the insured public is enrolled in health maintenance organizations and where there are many competing urgent care centers and hospital emergency departments, it was found that 27 percent of inpatients were admitted through the emergency department.

Ten percent of records of all ED visits during a four week period were randomly selected for review of acuity levels and waiting times in the emergency department. Eleven percent of visits were admitted as inpatients, only 6 percent presented with life-threatening conditions or cardiac arrest; however, 60 percent of those sampled needed major care and only 34 percent of cases required minor care, a combination of least urgent, minimal and minor care (11). As a standard of comparison, the plan for Provident Hospital in Chicago has estimated that 17 percent of its ED visits will result in admission.

Recent studies in California have looked at acuity levels and the impact of overcrowding by surveying those patients who have left emergency departments without being treated (9). These studies have found that 46 percent of those who left were judged to need immediate medical attention; 29 percent required treatment within 48 hours and 11 percent were hospitalized within one week. In a follow-up survey conducted by a Chicago community hospital of those who had left their emergency department unseen, 95 percent of those who left needed some care and only 5-6 percent of those surveyed did not remember their health problem as being that important.

In Chicago, Northwestern Memorial Hospital nurses reported that only 15-20 percent of their ED load is triaged to an existing 4-bed fast track unit. Interviews with emergency department physician chiefs at Children's Memorial Hospital disclosed that historically 60 percent of cases coming into the emergency department were considered non-urgent; however, non-urgent cases have decreased in the last several years as a proportion of total volume. Currently, at least 50 percent of families who report to the CMH emergency department present with children having problems requiring some immediate attention. It is recognized that as a specialty hospital, Children's Memorial's ED is a site that will draw acute problems from across the city.

Higher acuity levels reported from a children's hospital may also point to the greater need for readily available, on the spot care for children. While mothers or fathers may delay the receipt of their own health care, if they believe their children to be sick, they do not want to wait.

This is a topic warranting further research and investigation. The results of such a study could yield important information about "perception of need," patient behavior, actual availability of care and what is needed with respect to patient education.

Respondents contacted through the project verified that both overall acuity in EDs and the role of the ED as a source of care for not necessarily urgent but definitely sick individuals requiring timely attention has increased in the last ten years. This has occurred despite great hopes in the early 1980's that build-ups in ambulatory care capacity would reduce the role of the ED as a provider of ambulatory care (7,9).

3. ***Literature reviewed and personal interviews indicate that acuity levels and patient use of emergency departments are rising in communities where there are available primary care and urgent care alternatives. From this, it is clear that even in an ideal health care delivery system, the emergency department will continue to play an important role as a first line portal of entry.***

A survey at Children's Memorial Hospital in Chicago concluded that 89-95 percent of those who use the emergency department have a primary physician. Children's Memorial, as a specialty hospital, could be expected to rank high on this measure. However, the preponderance of patients with other sources of care may also be a product of the confidence family members have in their own physicians, the availability of evening and weekend hours offered by community providers and the fact that the ED has some very special attributes as a source of care. An important editorial in the Journal of the American Medical Association stated:

> Future efforts to redirect walk-in patients away from hospital emergency departments must address the prevailing mix of barriers and incentives that lead many patients to the emergency department triage desk. What to us seems wasteful or inappropriate use of the emergency department may actually be quite rational when viewed from the perspective of the (low income) patient. Hospital emergency departments are always open . . . a significant advantage to those who cannot afford to forgo a day's wages. In contrast to outpatient clinics, which may require physician referral or an appointment scheduled weeks or even months in advance, a visit to the emergency department requires no prior arrangements. Co-payments at the door are rarely requested and never required. Ancillary support--such as that given by the laboratory, radiology and social work departments--are available on site. Perhaps most important, prescriptions written in public hospital emergency departments can generally be filled at the hospital's outpatient pharmacy at far less cost to the patient than prescriptions written by private physicians or community clinics. Any combination of these factors may be a strong incentive to using an emergency department even when primary care is available elsewhere. When neighborhood clinics are inadequate, overburdened or nonexistent, the flow of inappropriate visitors to hospital emergency departments should come as no surprise.

For all patients, rich and poor alike, EDs can be viewed as appropriate and efficient places to go for on the spot, quick and higher levels of care than one might be accustomed to receiving in their physician's office or local clinic. Specifically, if one is not sure what's wrong, EDs can handle ailments from simple to complex. Americans are conditioned to go to EDs, not

doctor's offices, for lacerations, sprains, sport injuries and other problems. If access to a certain level of technology is needed, not all primary care sites are equipped with special radiology or laboratory support, nor are all primary care physicians comfortable with diagnosing specialty medical or surgical problems even as simple as the suturing of lacerations.

Under the most ideal system, it might be estimated that 15-20 percent of emergency visits would still consist of non-urgent, convenience care. Admittedly, the U.S. requires much realignment and building of the primary care system to foster improved primary care utilization. However, the ED will remain a critical point open all hours of the day when people can appropriately receive triage, treatment and entry into the system.

Many reports discuss the desirability of developing primary care walk-in capacity for evenings, nights and weekends. Perhaps it is more efficient to build this aspect of primary care capability adjacent to the hospital ED and thereafter linked to systems of primary care for ongoing and routine provision of service. Further study regarding the cost effectiveness and feasibility of various alternatives is essential.

4. ***ED overcrowding is strongly influenced by the existing gap between demand for acute care, inpatient services and existing bed capacity and/or effective bed control within institutions. It will be prevented by formulating strategies to add and/or use capacity more effectively. The literature is consistent on this point and discussions with local ED nurse clinical managers and physicians from community hospitals reaffirmed that overcrowding has much to do with adequate bed capacity for sick patients requiring hospital admission.***

To understand the ED, one has to look first at the overburdened inpatient setting -- greater demand for care than capacity can absorb particularly in areas where hospital closures have occurred or higher risk populations reside. This situation places pressure on both general as well as critical care beds. Actual bed capacity in many institutions is lower than licensed beds as a result of staff shortages (e.g. nurses) and other factors. Deficits in staffed critical care beds, availability of nursing home and chronic care beds and specific-use allocation of beds within institutional settings often restrict the flexibility needed to decompress inpatient settings. This can be exacerbated by lack of timely discharge of hospital inpatients and the prompt reporting of vacated beds (12).

Although the overcrowding phenomenon was first noticed and may be most acute in New York City, reports from Massachusetts, California and other urban centers in the U.S. and Canada point out that there often are simply too many sick and injured patients and too few inpatient beds. Local nurse clinical managers and physicians interviewed through the project did not hesitate to state that the problems they face have more to do with adequate bed capacity and bed control mechanisms within their hospitals than the numbers of non-urgent patients seeking primary care within their emergency departments.

5. ***Recent general nursing shortages, including local shortages of skilled intensive care nurses have restricted both hospital and ambulatory care capacity. The nursing***

shortage has not only affected service capacity, but also patient education which ultimately influences service utilization.

In 1986, The American Organization of Nurse Executives released a survey showing that the average vacancy rate for full-time RN positions was 13.6 and climbing. This rate was even higher in inner city hospitals and nursing homes (13). Significantly, this came at a time when more nurses are working than ever before.

The demand for highly complex technological care has increased the demand for more and better educated nurses. Related rising health care costs have resulted in quicker and sicker patient discharges, with a consequent demand for home care by nurses. In school districts such as Chicago, where nurses could clearly have an impact on prevention and education, one RN school nurse is assigned to four or more schools. Ambulatory health centers and public health departments cannot fill their nursing vacancies. Demand exceeds supply on every level of the system.

The availability of alternative career paths for women, generally low compensation and inflexible working conditions are some of reasons for fewer entrants into the profession. Salaries for nurses remain below those of other female professionals, nor can nurses expect their wages to rise substantially as a result of many years of experience.

There has been, until recently, a lack of positive outcomes by nurses in the political arena in most states. In Illinois, nursing has lagged behind other professions in the area of third party reimbursement for services as well as behind nurses in other parts of the country. Until this situation changes, nursing will not be able to reach its full potential. Health care delivery systems cannot operate without nurses. However, maximum use of nursing staff awaits further modification in their responsibilities and prerogatives. In particular, nurses afford a resource pool to be applied to referrals, triaging and expanded primary care capacity pertinent to ED misuse.

STRATEGIES TO RELIEVE OVERCROWDING

The specific strategies and recommendations which follow can be employed jointly or separately, depending upon the need of the particular institution or community. The strategies listed are further described in the matrix which appears at the end of this report. The recommendations, which emanate from the matrix, are considered to be the most feasible of the strategies based on information uncovered to date. The last recommendation listed is a systems approach to planning which will lend itself to demonstration projects in specific communities and which makes full use of project findings. Community groups, institutions, public agencies and others are encouraged to employ this report and to make use of the matrix to assist in solving ED overcrowding issues. Policy institutions and foundations can address the issues raised in the report by initiating projects for demonstration purposes.

RECOMMENDATIONS

TRIAGE, HOSPITAL BASED "FAST TRACK/WALK-IN" UNITS AND PRIMARY CARE LINKAGES

To the extent that the primary care system is inadequate or poorly coordinated, the need for the ED continuing as a source of acute, walk-in services remains. As stated elsewhere in this report, the ED is a time honored place where people in need of health care present when other resources have failed them. This use of the ED as an ambulatory care site engenders the type of overcrowding that ties up staff, equipment, rooms and ED beds. Primary care overcrowding of EDs results in unnecessarily long waits. This is caused by a higher volume of walk-ins than an ED staffing pattern can handle, and by the fact that the ED setting, by design, assigns higher priority to more acute cases. The ED is not configured for optimal handling of health problems that could be handled in a community outpatient setting.

Hospitals have begun to handle this patient volume more efficiently through: triaging of walk-ins by nurses or specially trained staff that assigns acuity levels to patients and shunts them to an appropriate level of care; fast tracking to an acute care clinic connected to the ED; and appropriate staffing to separate this "traffic" from the rest of the patients.

The IMA recommends these approaches as the very minimum for hospital EDs with a high volume of walk-in, low acuity patients. In Chicago, although some local hospitals currently utilize this type of approach, a closer look at all hospitals is necessary. Different implementation models, financial incentives for or against fast tracking and incentives for staff to operate in this type of setting must be better understood before wholesale implementation occurs.

Fast Track, Linkage, Case Management Plan

In Chicago, as in other cities, some local hospitals have begun to implement these systems, and some have operated them for years. A broader effort in the area of referral and case management is necessary. Local EDs should develop an expanded capacity to connect at risk families or those without regular primary care providers to community systems of health care for long term support. Hospital EDs can link with primary care providers and social service agencies in their communities and establish concrete referral relationships. Using a case manager or linkage coordinator, patients seen in the emergency department can be educated about appropriate use of the ED and the importance of a regular provider of care. They can be given a specific follow up appointment at a community care site.

Patients can be reminded of the appointment by card or phone and via case-management or linkage to ambulatory care settings in the community. This must be coordinated and incentives provided for all service delivery components. This "fast track, linkage, case management plan" is our recommendation to maximize the role of the ED as a respondent to the ever growing need for primary care.

Incentives are necessary to achieve this. In order to embrace the above plan as viable and cost effective, hospital EDs will have to be compensated for their part in the provision of basic health care. We recommend that if hospital EDs are willing to set up the "fast track, linkage,

case management" model, they then should be compensated as "federally qualified look-alike health centers" or reimbursed at full cost utilizing comprehensive hospital outpatient rates.

Hospitals also need to staff appropriately and not tie up trained ED staff in the provision of primary health care. Services for the uninsured should be subsidized by special state/federal pilot programs. This would provide the necessary incentives for hospitals to allow their EDs to take a comprehensive approach towards defining their function as primary care provider. This is the very time to experiment with new approaches holding the prospect of lower costs and improved efficiency.

Linkage and Exchange of Staff with Community Health Centers

The ED serves an important function by being available to deliver health services when and where people are motivated to seek them. Recommendations have been made for demonstration projects in which hospitals and primary care centers link and jointly staff ED walk-in/fast track units (14). The presence of primary care center physicians and nurses clearly conveys the message to ED users that they could have received their care "down the street" and begins to transfer allegiance on the part of the patient to the primary care provider to which he/she will be referred. This recommendation is innovative and sound, but not as easily attainable. It is far more limiting than a community wide coordination of ED and primary care services for referral and follow-up. However, the IMA supports this type of demonstration for effective primary care linkage.

Likewise, new arrangements may be possible with managed care plans. For example, it might be possible for a managed care plan to triage patients only at night for a prescribed geographic area. If the visit resulted in a hospital admission the following morning, records could be transferred.

Community-Based Case Management and Health Stations

Another strategy to resolve the acute, walk-in type of ED overcrowding is the preventive identification, through community agencies, of families at risk or those with no regular source of health care. These individuals should be provided with education and referral into the health care system. Again, a case manager or linkage coordinator (nurse, social worker or community advocate, depending upon the need and staffing at the site), would explain the importance of receiving regular, continuous care. Patients would be referred to a community provider for a specific appointment, and follow up would be provided. Suitable community agencies include WIC sites, schools, Head Start offices and Public Aid sites. Ideally, this approach should be tried in communities that have high ED usage for low or moderate acuity problems. Data are needed to identify these communities and then should be made available to community agencies, public health departments, health planners and policy makers interested in the issue.

Outstationing

A more intensive, but very effective, application of community-based case management is an outstationing model. Nurses or nurse practitioners connected to hospitals or community health centers can provide health assessments and triage at community based non-health agencies such as housing authorities, senior housing, parent-child centers, multipurpose social agency settings or any area of high patient traffic.

Nurses would assist the community in health promotion endeavors and dispense needed hands-on care. After the initial encounter with the nurse, clients are referred into a regular source of primary care; i.e., a physician's office, public health clinic or community health center. These sources are responsible for the ongoing primary care, and should be linked to 24-hour call capability.

Disease-Specific Case Management

A variant of outstationing would involve identification of specific health care problems that appear in the ED on a frequent basis. Responses (e.g. treatment, prevention, education) internal to both the ED and alternative providers would be organized around the disease in question. This would include chronic diseases of an episodic nature such as asthma and sickle cell disease with pain crisis. Families having a member with such an ailment would be counseled regarding optimal use of the health care delivery system, including ED use when appropriate. However, every attempt would be made to coordinate with non-ED providers to handle this episodic care in the most effective manner.

Community Education

Another general approach, best characterized as a media education approach, promotes in a mass way -- through radio, TV, billboards, newspapers, and community outreach -- the importance of acquiring a consistent source of health care and using the ED appropriately. This campaign would also be integrated to a hotline referral for sources of primary care. The IMA recommends this approach in conjunction with the other strategies mentioned. On its own, media communication of this nature is potentially risky. Unless there are real, alternative sources of health care, a message discouraging use of the ED can potentially restrict access. This type of campaign, however, in combination with a total community approach, can be effective and rewarding. Different forms of and locations for community education are outlined in more detail in the matrix for use by planning groups concerned with over use of EDs.

Provider education is another important piece of the community education strategy. A mass message must be echoed and given credibility by health care and other human service providers in the community. For this to happen effectively, these groups must be educated by their professional societies, governmental agencies or the community organizations about the issues, proposed strategies, and their responsibility in getting the message across. Here, again, incentives will be important in getting providers to buy into an overall strategy that may include: private M.D.s sharing a 24-hour answering service call; changing office hours; and/or linking to an overall network for case/management and referral.

PRIMARY CARE CAPACITY APPROACHES

In order to organize effective linkage and referrals between hospital EDs, community ambulatory care and community agencies, community primary care capacity must be examined. This strategy was the major focus of the Chicago and Cook County Health Care Summit. Efforts are currently underway in Chicago to examine the question of quality primary care capacity in metropolitan Chicago. As the issue of ED overcrowding becomes focused around a specific set of institutions and communities, the IMA recommends jointly

reviewing, with the Council, the plan for primary care capacity in these specific communities and appropriate linkages of ED services to primary care providers.

Nurse Managed Primary Health Care Center

The University of Illinois at Chicago College of Nursing and the Institute for Metropolitan Affairs jointly launched a nursing center model on Chicago's west side in conjunction with the Midwest Community Council. The facility, located in East Garfield Park, is examining the roles nurses can play in providing affordable primary health care to low income city residents.

The facility is intended to offer a set of functions that have a unique bearing on reducing ED overcrowding. The nursing center model will incorporate a highly developed patient referral system that can expedite the movement of low acuity cases from the ED to appropriate and available community care sites. The nursing center also holds the promise of identifying and mediating the needs of families at risk. With a strong predilection towards health promotion and education, the center will also contribute to "front end" reduction of ED low acuity cases.

Bed Capacity and Control

This project confirmed that the problem of bed capacity and inventory/control mechanisms governing the admission of patients continues to be a large problem in many institutions. Analyzing the adequacy of bed capacity in specific geographic or medical specialty areas should be one of the first items on the agenda to reduce ED overcrowding.

There has been a strong historical focus on bed supply and population-bed ratios. Small area analysis, however, must be used in examining the issue in the context of ED overload. For example, the Metropolitan Chicago Healthcare Council (MCHC) and the Illinois Hospital Association (IHA) have data on hospital utilization and ED overcrowding which could be used for targeted research in this area. The IMA recommends that relevant organizations and committees look specifically at these data to define a study which would examine relationships between licensed beds, staffed beds, reported bed shortages, ambulance diversion and hospital bypass. The study would also investigate intra- and inter-hospital bed allocation mechanisms and their relationships to ED overcrowding.

Other topics for exploration are: restructuring hospital bed allocations in response to the stabilization admission needs of older adults and increasing chronic care capacity. Further, observation units installed in EDs to monitor for up to 24 hours patients who might not require admission but need stabilization and assessment could have a substantial impact on hospital operating efficiency and ED overcrowding.

Discussions with nurse clinic managers assigned to the ED revealed that internal hospital procedures; policies pertinent to timely discharge; protocols for moving patients between general and intensive care beds; communication between ED units, general and critical care units to access available beds; and physician roles in making rounds and writing discharge orders on a timely basis -- all appeared problematic and linked to overcrowding in the ED. Pilot projects must be considered to improve intra- and inter-hospital protocols to more effectively utilize existing capacity and to avert ED overcrowding.

The following specific ideas appeared to be most useful to incorporate within such a pilot project:

- Create ***observation bed areas*** within EDs to hold, for up to 24 hours, patients who may not need to be admitted or require stabilization and assessment before admission.

- Consider **separate entry, *triage and holding areas for chronic patients*** (HIV, nursing home) who enter the hospital for work-up of an acute episode or for observation. This mechanism separates these ambulance admissions or walk-ins from the trauma and non-urgent care; these populations have specific needs, multiple admissions/year and are often known to the institution and its physicians or reside in affiliated nursing homes or other skilled care facilities.

- ***Nurse and Administrative Based Bed Control Mechanisms.*** The efficacy of existing nursing and admitting office procedures for facilitating discharge of patients should be assessed. For example, there are a variety of systems that have been installed in hospitals to improve communication between ED nurses and critical care nurses in accessing critical care beds on a more timely basis. The continuing shortage of nurses has led to a lag time in the reporting of empty beds and, consequently, programs such as a "Nurse Cop" have been instituted. Nurse Cop programs review all potential discharges and facilitate/lift barriers affecting discharge delays.

  Special discharge lounges have been created to move patients waiting for physicians, medications or final orders out of their beds more quickly. The role of ED nurses has been expanded to complete and facilitate, on behalf of admitting physicians, the total pre-admission work-up of a patient in the ED, including advocating for quicker admission to inpatient units. These mechanisms contribute to patient satisfaction as well as timely admissions.

- ***Physician Run Bed Control Mechanisms.*** Similar systems have been established utilizing physicians, often salaried by the institution, who police their peers on an interval basis (e.g. every 8 hours), to facilitate discharge of patients. In this analysis of bed control mechanisms, it was clear that physician-managed-and-driven protocols would be most innovative in local hospitals and would, to some degree, immediately respond to problems in accessing available bed capacity. Nurses and admitting offices, after trying numerous systems, often feel helpless in relating to physicians in the discharge process.

  It became clear in interviews with community and teaching hospital emergency room nurses, that a recommended step in improving access to existing beds, is to develop physician-based systems for effective patient discharge. For example, Scarborough Hospital in Ontario reported the effective use of a physician-managed admission system wherein a physician admits only by discharging his/her own patient or borrowing an assigned bed from a colleague (12).

  This represents an area for innovation which can have some immediate effects not only on ED overcrowding but on overall efficiency. It is recommended that

demonstration projects be established to include a thorough review of existing institutional mechanisms. Ideally, it should include a focus group of physicians to identify the degree to which physician managed discharge routines might be helpful in beleaguered hospitals, often operating on the edge of bypass.

For example, at Illinois Masonic Medical Center, committee meetings were established by the Medical Director involving all clinical services. Mandatory meetings were held every two weeks to conduct joint problem solving in areas that included bed control. Of great importance was the fact that feedback was made possible from the end point of patient discharge back to the point of initial triage within the ED. Feedback on the status of patients admitted for inpatient care to those initially involved in ED triage decisions rarely occurs on a systematic basis.

- ***Code Bypass*** was another useful idea which emerged from discussions with hospital personnel. This includes the development of a quick and effective hospital-wide communication system that puts all units, their respective administrators, nurses and physicians on notice that the institution is on the verge of ambulance diversions or bypass. Although this mechanism will not always be useful when a hospital is truly overburdened -- and it is acknowledged that there needs to be sufficient notice to implement urgent procedures -- a number of contacts believed this might be an effective method to elicit action among all hospital units to free general and critical care beds for ED patients. A Code Bypass, which alerts all units, would be a helpful communication device in support of the ED. Hospital staff should consider the efficacy of this option and design suitable protocols.

- Finally, already in place are the ***telephone and computer linked inter-hospital communication systems*** which can quickly inventory actual bed capacity in a network of hospitals (and perhaps citywide) as part of regional EMS systems. A demonstration project should review the current status of these systems, their internal protocols, hardware and software requirements and their effectiveness in distributing the active patient load throughout the hospital system, particularly when institutions are nearing bypass status.

The process and outcome of shaping an effective institutional response system, so critical to ED functioning, can be facilitated through stipends and grants used as incentives to implement innovative approaches to bed control. Institutions, once engaged in the planning process, will be in the best position to determine the specific steps which can be taken.

As noted above, a major priority necessary for the prevention of ED overcrowding is measurement of actual deficiencies in the total staffed bed complement in given areas of a city. Improvements in hospital (internal and external) linkages can facilitate decompression of EDs and should be attempted. However, the literature suggests that many geographic areas may need additional bed capacity.

In cities like New York, which have witnessed hospital downsizing over the past decade, there has been clear recognition that reconfiguration of institutional capacities to cope with

psychiatric populations, aging populations, HIV, drug use and violence often require increases in acute care capacity.

Intermittent reports in Chicago have focused on shortages in pediatric and neonatal intensive care beds. Perhaps, in specific pockets of need, building programs may be needed beyond those already contemplated. Strategic planning to reduce ED overcrowding must incorporate an openness concerning the possibility that planning may reveal a stark need for new capacity in acute care, critical and chronic care beds.

TRAUMA

Well planned trauma systems protect all citizens in times of dire need for immediate high level medical care (15). Recommendations for the Chicago area trauma system need to focus on payment issues. For the moment, the regionalized system, albeit fragile, is still in place. Rather than needing more members, the present members within the system must be retained. Adequate reimbursement of these facilities is the most powerful tool for ensuring the survival of the trauma system.

The amount, method and linkage of payment to explicit expectations about service delivery will have important implications for safeguarding the regionalized trauma network. Legislative appropriations, both state and federal (either Medicaid or special grants), must reimburse the costs of care and the staff/equipment required for trauma readiness. These allocations should be tied (as they are, in part, today) to developing regionalized plans that include triaging, transport, telemetry and communications systems and there must be money allocated to pay for uncompensated hospital trauma care.

PLANNING, RESEARCH AND FINANCE STRATEGIES TO SUPPORT RECOMMENDATIONS

Chicago Model Project: Community Planning/Needs Assessment.
As a vehicle for the implementation of the above strategies, the IMA recommends focusing on specific community areas. The intent would be to develop a needs assessment leading to an Emergency Department Overcrowding Action Plan.

In Chicago, using available data from the EMS system, one or two hospital clusters would be targeted. These facilities would be located in communities where overcrowding is a problem. The specific geographic areas which they collectively serve would be identified. Within the framework of a community-wide planning process, primary health care providers and other organizations with a community orientation would join with hospitals to form a consortium. With technical assistance, a community-specific analysis of the causes of overcrowding and a planning process would be instituted.

This will be expedited by data drawn from the EMS system, hospital information and focus group or other group process methods to elicit a collective and comprehensive understanding of the determinants of overcrowding in each locale. A customized set of activities would be delineated using the compendium of strategies in this report. Specific projects, if implemented, can reduce ED overcrowding and further understanding of the overcrowding problem.

Data particularly valuable to this preliminary needs assessment include:

- Frequency of bypass, ambulance diversion and specific reasons; retrospective or prospective analysis by hospital
- Patient origin data from relevant EDs
- Bed capacity and control measures already in place (to model improvements/ remedies)
- Linkages already in place and existing inter-hospital and hospital -- primary health care center relationships
- Patient risk profiles, e.g. acuity levels and presenting problems, age, admission rates and admissions to specific services; discharge status/diagnosis; routine source of care

A multi-foundation initiative might be considered in order to stimulate the project. Local consortia might compete for available funds.

RESEARCH

Embedded in this report are important research recommendations, explicit or implied. For example, mentioned is the need to develop and use local planning data; the need to develop a financial reimbursement plan for both ED and trauma services and the primary care -- ED linkage models.

Several other key research questions are implied in this report. It is recommended that study of these questions be both central to and integrated with local demonstration projects:

- What aspect of overcrowding stems from deficiencies in the supply of general or specialized critical care (e.g., pediatric intensive care) or chronic care beds?
- Are there clear geographic pockets of need for more primary health care?
- Is there an overall shortage of hospital beds, or a shortage in certain geographic areas? Although covered in the Health Care Summit, more detailed information is needed.
- Is there a significant difference in pediatric vs. adult acuity levels in EDs? In admissions?
- What hospitals have implemented physician-managed admission and discharge systems? Why haven't more hospitals done so? What is the feasibility of alternative approaches and how can they be expedited within the hospital setting?

- Why haven't more hospitals implemented ED fast tracks to take care of non-urgent patient loads? What are the institutional administrative, staffing and financial incentives or disincentives for doing (or not doing) so?

- What is the feasibility of community providers being linked to 24-hour call capability? Could this be expected to make a difference in patient ED usage?

- What incentives will be necessary for implementation of each strategy highlighted in this report?

FINANCING

Support of publicly subsidized capital expansion projects to develop bed capacity and increase primary care in areas of high need may be required. This would take the form of government contracts or grants, public bond issues, and state and federal reimbursement schemes. Another goal would be to raise third party payments to approximate the actual cost of care. Special tax support through user or personal fees on alcohol, speeding tickets and steep drunk driving fines should be tied to increasing financial support for trauma.

National health reform or a national health insurance, tied to effective health planning, is the ultimate solution to funding and implementation of all the recommendations for health care reform. It is important that in the current effort to articulate national reform plans, the issues of ED overcrowding and improved emergency medical care are not lost in the shuffle.

Towards that end the Institute for Metropolitan Affairs, in collaboration with the Illinois Hospital Research and Educational Foundation, organized a conference to examine emergency department issues in the context of health care reform. Sponsored by the Washington Square Health Foundation, the October 1993, "Health Care Reform in the Emergency Room" conference updated and reinforced the preceding recommendations supporting the notion that amelioration of ED problems must be a central component of reform. The conference recommendations follow.

CONFERENCE: THE EMERGENCY DEPARTMENT AND HEALTH CARE REFORM

Underlying the conference was the understanding that the ED is the first-line entry point of a health care delivery system facing breakdown. ED troubles reflect greater ills and predict worse problems to come. As did the Emergency Department Assessment which preceded it, the conference addressed the two elements of the ED crisis: public policy issues and operational strategies. Both create access problems, and both result in overcrowding.

- Systemic overcrowding results when the large numbers of patients seeking care overwhelm the ability of the emergency department to provide it.

- Classical overcrowding results when admitted patients have no place to go within the hospital.

Systemic overcrowding is a public policy issue and requires community and legislative remedies. This is the problem which health care reform must address. *Classical overcrowding* is a hospital problem which can be addressed by revamping operational strategies. The clear message contained in the conference presentations was that efforts must be initiated to address both causes of overcrowding.

PUBLIC POLICY ISSUES: ADDRESSING SYSTEMIC OVERCROWDING

Emergency medicine, by definition, is geared toward illnesses and injuries that require immediate attention. As of 1990, approximately 5,300 hospitals provided this care, generally within an emergency department. Because the ED makes use of expensive equipment and is staffed 24 hours a day by specially trained personnel, its services are extremely costly. Despite the high price for service, ED usage has dramatically increased in recent years (19 percent nationwide from 1985 through 1990), and much of this increase is for health care that would not be classified as emergent in nature (4).

Of the nearly 100 million yearly emergency visits, at least 45 percent and perhaps as many as 85 percent, were made by patients whose injuries or illnesses probably could have been treated more quickly and less expensively elsewhere, if alternatives were available. Unfortunately, for most Americans, there are no alternatives. The following recommendations address this and other public policy issues at the root of the ED crisis.

ACCOUNTABILITY AND NATIONAL HEALTH CARE

Alain Enthoven, Ph.D., of Stanford University in the conference's keynote address set forth some reform goals. Dr. Enthoven was firm in his conviction that implementation of an inclusive health care plan will reduce ED overcrowding. Were there comprehensive coverage, the ED would no longer be the source of primary care for the vast numbers of U. S. citizens and residents who today have nowhere else to go. He strongly supported the concept of universal coverage.

Dr. Enthoven suggested, however, that government central planning models should be viewed with a certain skepticism. In government models, despite the best intentions, decision making tends to be based on political not economic grounds. He also noted that a plan which fails to limit tax-free employer contributions has few built-in incentives to cost containment.

Dr. Enthoven, with his firm belief in a market forces approach to health care, suggested that one of the major flaws in our existing model is the manner in which it creates adversarial relationships between provider and payer through inappropriate incentives. The present system encourages insurers to try to decrease risks rather than improve quality and savings.

Better health care at lower cost would be possible with an accountable plan. In such a system, costly procedures would be concentrated in regional centers. The plan would be structured so that it earned the loyalty and commitment of doctors, more of whom would be trained in primary care. Economic incentives would be used to match doctors to the needs of the enrolled population. Incentives in the form of fees for all those able to pay would be built-in to encourage responsibility on the part of patients. Managed competition, carefully structured pooled risk, and a system to determine what procedures would be outside the pale of coverage would all be part of such a the health plan. This model, which Dr. Enthoven endorses, was first recommended by the Jackson Hole Group.

ACCESS

Michael McDermott, M.D., Director of Observational Medicine at Cook County Hospital in Chicago, moved the discussion away from specific health care reform models to the key policy issues which have created our current crisis and its patient impact.

Of the more than 200,000 patients who make unplanned visits to Cook County Hospital each year, only 15 percent have private insurance. Medicare or Medicaid cover 40 to 50 percent of Cook's ED patients, and the rest are uninsured. Between 30 and 40 percent could be handled in a doctor's office, but, these patients have no way to access such care and don't have much confidence in it anyway.

Dr. McDermott asked how we can substitute our present inadequate system with one which provides quality care in a cost-effective fashion? He suggested that the national health care reforms under consideration offer some promise, but not without problems. Dr. McDermott, as does Dr. Enthoven, believes that reform will undoubtedly improve circumstances for those with no coverage now. As a result, for hospitals like Cook County, the ED situation may get better. The circumstances in suburban hospitals, on the other hand, might well deteriorate.

Dr. McDermott raised a number of questions which reform discussions must address. How do we prevent disease and trauma? EDs can respond to disease but can't provide the preventive care or systematic immunizations which might avert it. How and where will we provide primary care? What can we do to get rid of wasteful care? What criteria will be used to ration care? The latter question is not framed in terms of "should care be rationed," rather the issue is one of how it should be rationed. Dr. McDermott reminds us that a well established health care rationing system is already in place in the United States. It is based on income and race.

Dr. McDermott also believes that the debate on the single payer system must be renewed. Despite implications to the contrary, it doesn't have to be government based. In Canada, there is no oppressive government regulation and intervention, and the system works far better than does ours which isolates usage from real costs. In Dr. McDermott's opinion, the time has come to rationalize services.

IMPACT ON HOSPITAL ECONOMICS

Current policy not only serves the nation badly and provides unconscionable problems for the poor, but also causes a negative impact on the financial stability of hospitals. For the most part, hospital EDs are losing money. Stephen G. Lynn, M.D., Director of Emergency Medicine at St. Luke's-Roosevelt Hospital Center in New York, reminds us that federal law enacted in 1985 mandates that hospitals with EDs participating in the Medicare program must examine people who request care. There can be no ability-to-pay test. The hospital cannot refuse to assess the condition of anyone who requests attention, and it must take the appropriate steps to stabilize the individual if such action is warranted. Thus, the ED is the only legally mandated port of entry to our health care system, the only place in which everyone can be guaranteed medical attention. As the health care system's safety net, EDs will continue to serve more and more patients unless dramatic systemic change occurs. Meanwhile, hospital EDs incur enormous costs in providing unreimbursed primary health care to those in society who have nowhere else to go.

Health care reform must include alternative provisions for primary care for the poor and uninsured. Some experimental models are already in place. The Minnesota system outlined at the Conference is described later in this report. A model which wasn't discussed, but which is worthy of note, is one recently instituted in New York (16). The New York program enrolls Medicaid patients in managed-care programs. Currently, 10 percent of the three million Medicaid recipients are in HMOs, and early data show an average savings of $16.00 per month per patient.

Until more of these alternative systems are in place, the ED system will continue on its crash course. The effect of providing expensive but unreimbursed ED services is calamitous for hospital economics. Today only 81.2 percent of hospitals have EDs, and increasing numbers of hospitals are closing their doors because they can no longer afford to stay in business (4).

The closing of any ED, even when it is only a temporary closure, exacerbates the problem in all other EDs. Quoting from the GAO report, Dr. Lynn made note that the number of urban hospitals which requested ED diversion was at 61 percent in 1992, and 13 percent of them requested it more than 100 times. More than half of the EDs in the country have seen increased incidence of ambulance diversion in the past nine years. Simultaneous overcrowding produces a domino effect, and when a large percentage of a community's EDs request diversion, a serious crisis in health care exists.

FUNDING THE EMERGENCY DEPARTMENT

Financing is, of course, the overwhelming problem of health care reform. Conference speaker John R. Lumpkin, M.D., Director of the Illinois Department of Public Health, highlighted

some of the critical financing issues. He began his remarks with the reminder that the overall cost of health care in the United States is now so high that it affects our global competitiveness. Our dilemma is to mediate between cost and quality. We want lower costs but we also want to realize the dream of providing equal access to quality care for all Americans. And, as we well know, there is no easy fix.

Dr. Lumpkin lauded the Clinton health plan for drawing attention to the need for more primary care physicians. But he warned that there is no way for the nation to meet the actual need, not even if every single medical student for the next ten years trained only for primary care medicine.

He raised the problem of ED fixed costs which he estimates at $4.5 billion per year. That works out to $45 per visit at today's rate of 100 million ED visits. Given those fixed costs, if we manage to reduce by 50 percent the number of emergency department visits, the fixed cost per visit rises to $72.00. According to Dr. Lumpkin, global cost analyses show no benefit with respect to reduction in numbers. Policy makers must begin to consider global costs in addition to fees. They must also devote some thought to the question of where the ED fits in hospital costing schemes. The concept of making the ED a shared resource has great merit.

OUTSIDE FACTORS CONTRIBUTING TO THE ED CRISIS

Many of the conference speakers referred to the complexity of the ED crisis and its relationship to issues far larger than health care. Education, the workforce, law, and, of course, insurance all have a part in it.

- Up to 71 percent of the children under two in the nation's largest cities have not been immunized. A major educational effort is needed to complement the efforts of the health system.

- Most of the uninsured in the United States are working men and women and their families, and one illness can wipe out their savings. Changing corporate policies which favor part-time workers and insurance cutbacks will accelerate this trend.

- Insurance companies exacerbate the difficulties by segmenting risks, excluding pre-existing conditions and cancelling policies after claims. In addition citizen access to care is hampered in many states by legislative mandates placed on insurance companies.

Health care reform should include consideration all of these issues.

THE MINNESOTA MODEL: A REFORM SYSTEM THAT WORKS

Although the public policy issues related to ED overcrowding appear to be almost insurmountable, there are model programs around the country which prove that reform is possible. For almost twenty years, Minnesota has been working to control emergency department use and address many of the issues which Drs. Lynn, McDermott and Lumpkin raise. At the conference, Nancy McMorran, Supervisor of Pharmacy and Health Services for

the Minnesota Department of Human Services, with Christine Reisdorf and Elizabeth Backe, reviewed the history of the Minnesota initiative and reported on its challenges and successes.

When Medicaid began in 1974 in Minnesota, it was accompanied by a number of unanticipated problems for emergency departments throughout the state. Public assistance clients began to use EDs at rates dramatically higher than those of private payers. This caused ED costs to rise in similar fashion.

Coming up with an appropriate reimbursement schedule proved to be a major challenge for the state. At first hospitals were paid in full for their services. When that proved to be too costly, an alternative reimbursement plan was developed, but that was discovered to be grossly unfair to hospital providers. Most recently, the state has instituted a Minnesota-only procedure coding system for the fee-for-service clients. The impetus for change has been twofold--to pay providers for utilization of their resources and to assure recipients access to care.

The present coding system required legislative approval. Initially it met with great opposition, from hospitals who found the procedures too cumbersome and the payments too small, from recipients who believed it would be too constricting, from health plans and members of the general public who recoiled at the concept. It was, however, initiated in 1987.

The coding system was followed by a plan to eliminate unnecessary ED visits. One aspect of the plan is the telephone triage line on which nurses assess the severity of the callers' conditions and make referrals to appropriate care facilities. Distinction is made between emergency, urgent and nonurgent care. Periodic reviews identify those who under-and over-use the system and then assign them to health care advisors. By 1995 Minnesota expects that 50 percent of Medicaid eligibles will be enrolled in this prepaid managed care plan.

The plan is still being refined. Problems with payment codes and fees have not been entirely resolved. Not all agree with or like the plan's definition of "emergency." Patient accountability has not yet been achieved. There are savings as a result of the new coding, but they are not yet at expected levels because urgent and non-urgent care are being billed as emergency care. Minnesota is considering moving to an Ambulatory Payment Groups (APG) method of payment in which there is closer concordance between resources used and payments. Yet, overall the scheme is working. It provides proof that systemic reform is possible, and it provides examples of the sorts of implementation problems which accompany reform.

SUMMARY OF PUBLIC POLICY ISSUES

Health care reform offers promise, but it may not turn out to be quite what we expected. It is probable that it will improve circumstances within most EDs, but we must unveil its potential liabilities and find ways to address them if benefits are to be realized. At the October 1993 Conference sponsored by the Institute for Metropolitan Affairs, both the promise of reform and the potential impediments to its success were discussed. Key points related to public policy were:

- Reduction in ED overcrowding will not be achieved until a system of easily accessible 24-hour-a-day primary care or primary care information is available for all. Without suitable primary care in low income neighborhoods, patients will still come to the ED no matter what the price system. The ED has to be a major part of dialog on national heal reform.

- Discussions of health care accessibility must include attention to such factors as transportation and convenience.

- Built into any plan must be incentives for cost containment. Attention must be given to issues of wasteful or unreasonable care, duplication of resources and rationing criteria. Ways must be found to encourage providers, insurers and patients to be fiscally accountable. Usage can't be isolated from real costs.

- Equitable reimbursement scales are necessary.

- In discussions of potential reform strategies, ED cost assessments must be broadened. Projections based only on fees aren't realistic. Global costs which include overhead are more realistic.

- Ways must be found to encourage medical students to specialize in family practice or primary care rather than in specialties in which supply exceeds demand.

- Widespread public education about the importance of immunization is needed as well as the delivery system which will provide it.

- Review of legislative mandates on the state level is necessary.

OPERATIONAL ISSUES: ADDRESSING CLASSICAL OVERCROWDING

Public policy is one of the two dimensions of the ED crisis. The other concerns current hospital practices and procedures which contribute to the overcrowding problem. Hospitals have little or no control over the number of nonemergent patient who present at the ED, but they can reduce the effect which this overload has on ED operations by revamping their processes. For instance, they could establish alternative care facilities. Adjunct facilities to complement the true emergency facilities are needed. Hospitals can also take powerful measures to address the structural and/or bureaucratic impediments which slow down the treatment and discharge of outpatients and the transfer of the admitted patient from the ED to an inpatient bed.

Conference presenters reported on strategies which their hospitals have taken or considered to alleviate the problem of overcrowding. These strategies have been devised for 1) the ED and 2) other hospital floors and departments. Many of these strategies were mentioned in the preceding assessment, which have been devised for hospital floors and emergency departments. Early analyses suggest that their impact can be significant. Further study and experimentation are needed as is the willingness of hospital personnel to adopt relevant

structural and protocol changes. Barriers to change are, of course, cost, space limitations, battles of fiefdom, and that general resistance to alter the status quo.

STREAMLINING EMERGENCY DEPARTMENT PRACTICES

Conferees suggested that the first step an ED must take if it wishes to improve the way it operates, is to assess what it does. This reinforces the recommendations which appear in the assessment section of this document. To do this the ED must create extensive documentation of its activities. Change-of-shift reports should summarize the number admitted, number in ED, number in the waiting room, and total triaged. Assessment records should include time of: patient registration, initiation of treatment, if and when an admission decision is made, location of an in-patient bed, and transfer to a room. Assessment of this information will reveal where the bottlenecks are and provide a guide for improvement. The case study from Edward Hospital in Naperville, Illinois, which appears later in this document illustrates the effectiveness of evaluations of this sort.

The conferees also encouraged ED management to review the manner in which they use nurses. Cross training ED nursing staff has been very effective in increasing the capacity for service. Marilyn Rice of the Emergency Nurses Association and Maureen Scahill, Nurse Practitioner in the Emergency Department of Strong Memorial Hospital at the University of Rochester Medical Center in New York suggest that reconsideration be given to the role of the emergency nurse practitioner. As a highly trained specialist with exceptional skills in primary care, the nurse practitioner can make an enormous impact in the ED -- reducing waiting times for patients and administering quality care in economical fashion. Nurse practitioners can run nursing-managed clinics. Howard Nochumson, Executive Director of the Washington Square Health Foundation, strongly supports the nursing-managed clinic which he believes has the potential to change the delivery of emergency services. Unfortunately, there are still not enough training centers for nurse practitioners, and it is not unusual for those who are trained to run into problems gaining clinical privileges. This issue too should be part of health reform discussions.

As was noted earlier, better ED decision making is possible where there is an observational unit within the ED. For patients with certain symptoms, short stays in the observational unit can lead to more precise diagnoses and can avoid unnecessary and costly admissions. Better evaluation and assignment, particularly for cases of asthma, drug misuse and chest pain can be achieved in an observational unit. Here patients who need to be stabilized but who may not require hospitalization can be observed for periods as long as 24 hours.

Changing the operations of the nation's EDs to maximize their efficiency is not an easy process. We all resist change, and institutional change is usually more difficult to bring about than personal change. Yet change is possible when the will is there. A number of ED's have significantly decreased waiting times, increased efficiencies and increased patient satisfaction by redesigning the manner in which they operate.

EDWARD HOSPITAL: AN ED CASE STUDY

Edward Hospital in Naperville, Illinois, provides an excellent case study of ED re-engineering. According to Darcy Egging, Director of Emergency Room Services at Edward, the administration decided to take steps to streamline ED operations and reduce the level of frustration experienced by patients and staff. An interdepartmental team was formed to find a better system. It included the Medical Director, the VP of Nursing, the VP of Human Resources, The Director and Manager of the ED, two ED physicians, representative ED nurses and technicians from each shift, and representatives from various hospital departments as they were needed.

The interdepartmental team worked for five months to develop the concepts and put them into practice. During the first three months the team assessed existing ED operations, patient load, and relationship with other hospital departments. The group determined the cycle of patient visits and developed flow charts to show patient progress through the system, from entry to discharge or hospital admission. Their survey verified much of what they had intuitively sensed. The ED at Edward wasn't working as they would like. It is true that patient numbers were increasing, but there were additional factors related to the problems. The system was unnecessarily complicated and not user friendly. It had too many steps, too much waiting time at each step and too little communication with the patients. It was clear that there were reasons for the frustration which prevailed in the ED.

With that assessment in hand, the team began the re-engineering process. Team members realized that more effective collaboration between the ED and other hospital departments was needed. It was clear that the ED staffing patterns were not finely tuned to the daily flow of patients through the ED. It was recognized that the ED would be far more efficient if staff were cross trained and had at its disposal more powerful computer systems.

Over a period of six months, they implemented change. It was not easy. Mind sets had to be modified. . . from "Give us more help!" to "How can we do it better?" Doing it better was in some measure a matter of reorganizing existing staff. Careful documentation of patient load and process made it clear that more technicians were needed in the ED and not as many in other departments. It was also evident that there was a better system of deployment for ED nurses. A stair-step shift pattern was adopted to make sure that high staffing levels were maintained during predictable periods of high patient volume. These changes didn't affect the budget, but their effect on staff was anything but neutral.

Staff antagonism was further aroused when cross-training classes began. There was strong opposition to learning new skills that some workers saw to be the responsibility of others. But the classes went on, and certain therapies and diagnostic procedures were learned by all. Initial resistance to the change was intense. Few wanted it. Most complained about it.

By persistent effort and by keeping the players informed each step of the way, the team was able to overcome the initial staff resistance. By the third month of implementation 70 percent of the staff indicated on questionnaires their support of the new system.

The team learned a great deal along the way. Team members found that the process required the cooperation of many more people than they had anticipated. The team also found that it had to make special efforts to gain the physician support which was critical to success.

Evaluation has become central to the ongoing improvement process. Quarterly meetings guarantee further refinements of the system. The most recent improvement has been the development of a fast track system to handle common complaints presented by non-urgent patients. According to the assessments, these were the patients who had been subject to the longest waits.

The re-engineered Edward Hospital ED is now a more efficient operation. Evaluations reveal that patients remain there an average of 39 minutes less than they did before the changes. From the time they walk in until they leave the ED, the pace is faster. There are decreased times for triage, onset of testing and treatment. Staff is learning that the new system works. Most importantly, patient satisfaction has increased.

STREAMLINING HOSPITAL PRACTICES

Dr. Stephan Lynn and Dr. Stanley Zydlo, Jr., Chief of the Emergency Department at Northwest Community Hospital in Arlington Heights, Illinois, revisited many of the recommendations for addressing the hospital issues which contribute to ED overcrowding but over which the ED has no control. All involve better communication between the ED and other departments within the hospital and all demand a willingness on the part of hospital staff to adjust their traditional concepts.

They report that the problem of bottlenecks caused by inability to find an inpatient bed for an admitted ED patient is endemic. There are admissions delays in half of all urban hospitals and three-quarters of all large hospitals. One third of the nation's hospitals report unseemly delays in transferring admitted patients to inpatient beds. Dr. Stephan Lynn raised many of the issues which were reported earlier in this document. Transfer delay has been exacerbated by the reduction in overall beds available due to closure of hospitals, conversion of beds to non DRG use, and by increases in AIDS, drug-related and elderly patients. He and Dr. Stanley Zydlo agree that hospitals can make operational changes which would expedite moving ED patients to an inpatient bed. They suggest that it is possible to:

- Revamp the system for admissions from EDs. Assign a physician to make rational admissions decisions directly from the ED. Provide inpatient physician care for admitted patients. Create holding areas in EDs where admitted patients can be cared for until a room is ready for them. Design better systems of communication between hospital floors and EDs. Make sure the ED has full information on discharges and knows when beds become empty. Create flexible bed designations so that EDs can transfer admitted patients expeditiously. Beds can be placed in halls, lounges, temporarily closed units, and as extras in single rooms. Institute a 30-minute rule which demands that patients are out of the ED within 30 minutes from the time the admissions office announces that a bed is available.

- Create new mechanisms for expediting discharges so that beds become available more quickly. The concept of a discharge lounge makes sense. Provide a comfortable waiting area for those who are ready to leave the hospital but can't be picked up until later in the day. Put in place a system of early dismissals when the hospital population reaches a dangerously high level. Floor nurses can survey the floor, noting the condition of patients scheduled for next-day discharge and then alert the attending physician who can make arrangements for immediate discharge if it is medically possible.

The hospital can take other measures to increase their ED's capacity to provide care. Services can be focused within an ED, especially if it has specialized staff assigned to it. The ED would be more efficient if it had its own mini-lab, its own phlebotomists and 24-hour access to catheterization and stress test services.

Mechanisms can be designed to better integrate the ED within the whole hospital structure. These might include establishing a multi-department team or management committee to coordinate the ED system for the hospital, assess its needs and funnel resources to it accordingly. In recent years, there has been a significant increase in the demand for up-front ED services, but there has been no concurrent flow of financial resources to the ED.

And, of course, the hospital can create alternative care facilities for people who don't really need hospitalization but do require some care. First among these is a primary care center. Cook County and Baltimore hospitals have off-site clinics where they can link Medicaid recipients to primary care. Dallas has a network of clinics. In addition to making these clinics available to low-income patients, efforts must be made to encourage private doctors to send their patients to alternative facilities than the ED. Too many physicians send patients to EDs because there a full one-stop work-up can be obtained.

CONCLUSION

The emergency department is health care's early warning system. Now, almost twenty years after its alarm bells began clanging, the nation is taking note, and serious health care reform discussions have begun. Dr. Richard Krieg, Executive Director of the Institute for Metropolitan Affairs, reminds us that EDs have been compelled to cover for the myriad deficiencies of an increasingly costly and increasingly inadequate health system. EDs have had thrust upon them the responsibility of providing primary care to the uninsured and Medicaid beneficiaries, a job for which they are not equipped and which they cannot carry out in a manner which serves the best long-term interests of the patient or the nation. If they continue to serve in this capacity, they will compromise their primary mission--to provide high quality, life-saving care to anyone who requires it.

The Emergency Department is a critical component in the nation's overall health system. No discussion of health care reform is complete unless it gives appropriate attention to the ED. Discussions begun on a national level must filter down to the communities where complementary policy assessments must be inaugurated. Attention to policy issues must be complemented by attention to hospital procedures and communications systems. The matrix which follows is designed to facilitate these efforts.

FOOTNOTES

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Strategies for Decreasing Inappropriate Emergency Department Use

Strategy	Description	Efficacy	Start-up	Impact	Duration	Expense	Organizational Feasibility	Byproducts	Incentives	Regulatory Issues
PREVENTION AND COMMUNITY EDUCATION									Yes/No	
Education Campaign										
Content: When to use ED-911 system. Importance of having primary care provider. Referral resources for pc.	Mass Media pub. service announcements brochures; posters; Counseling @ pt. of service Training of providers Development of community referral list.	Focused, pertinent; necessary ground work for other strategies; Community "penetration" can be effective with both grass-roots and mass media effort working together. Provider outreach and training is required.	6-12 mos.	18-24 mos. +	Ongoing; required updating.	Intense effort requiring quick results is very $; slower penetration and demonstration of the community based model might be done in several communities for < $250,000.	High	Can create more demand than available capacity; overall should increase use of primary care.	Useful to change human behavior; work into scheme; agencies may not require.	
Targets: CDOH Clinics	All of the above	Needs to be linked to ED linkage coordinators and follow-up from ED; CDOH clients should carry identifiable clinic cards; Needs to have on call 24 hr. capability to assist patients in avoiding ED for non-urgent problems that can be taken care of morning after.								
Private Practitioners (free standing and in hospital)	Brochures, posters, one-on-one counseling. Training through mass mailings from Medical Society, IDPA and other.	Needs 24 hr. on call capability; see above.					Potentially low level of participation; outreach to private MDs is invariably less hands on.		Yes tied to reimbursement or licensure.	IDPA/insurance or state licensure for practice
WIC-Public Aid offices-FWF Headstarts	All of the above Contact Lead Agencies	Needs case management capabilities for referral to pc providers in a fashion like Medicaid Partnership.								
Schools LACs School Nurses and Clinics	Brochures and posters; Contact Board of Ed. to access schools; Contact LACs to speak @ meetings; Use LAC members to continue to promote idea among parents/students, train/orient nurses/clinics.	Tie to referral system.					Accessing schools and making this a priority for them = low feasibility. Not enough school nurses to make major difference.	Begins to foster linkage between schools and health sector/issues.		

Strategy	Description	Efficacy	Start-up	Impact	Duration	Expense	Organizational Feasibility	Byproducts	Incentives	Regulatory Issues
Police Department DHS Dispatch operators/ personnel.	Training of police and DHS dispatch workers a priority. Training needs to focus on appropriate use but also on appropriate assessment of urgent, non-urgent and emergency.	Linked to specific referral protocol and available sites in each local community that can back up/ replace ED as the source of non-urgent care.					Difficult to train non-clinical police/dispatchers to appropriately triage. Primary care facilities may not be equipped to take people off street and provide intensive mental health support.			
Constituency Organizations: Community Organizations AARP League of Women Voters Churches	Local media materials and local outreach to groups/ chapters; Lend credibility to campaign by sponsoring/promoting; Train as to issue/remedy; Act as advocates and provide counseling and referrals.	Needs referral list/resources. These are powerful groups vis a vis local constituencies. Involvement is key.								
CHA	See schools (above), same strategies.	Needs linkage to case management on site or close ties to such agencies; Need linkage to outstationing (see below).								
Libraries, post office, grocery store, currency exchange, banks	Local media materials distributed	Broadest component of overall educational strategy with the greatest visibility.								
TV, Radio and Newspapers	Develop media partners who will contribute to effort & offer high volume of media time. Ad agencies approached to be partners as needed. Editorial boards contacted & editorials written; PSAs and news shorts are most effective.						ED issues make "good news"/commitments may be easy to get.		Partnership has to be declared for promotion of corporate image and allocation of funds to effort.	
Mandated 24 hr. call for primary physicians as condition of third party reimbursement (Medicaid & private)		Low to moderate.	12 mos. negotiation w/ 3rd parties	24 mos.	Ongoing w/ enforcement	Moderate for providers in solo practice	Resistance from Med. Society, MDs and 3rd parties; enforcement poses problems; achievement high as most MDs have arrangements.			

Strategy	Description	Efficacy	Start-up	Impact	Duration	Expense	Organizational Feasibility	Byproducts	Incentives	Regulatory Issues
ACCESS AND LINKAGE TO PRIMARY CARE STRATEGIES										
Case Management Strategy										
Targets: CDOH clinics and NHCs WIC-Public Aid offices-FWFs Headstarts CHAs Community Agents	Social and public health agencies identify people without usual source of care/or need of primary care; directly make appointments/advocate until clients are connected to primary source.	High to moderate Volume of people affected needs to be great enough to yield impact. Needs to be tied to referral or hotline. Service capacity has to be available.	2-6 mos. after orientation	24 mos.	Ongoing	Cents	Providers must create partnerships. Linking medical and social organizations can be tough and labor intensive. Very feasible, however. Capacity shortages can compound linkage.			
Medicaid Partnership Strategy	Reimbursements-linked enrollment of Medicaid eligibles into a linked case management primary care system with assigned primary care providers who function as gatekeepers.	Unknown Objective is to reduce ED use, increase primary care use, decrease admissions and overall reduced health care costs.	12 mos.	24 mos.++	Ongoing after demonstrated effectiveness.	Costly upfront; may be offset by long term cost savings.	High with commitment of all participants; ambitious networking required.	Creates an effective ambulatory care system and achieves sensitivity among health providers and payors.	Yes, staff or health financing tied in.	Medicaid waivers required.
Community Advocacy Strategy	Trains and utilizes community lay workers to act as casefinders and managers (see above).	Needs linkage to strong case management strategy (see above).								
Outstationing of Health Providers *Targets:* FWFs CHA Senior Housing and congregate living	Nurse practitioners set up health assess./triage capacity in high traffic/high need areas. Provide health promotion/ prevention services. Provides immediate "hands-on" care for very high risk population; facilitates effective referral with transfer of records; takes burden of appointment making and linkage off of social service case managers/outreach workers. Provides risk assessment, walk-in capacity and direct linkage after appropriate triage in very high risk populations (same as above).	High Needs connection to specific primary care providers.	6-12 mos. based on space, linkage issues, recruitment	18-24 mos.	ongoing	Moderate	High; some political barriers exist related to confusing this as an alternative to comprehensive primary care as opposed to merely a linkage strategy.	Provides immunization, lead testing and other public health initiatives to a population at risk.		Practice act of mid-level nurse providers may need to be re-examined.

Strategy	Description	Efficacy	Start-up	Impact	Duration	Expense	Organizational Feasibility	Byproducts	Incentives	Regulatory Issues
Mobile Units	Mobile van equipped by City or County providing immediate "hands on" care for high risk populations or at times of epidemic conditions, such as flu outbreaks. Provide linkage and referral into primary care.	Moderate More effective at times of epidemic. Needs connection to local primary care providers.	24 mos.	Immediate	Ongoing	$	High	Same as outstationing		
Primary Care Hotline 24 Hr.	Neighborhood or region based hotlines with latest info. on available openings/capacity; referrals or switchhooks to primary care providers;update daily; appointment making on line can be centralized for all regional providers.	High. All targeted agencies would benefit.	8-12 mos.	Immediate	Ongoing	Moderate to $ depending on scope and technical sophistication.	Requires high level of cooperation, but feasibility is high.	Assists in developng identified regional service networks; up-to-date, dynamic database on capacity/needs/ shortages demand creates powerful planning database.	Natural incentives to expand market share by joining hotline; competitive pressures may require incentives.	
PRIMARY CARE CAPACITY DEVELOPMENT STRATEGIES										
Planning Regional	System wide; includes hospital and ambulatory primary care, much like perinatal network regionalization and goes beyond trauma care. Looks at bed and ambulance capacity, ED use and allocation of funds for additional services based on need.	High for all types of planning	1-3 mos to get groups together	Depends on level of implem.	Planning phase: 8 mos.	Cents	Regional planning is high profile; lage scale plans can run into political turf issues and require large scale capitalization for implementation.	More rational allocation of scant resources; paves the way for planning for a national health system.	Will need $ for implementation	Legislative mandate to set up system for ED (vs. trauma) planning would be helpful.
Intra-hospital	Planning within hospital to relieve overcrowding of ED; see section below on Hospital based ED/Ambulatory Care Strategies.						Easy to do, but could face opposition from under-utilized depts.			
Inter-hospital	Planning among hospitals; possible strategies suggest hotline to determine status of ED capacity at any given time, shared staff and continuing education.						Could be difficult, but feasible; in self interest of most hospitals; reps. come together in several forums on related issues.			
Community	Similar to regional, but defined area is a geographic community. All providers,hospital and primary care assess ED status and plan how to relieve overcrowding.	Community planning tied to regional authority or public health dept. is most realistic to relieve ED overcrowding.					Difficult, but possible. Faces problems similar to regional; overarching interests of "community good" unite and possible to define turf.	Community planning group would become Community Health Board.		

Strategy	Description	Efficacy	Start-up	Impact	Duration	Expense	Organizational Feasibility	Byproducts	Incentives	Regulatory Issues
NHCs. FQHCSs enhanced by NHSC recruits	New starts identified in system-wide and community based planning. Expansion of existing centers based on need.	Need to reduce "contract buy-outs" of Corps MDs and extra incentives for least desirable areas. Need to encourage staying in corps practice site as career opportunity.	24-36 mos.	36-60 mos.	Ongoing	$ for new starts $ for better salaries and more clinicians	High with political commitment and $	Improving community based infrastructure for primary care upon which many other strategies depend. Can spark a great deal of innovation.	Yes, grants and reimbursements, incentives needed to improve effectiveness of Corps.	Legislation in force but more dollars required.
Public Sector Services	Increase productivity, recruit mid-level practitioners and more MDs; increase partnerships, contracts and affiliations for hospitalization; approve more starts for both comprehensive service and categorical (i.e. MCH stations, Family Planning, Healthy Kids) based on need in community.	Highly effective in meeting demand.	6 mos. +	12-24 mos.	Ongoing	$	Public sector "look alikes" (FQHC) eligible for Medicaid encounter rates.		Reimbursement & salaries	Need legislative and bond issue initiatives.
Private MDs delivering Charity Care	Allocation of free care slots to build additional capacity among existing practices; number of slots per practice is small and presumably affordable; collectively the capacity added is great.	Low Requires Medical Society push and major effort. Physicians not even adequately available to communities of greatest need.	12 mos.	36 mos.	Ongoing	Cheap	Low (see efficacy)		Yes Professional recognition; Malpractice caps	May require legislation for malpractice caps and reform of tort.
Urgi-centers	Evening and weekend hours offered at specific sites and/at times of known peak ED use. Used as a referral resource for overcrowding.	High Responds to need for after hours walk-in care.	6-12 mos.	Immediate	Ongoing	Moderate to $	High feasibility; attracts capital as is known to be profitable for some populations.	Free standing Urgi-centers not linked to comprehensive primary care may not deliver highest quality of continuous, comprehensive, preventive service.		
Mega-Clinics	High tech ambulatory diagnosis, surgical and day care or birthing center capacity which reduces demand for hospitalization and demand for care in general. Program components vary with community and respond to community based planning.	Unknown	36 mos.	immediate	ongoing	$	Varies depending on hospital competition, surplus and demand.	Could duplicate already existing secondary level service & make hospital even less competitive; this may be productive in long run, but would have certain short term negative, dislocation effects.		May require some regulatory/ licensure support.
Worksite Health Services (for non work-related problems)	Promote use of/develop worksite resources for walk-in, low acuity/ acute problems to reduce need for care after work. Couple with health promotion and education about appropriate use of Services and need for usual source of care.	Moderate-high Would respond to workers need to not leave work to seek primary care and thereby would reduce after hour demand.	6-24 mos.	24 mos.	Ongoing	$ for worksite starts would be specifically for small businesses; already available at large but perhaps not always used.	Non-stigmatize worksite as reliable source of care.	High feasibility, but workers may not wish to use employer-based programs or even take time off of assigned duties. Need also to change employer attitude about time off during day for primary care.	$ and regulation related to mandated health benefits for workers.	May require some regulatory support to make widespread. Would tie primary care to health promotion at worksite & develop convenient, accessible resource.

Strategy	Description	Efficacy	Start-up	Impact	Duration	Expense	Organizational Feasibility	Byproducts	Incentives	Regulatory Issues
HOSPITAL BASED ED AND AMBULATORY STRATEGIES										
Aggressive Non-MD triage at point of entry	RN, NP or PA greets at door, hx, checklist/vital signs taken to determine acuity as to need for fast track triage or referral.	High, directly attends to problem.	1-2 mos.	Immediate	Ongoing	Cents	High	Education of patient that ED is not appropriate for non-urgent care.		
Fast track Program Hospital Based Model	Develops adjacent place to see walk-in pts. triaged	Very effective: but must link to ongoing primary care.	4-6 mos.	Immediate	Ongoing	Moderate	High			
Joint Venture Model	Joint venture includes collaborative effort with a primary care provider who will either staff all or part of a program even if on hospital premises to ensure effective link to triage.	Immediate transition to primary care provider may produce better compliance and linkage.					Joint ventures may be hard to execute re: cooperation required; is difficult to pick a single primary care provider w/enough capacity.			
Low acuity cases referred to neighborhood provider		Delays receipt of care-high probability of non-compliance								
ED based linkage coordinator	Refers all ED visitors to primary care for ongoing follow-up. Requires resource inventory and aggressive follow-up/tracking.	Moderate: patient compliance may be low in keeping follow-up appointment, a lot of work may go into the referral process for potentially low yield.	1 mo.	Immediate	Ongoing	Cents	High	Primary care capacity is needed.		
Mobile Unit	Unit to locate EDs that need relief from non-emergency caseload to avert crisis overcrowding.	High, provides immediate short term relief, but by itself does not address system issues unless linked to referral into primary care.	3-6 mos.	Immediate	Ongoing or until system issues are addressed	Moderate to $	High, would give sponsors high visibility/good image	May install planning for overall system by providing short term relief. If not linked to increased use of primary care providers, increased benefits from having a continuous source (prevention of overcrowding and overall health status improvements) are reduced (same as above).		
Use of PPO/IPA Networks HMO facilities or Hospital Primary Care physicians	Networks of providers in vicinity can be approached through IPA/PPO org. to accommodate appointment availability for non-emergent ED walk-in pt. despite the fact that patient is not insured by Network plans. This plan "kicks in" in overcrowding conditions. Patients taken in special van/ shuttle.	Same as above. Should also be linked into referral for ongoing primary care. This will be more difficult to organize with multiple providers unless hotline available.	12 mos.	Immediate	Same as above	Cents to moderate	Low: hard to implement and requires high level of cooperation or high incentives.		Yes, from public sector or hospital	Needs state regulation from insurance authority or hospital may have to stipulate this as a requirement of staff privilege for primary care providers.

Strategy	Description	Efficacy	Start-up	Impact	Duration	Expense	Organizational Feasibility	Byproducts	Incentives	Regulatory Issues
Ambulance Transport from ED	Patients being held in ED waiting for bed will be transported to nearest hospital bed available and appropriate to need.	Moderate to high	12 mos.	Immediate	Same as above	Moderate	High, requires coordinated system.	May lead to full utilization of resources, but does not relocate resources to areas of highest need.	Yes	May require legislation such as Perinatal rules and regulations or Trauma.
Separate Admitting/Holding Area for Chronically Ill (ambulatory & ambulance)	Triage out of ED chronically ill patient who needs hospitalization; triage out patients who need stabilization/education, i.e. elderly dehydrated, ill or with flu; alcoholics with DTs, HIV patients needing beds.	High	6 mos.	Immediate	Ongoing	Moderate (space planning/ reinovation)	High, may encounter space constraints in finding area for patient and ambulance entry.	Negative effects on consumers and providers, especially in community areas w/out adequate primary care providers. "Bad" calls on part of gatekeeper can lead to liability cases and ineffective delays in care.		
Insurance Mechanisms: Medicaid Private HMO/PPO	Prior authorization for ED use. High Copayments for ED use. For non-acute care. Membership education Prior stipulation of non-payment for ED use for identified conditions.	High	3 mos. 3 mos. 3 mos. 12 mos.	Immediate	Ongoing	Cents	High-already in effect in many health plans, but requires enrollment in primary care system like Medicaid partnership or HMO/PPO Providers and consumer caught in cross fire; providers will lobby vigorously against non-payment option.			
INSTITUTIONAL CAPACITY OPTIONS										
Expand chronic care beds adjacent or within hospital to provide chronic care capacity and free up acute care beds. Adjacent facility; Link with Nursing Home Relocation beds within hospital	Self-explanatory	High, if need for acute care beds is source of ED overcrowding	6-24 mos.	Immediate	Ongoing	$	Hospital politics, space constraints may make this a difficult but still feasible option. Working with a nonadjacent nursing home may not provide the required medical coverage and would be inconvient for MDs.	More rational use of resources/cost effective. Hospitals diversifying into a new line of business.	$ incentives/ grants would assist in making this change.	May need to comply with regulations on chronic care facilities or SNF if solution not within hospital.
Reallocate beds to High Need Inpatient Services		Moderate to high; patients admitted out of ED in a more timely manner	6 mos	Immediate	Ongoing	Variable, cost effective in long term	Political "turfism"	Staffing issues may necessitate retraining/recruitment of nurses.	Yes, may be needed for departments that lose beds.	
Expand ICU capacity		High	1-2 years	Immediate	Ongoing	$	Space constraints			
Computer linked assessment of Bed Availability	Centralized ED hotline in touch with available capacity and linked to 911 system.	High	6-12 mos.	Immediate	Ongoing	Moderate	Feasible, but requires cooperation and level of sophistication.	Efficient and appropriate use of excess capacity; full use of beds = more revenue. Does not assist in building capacity where needed. Raises nursing morale & enables higher quality of patient care.		

Strategy	Description	Efficacy	Start-up	Impact	Duration	Expense	Organizational Feasibility	Byproducts	Incentives	Regulatory Issues
Nurse recruitment		High								
Physician Managed Admission System	MDs faciliate discharge or borrow bed if beds are available.	High	12 mos.	12 mos.	Ongoing	$	Can be done if commitment is in place; difficult to alter environment, working conditions and salaries to make hospital more attractive.			
Bed Control/Inventory Strategies Methods Admittance & Discharge Procedures Improved communications between ED nurses and critical care units;	Creates efficiencies by quicker	All these strategies have been tried and work differently in different hospitals depending on hospital "culture." Track record is mixed as most ED nurses seem unsatisfied with all of these as they put Admitting office or Nursing in middle of a physician driven problem.	3-6 mos.	Immediate	Ongoing	Cents	Feasible in all institutions but needs fit with organizational culture and history.		Would help	
Pre-admission work-up and bed acquisition by ED nurses	and coordinated pre-admission work-up and advocacy by ED nurse (as part of their established role) to access a bed.	However, many of these strategies work for periods of time and require periodic review or change.								
Nurse "COP" programs	Review all potential discharges & facilitate/lif barriers affecting discharge delays.									
Special discharge lounges	Move patients waiting for final discharge orders from rooms to special waiting areas.									
Code Bypass	Establish hospital wide communication system that puts all units on preventive notice that ED is approaching diversion/bypass status; beds need STAT clearance.	Might be a very effective way to elicit a coordinated, coooperative response throughout hospital; should be tested; Would boost morale of ED staff & resolve difficult communications. Very feasible and being tried in several hospitals.					Must be tested; organizational feasibility unknown.	Moral booster for ED staff; facilitates coordination of hospital systems & might lessen conflicts related to ED admission.	Morale booster for ED staff facilitates coordination of hospital systems and migh resolve intense conflict now related to ED admissions	
Observation Beds in ED	Hold patients up to 24 hours who require observation/stabilization but do not necessarily require inpatient admission.					$	Space a potential barrier.			

Strategy	Description	Efficacy	Start-up	Impact	Duration	Expense	Organizational Feasibility	Byproducts	Incentives	Regulatory Issues
MAJOR FINANCE STRATEGIES										
Publically subsidized capital expansion projects	Develop contracts and grants to develop bed capacity where needed. Generate funds through public initiatives (bonds) or increased reimbursement schemes.	High, must be linked to system planning.	12-36 mos.	12-36 mos.	Ongoing	$	Requires public mandate tax support; competition will be high for dollars.	More rational/adequate distribution of capacity.	Inherent in plan	Legislation/referendums required. Legislation, referendum
User fees, special tax support	Beer taxes, speeding ticket revenue, etc.	High and educational message is clear.	12-24 mos.	Immediate	Ongoing	$	Governments may have other priorities for use of special fee/taxes, i.e. school, balancing existing budgets. Tax payers may disapprove.	Educational messages		Legislation
Financial Support for Trauma Care	Addresses all of ED use and overcrowding by granting funds to institutions to meet uneven obligations in trauma and general ED care.	High	12-24 mos.	12 mos.	Ongoing	$	Politically difficult to get such initiatives with tight budgets; other priorities for spending on the "table."	Makes a more rational system.		
Expand Medicaid to maximum allowable limits		Moderate, would reduce number of uninsured and in theory enable greater use of primary care; but insurance does not directly affect resource supply or human behavior.	3-12 mos.	Incremental	Ongoing; stop-gap until National Health Reform.	$, cost effective in long term given high risk nature of enrollees.	Unlikely that states will increase their budgets immediately; however, federal mandates are moving in this direction. Depends on state/federal politics and tight budgest and hospital lobby.	Provides overall access to primary care; removes financial barriers for some; stepping stone for national program; eases institutional burdens.		Legislation
National Health Reform or Universal Health Insurance		High, reduces known financial barriers to primary care which causes some ED use. (EDs are only care free at point of service offered by the private sector.) Needs adequate 24-hour availability/ access to care to be maximally effective.	5-8 years	Incremental	Ongoing	$, cost effective in long run; can foster use of less expensive, earlier and appropriate care. May not require substantial new allocations for health except for long term care, but would require reallocation of effort ($) to primary care and prevention, so that system is more balanced than at present.	"Looking better"	Multiple: More control over dollars; standardizing of benefits; fosters development adequate capacity if tied to community based planning; benefits high risk communities; alleviates disproportionate burden on inner city, rural & public hospitals as lifts major barriers to care.	Incentives for appropriate use must be structured into plan.	

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