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Estimating the Future of Health Care at the Community Level

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Abstract

Developments in health care in the United States are changing the delivery of services for providers and payors. This study focused on inpatient hospital discharges in the Syracuse hospitals and other services. It demonstrated that, during the past five years, numbers of inpatient adult medicine discharges had increased while adult surgery discharges had declined. This information suggested that adult medicine discharges could be expected to increase and approach levels of five years ago. It also suggested adult surgery discharges could be expected to remain at previous levels or decline. This information indicated that the combined emergency department visits declined from 238,000 to 202,000 between 2019 and 2020, then increased from 218,000 to 228,000 visits between 2021 and 2023. These developments will probably result in greater efficiency at the community level. With a decline in numbers of inpatient beds, providers will be able to focus on the more efficient management by reducing numbers of staff as well as fewer pharmaceuticals and testing.

Keywords

Hospitals, Long Term Care, Health Care Costs

1. Introduction

Historically, health care providers in the United States have evaluated the performance of their organizations with respect to clinical and economic criteria. Many of these efforts have focused on the provision of care at the community level [1] [2].

The current state of health care evolved in the middle of the twentieth century. It evolved through assumptions developed at that time [3] [4].

Most of these efforts are related to health care providers. These organizations determined the structures of care. They have been developed at a number of le-

vels including acute hospital care, nursing homes and long-term care, as well as ambulatory care.

The future of health care will probably be based on levels of care as well as their development over time. For both providers and consumers, the future of these organizations is worth evaluating [5].

In the middle of the twentieth century, a major health care issue in the United States involved health care costs. The enactment of the Medicare program addressed the elderly, and the Medicaid program addressed the indigent, however, neither of them contained specific provisions for limiting the costs of care [6].

In order to address this issue, the federal government enacted the Prospective Payment System in 1976. This effort was based on a change in the Medicare and Medicaid systems from payments by per diem to payments by diagnoses. It was intended to focus providers on efficiency in the delivery of care. This was accomplished by reducing inpatient hospital lengths of stay [7].

In addition, the federal government enacted nationwide health planning in 1976. This program contained a number of community based initiatives designed to improve the efficiency of care at the community level by limiting resources and excess utilization [8] [9].

In the twenty-first century, health care has continued to evolve at the community level. This process has included the development of different functions for acute care, long term care and ambulatory care by providers and payors. This study includes an update concerning those functions with the future implications for the delivery of care in one community.

2. Population

This study included the development of health care and related issues in the metropolitan area of Syracuse, New York. These acute care providers include Crouse Hospital (17,309 inpatient discharges excluding well newborns, 2023); St. Joseph's Hospital Health (17,715 inpatient discharges, 2023); and Upstate University Hospital (29,967 inpatient discharges, 2023).

The Syracuse hospitals provide primary and secondary acute care services to an immediate service area with a population of approximately 600,000. They also provide tertiary services to the Central New York Health Service Area with a population of approximately 1,400,000 [10].

3. Method

This study evaluated health care utilization at the community level in the metropolitan area of Syracuse, New York. It employed recent data for major services to suggest the use and directions of care in the immediate future. The study was based on acute care including hospitals as well as long term care including nursing homes, and ambulatory care such as hospital emergency departments and outpatient surgery.

The study focused on recent utilization of health care for these services during

a five-year period. It suggested that the use of care for these services was related to a number of factors including inpatient and outpatient care.

The study focused on numbers of discharges for the combined Syracuse hospitals during the past five years because these time periods included adult medicine and adult surgery data that were closest to the present. It was assumed that this information had the greatest potential for evaluating the future delivery of health care.

Inpatient hospitalization has been an important part of health care since the twentieth century. The current health care system in the United States has been supported by public and private payors for more than fifty years. Both providers and payors have worked to control the costs of care by improving the efficiency of care.

In recent years, the impact of long term care and nursing homes, as well as increases in ambulatory care such as outpatient surgery have limited the development of inpatient services. This study demonstrated that numbers of inpatient discharges in the Syracuse hospitals declined between 2019 and 2024. The data suggested that these reductions will stabilize in the future but will not increase.

Most of the reductions have been associated with orthopedic surgery and other surgeries that have resulted from the movement of patients with low severity of illness to ambulatory care providers. Reductions in numbers of adult medicine discharges have developed at a lower rate.

The study also identified the average daily census of the combined Syracuse hospitals between 2019 and 2023. This information was based on both the inpatient discharges and the inpatient mean lengths of stay for the five-year period. These hospitalization data made it possible to review the full range of hospitalization in addition to the specific indicators.

In addition to this information, the study included inpatient discharges by severity of illness for adult medicine and adult surgery between 2019 and 2023. This information was based on inpatient utilization for the combined Syracuse hospitals. This information included data for both hospital discharges and mean lengths of stay. This information was important because it included the case mix of the data for the two major services. The study also included data for hospital emergency departments. In the Syracuse hospitals, recent utilization has placed a priority on ambulatory care.

In the Syracuse hospitals, a number of populations have been identified as candidates for ambulatory care. Emergency departments have been an important source because they can involve a wide range of diagnoses.

In the Syracuse hospitals, the development of emergency department staffs has become a priority because these populations have a wide range of patient care. The data in this study addressed this information by quantities and time periods with respect to individual providers.

4. Results

The first component of the analysis involved hospital discharges for adult medi-

cine and adult surgery for the combined Syracuse hospitals. Relevant data are summarized in Table 1(a) and Table 1(b).

Table 1. (a) Inpatient hospital discharges, adult medicine by month, Syracuse Hospitals, April 2019 - March 2020, April 2023 - March 2024. (b) Inpatient hospital discharges, adult surgery by month, Syracuse Hospitals, April 2019 - March 2020, April 2023 - March 2024.

(a)

	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Total
2019-2020	3154	3198	2995	3210	3115	2958	3152	2890	3037	3112	2851	2742	36,414
2023-2024	2482	2691	2646	2598	2680	2568	2725	2681	2810	2912	2674	2799	32,266
Difference	−672	−507	−349	−612	−435	−390	−427	−209	−227	−200	−177	57	−4148
Percent Difference	−21.3	−15.9	−11.7	−19.1	−14.0	−13.2	−13.5	−7.2	−7.5	−6.4	−6.2	2.1	−11.4

Adult medicine data exclude Diagnosis Related Groups concerning surgery, invasive cardiology, obstetrics, psychiatry, alcohol/substance abuse treatment, rehabilitation, and all patients aged 0 - 17 years.

(b)

	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Total
2019-2020	1617	1756	1520	1651	1687	1560	1711	1610	1552	1593	1505	1352	19,114
2023-2024	1207	1267	1211	1231	1274	1210	1251	1207	1200	1188	1137	1180	14,563
Difference	−410	−489	−309	−420	−413	−350	−460	−403	−352	−405	−368	−172	−4551
Percent Difference	−25.4	−27.8	−20.3	−25.4	−24.5	−22.4	−26.9	−25.0	−22.7	−25.4	−24.5	−12.7	−23.8

Adult surgery data exclude Diagnosis Related Groups concerning medicine, invasive cardiology, obstetrics, psychiatry, alcohol/substance abuse treatment, and all patients aged 0 - 17 years.

This information identified reductions in numbers of discharges for adult medicine and adult surgery for the Syracuse hospitals. These were the largest sources of inpatient utilization.

The first component of the study data identified numbers of these patients for the most recent twelve-month period. This information was developed for the combined Syracuse hospitals. The data were collected by the Hospital Executive Council.

Between 2019 and 2023, inpatient discharges excluding well newborns declined by 14.8 percent. The data in Table 1(a) and Table 1(b) demonstrated that this reduction amounted to 10.7 percent fewer discharges in adult medicine and 27.7 percent fewer discharges in adult surgery.

The reductions in discharges for these two services amounted to a continuation of previous developments. The rate at which adult medicine discharges declined was an increase from previous rates. The rate at which adult surgery declined was a decrease from previous rates.

The data in Table 1(a) and Table 1(b) identified this information in the context of the past five years. The data demonstrated that numbers of hospital inpa-

tient discharges have continued to change. Based on this information, it appears the adult medicine inpatient discharges may increase in the Syracuse hospitals and adult surgery discharges may continue to decline. The reduction in adult surgery discharges appears to have resulted from the movement of patients from inpatient to ambulatory settings.

The information in Table 1(a) and Table 1(b) demonstrated that there were monthly differences between inpatient discharges between the inpatient data for the Syracuse hospitals between 2019/2020 and 2023/2024. These differences varied between the two services.

During the twelve-month period, differences in adult medicine discharges ranged from a decline of 21.3 percent to an increase of 2.1 percent. This reflected increasing inpatient volume for this service. During the same twelve-month period, differences in adult surgery discharges in 2023/2024 remained approximately 24 percent lower than 2019/2020 levels.

This information suggested the adult medicine discharges could reach 2019/2020 levels. It also suggested the adult surgery levels had not increased from previous reductions.

The second component of the study included emergency department visits for the Syracuse hospitals between January 2019 and March 2024. Relevant data are summarized in Table 2.

Table 2. Emergency department visits, Syracuse hospitals by quarter by year, 2019-March 2024.

	1Q	2Q	3Q	4Q	Total
2019	60,481	60,447	58,208	59,815	238,951
2020	56,277	39,007	53,161	53,661	202,106
2021	49,018	57,093	59,447	53,128	218,686
2022	47,139	51,888	52,981	58,003	210,011
2023	53,036	56,459	59,133	59,940	228,568
2024	58,605				
Percent Difference					
2019-2023	−12.31	−6.60	1.59	0.21	−4.35
2019-2024	−3.10				

Source: Hospital Executive Council data.

Health care data for the Syracuse hospitals have demonstrated substantial increases in the amounts of ambulatory care services. This development has paralleled the growth of ambulatory care services elsewhere.

The growth of ambulatory care has developed from the interest in improving health care outcomes without inpatient hospitalization. It has also been related to improving provider efficiency by avoiding the expenses of inpatient care including intensive care.

The data in Table 2 quantified a major source of ambulatory care, hospital emergency departments. This information addressed a wide range of diagnoses.

The data indicated that numbers of emergency department visits for the combined Syracuse hospitals ranged between 228,568 and 238,951 in 2019 and 2023. In each twelve months of the study, the emergency departments generated at least 200,000 visits.

The data also indicated that numbers of emergency department visits varied among the combined hospitals. In 2023, total visits were 114,320 at Upstate University Hospital, 58,810 at Crouse Hospital, and 55,438 at St. Joseph's Hospital Health Center.

Unlike the adult medicine and adult surgery data, this material included a full range of principal diagnoses for the Syracuse hospitals. This information included patients with surgery and those without it.

In recent years, the attention of health planning on ambulatory care has increased. This has translated into greater use of hospital emergency departments to deliver and monitor care. This opportunity had the potential to support improvements in patient outcomes and efficiency of care.

In the Syracuse hospitals, the patients who were cared for in ambulatory care settings were those who did not require inpatient admissions. Addressing the needs of these patients through ambulatory care saved expenses for health care providers and payers.

Additional data collected by the Hospital Executive Council for the Syracuse Hospitals, has demonstrated that numbers of adult surgery patients at Minor severity of illness have declined in recent years. These patients are probably being discharged to ambulatory care programs.

5. Discussion

Developments in health care in the United States are changing the delivery of services for providers and payors. They have the potential for improving the outcomes and the efficiency of care. This study evaluated recent developments related to health care in the metropolitan area of Syracuse, New York.

The study focused on inpatient hospital discharges in the Syracuse hospitals and other services. It demonstrated that, during the past five years, numbers of inpatient adult medicine discharges had increased while adult surgery discharges had declined. This information suggested that adult medicine discharges could be expected to increase and approach levels of five years ago. It also suggested adult surgery discharges could be expected to remain at previous levels or decline.

The study also focused on emergency department utilization in the Syracuse hospitals. This information indicated that the combined emergency department visits declined from 238,000 to 202,000 between 2019 and 2020, then increased from 218,000 to 228,000 visits between 2021 and 2023. These data suggested that visits for the combined hospital had been relatively stable and would probably

continue to be.

In the health care system, it appeared that much of the future lies in ambulatory care. In this study, reductions in numbers of hospital inpatients, especially for adult surgery, resulted in the movement of patients to ambulatory care at the community level. Most of this development involved patients with low severity of illness whose conditions could be treated without inpatient admission.

The current state of health care in the Syracuse hospitals suggests that numbers of inpatient beds in hospitals will be consolidated. This development will result in smaller health care systems at the community level.

These developments will probably result in greater efficiency at the community level. With a decline in numbers of inpatient beds, providers will be able to focus on the more efficient management by reducing numbers of staff as well as fewer pharmaceuticals and testing. These developments can support health planning efforts at the community level. It is also possible that these efforts could support clinical efforts at the community level, such as the reduction of the corona virus and related conditions.

In addition to health care providers, these developments should benefit health care payors by reducing expensive resources. In the twenty-first century, both government and private payors have needed to address the burden of increasing costs. Health planners and providers should explore the potential for these efforts in order to improve the outcomes and efficiency of care.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

References

[1] Dentzer, S. (2011) Urgent Measures for an Old Problem. *Health Affairs*, **30**, 1626-1626. https://doi.org/10.1377/hlthaff.2011.0961

[2] Rosen, G. (1958) A History of Public Health. M.D. Publications.

[3] Hyman, H.H. (1982) Health Planning: A Systematic Approach. Aspen systems Corporation.

[4] Mustard, H.S. (1969) The Uneasy Equilibrium Public and Private Financing of Health Services in the Unites States, 1875-1965. College and University Press.

[5] Riley, G.F. (2007) Long-term Trends in the Concentration of Medicare Spending. *Health Affairs*, **26**, 808-816. https://doi.org/10.1377/hlthaff.26.3.808

[6] Gawande, A.A. (2011) The Hot Spotters: Can We Lower Costs by Giving the Neediest Patients Better Care? New Yorker.

[7] Oriole, W. (1985) The Complex Cube of Long Term Care. American Health Planning Association.

[8] Cushing, W.T. (2004) Extra Hospital Days Can Cost You Plenty. *Medical Economics*, **81**, 83.

[9] Weil, A.R. (2015) Hospital Costs and Quality. *Health Affairs*, **34**, 1263-1263. https://doi.org/10.1377/hlthaff.2015.0786

[10] Lagoe, R., Pasinski, T., Kronenberg, P., Quinn, T. and Schaengold, P. (2006) Linking Health Services at the Community Level. *Healthcare Quarterly*, **9**, 60-65. https://doi.org/10.12927/hcq..18229