
CHAPTER 5

ACUTE CARE HOSPITAL BEDS

Introduction

G.S. 131E-176(13) defines a hospital as “a public or private institution which is primarily engaged in providing to inpatients, by or under supervision of physicians, diagnostic services and therapeutic services for medical diagnosis, treatment, and care of injured, disabled, or sick persons, or rehabilitation services for the rehabilitation of injured, disabled or sick persons. The term includes all facilities licensed pursuant to G.S. 131E-77, except long-term care hospitals.”

There are 110 licensed acute care hospitals in the state. The occupancy rate for acute care beds is 60.0%. Table 5A shows that certificates of need have been issued to decrease the number of beds in some areas and increase the number of beds in other areas, resulting in a net of 769 new beds to be developed.

Definitions

An acute care hospital bed’s service area is the service area in which the bed is located. The acute care bed service areas are the single and multicounty groupings shown in Figure 5.1. See below for the delineation of service areas.

The “reporting year” is October 1 through September 30. The “current” reporting year is October 1, 2017 through September 30, 2018.

The methodology projects bed need four years beyond the current reporting year. The “current projection year” is 2022.

The “planning inventory” is the number of beds used in need determination calculations. It is the number of licensed beds as of the last day of the reporting year as submitted by the hospital, plus any new beds approved by CON that are under development as of the last day of the reporting year, minus any beds delicensed after the end of the reporting year.

A “hospital under common ownership” is a hospital that is owned by the same or a related legal entity as at least one other acute care hospital in the same service area. [All other hospitals are “single” hospitals.](#)

Changes from the Previous Plan

This chapter contains no substantive changes from the previous State Medical Facilities Plan. However, the chapter includes substantial technical edits.

Basic Principles

1. Acute care hospitals are the providers of essential health care services, one of the state’s largest employers, the largest single investment of public funds in many communities, magnets for physicians deciding where to practice, and building blocks in the economic development of their communities. North Carolina must safeguard the future of its hospitals.

Even so, it is not the state’s policy to guarantee the survival and continued operation of all the state’s hospitals, or even any one of them. In a dynamic, fast-changing environment, which is moving away from inpatient hospital services, the survival and future activities of hospitals will be a function of many factors beyond the realm of state policy.

The state can, however, facilitate the survival of its hospitals and promote the development of needed health care services, acute and non-acute, by encouraging hospitals to convert unused acute care inpatient facilities to new purposes, to collaborate with other health care providers, and to develop health care delivery networks.

2. The North Carolina Department of Health and Human Services supports the use of swing beds in providing long-term nursing care services in rural acute care hospitals. Section 1883 of the Social Security Act provides that certain small rural hospitals may use their inpatient facilities to furnish skilled nursing facility (SNF) services to Medicare and Medicaid beneficiaries and intermediate care facility (ICF) services to Medicaid beneficiaries.

Data Sources

The inventory of acute care beds comes from the Hospital License Renewal Applications for the reporting year, as submitted to the North Carolina Department of Health and Human Services, Division of Health Service Regulation (Agency).

Annual acute inpatient days of care come from IBM Watson Health (IBM), a collector of hospital patient discharge information. Hospitals report to IBM using the UB04 form. IBM provides general acute care days of care by facility and data on patients' county of residence to the Cecil G. Sheps Center for Health Services Research at the University of North Carolina at Chapel Hill. The Sheps Center provides the Agency with aggregate data from the patient records that have been categorized as an "acute care/general discharge."

Basic Assumptions of the Methodology

1. Target occupancies of hospitals should encourage efficiency of operation, and vary with average daily census.
2. In determining utilization rates and average daily census, the methodology counts only acute care bed days of care.
3. When a hospital receives approval to increase or decrease acute care bed capacity, the planning inventory includes this change regardless of the licensure status of the beds.
4. Beginning with the 2011 SMFP, the Agency updates service areas every three years. The updates use inpatient days of care by county of residence and county of service to delineate service areas. To update service areas, the Agency uses data on inpatient days of care by county of residence and county of service from the three most recent years of data available from the Sheps Center.

Delineation of Service Areas

The SMFP contains two types of acute care bed service areas: single county and multicounty. Counties with at least one licensed acute care hospital that are not grouped with another county are single county service areas. A multicounty service area is created under two conditions: 1) counties without a licensed acute care hospital are grouped with the single county where the largest proportion of its patients received inpatient acute care services; 2) if two counties with at least one licensed acute care hospital each provided inpatient acute care services to at least 35 percent of the residents of a county without a licensed acute care hospital, then the county without a licensed acute care hospital is grouped with both of the counties with a licensed acute care hospital.

If an entity has a certificate of need to develop an acute care hospital in a county without an acute care hospital, the planning inventory in Table 5A will include these beds upon licensure. Before licensure, the

beds remain under development in the multicounty service area. Upon licensure of the beds, the county where they are licensed becomes a single county service area.

Application of the Methodology (Table 5A)

Step 1: Determine the number of acute care beds in the inventory by totaling:

- a. the number of licensed acute care beds at each hospital (*Column D*); and
- b. the number of acute care beds for which certificates of need have been issued, but for which changes in the license were not made by the end of the reporting year (i.e., additions, reductions, and relocations) (*Column E*); and
- c. the number of acute care beds for which a need determination in the SMFP is pending review or appeal (*Column E*); and
- d. the number of beds delicensed after the end of the reporting year (*Column E*).

Step 2: Enter the total number of inpatient days of care provided by each hospital for the reporting year (*Column F*).

Step 3: Calculate the projected inpatient days of care for each service area for the projection year as follows:

- a. Determine the total number of inpatient days of care during each of the last five reporting years.
- b. Calculate the difference in the number of inpatient days of care provided from year to year.
- c. For each of the last four reporting years, determine the percentage change from the previous reporting year by dividing the calculated difference in inpatient days of care by the total number of inpatient days provided during the previous reporting year $[(\{\text{current reporting year} - \text{previous reporting year}\} / \text{previous reporting year})]$.

Step 4: Determine the Service Area Growth Rate Multiplier (*Column G*). For each service area, total the annual percentages of change and divide by four to determine the average annual change rate. For positive change, add 1 to obtain the County Growth Rate Multiplier.

Step 5: Determine the Projected Days of Care (*Column H*). If the County Growth Rate Multiplier is negative, carry forward the inpatient days of care for the reporting year unchanged to Column H. If the County Growth Rate Multiplier is positive, calculate the compounded growth factor projected for the next four reporting years by using the County Growth Rate Multiplier (from Step 4) in the first year and compound the change each year thereafter at the same rate $[\text{Inpatient Days of Care} \times (\text{County Growth Rate Multiplier})^4]$.

Step 6: Calculate the projected midnight average daily census for each hospital for the projection year by dividing the projected days of care provided at the hospital (from Step 5) by 365.25 days (*Column I*).

Step 7: Multiply each hospital's projected midnight average daily census from Step 6 by the appropriate target occupancy factor below and enter in Column J:

Average Daily Census	Target Occupancy Percentage	Occupancy Factor
Average Daily Census less than 100	66.7%	1.50
Average Daily Census 100-200	71.4%	1.40
Average Daily Census greater than 200 and <=400	75.2%	1.33
Average Daily Census greater than 400	78.0%	1.28

Step 8: Determine the surplus or deficit of beds for each **individual** hospital by subtracting the planning inventory of beds (*Column D plus Column E*) from the number of beds generated in Step 7 (*Column J*). Deficits are positive numbers and surpluses are negative numbers (*Column K*).

Step 9: Calculate the **projected** acute care bed **surplus or** deficit in a service area as follows:

- a. If a service area has hospitals under common ownership, total the surpluses and deficits of beds (from Step 8) for **each of** those hospitals to determine the surplus or deficit of beds for each group of hospitals under common ownership.
- b. The threshold for a need determination for consideration of additional acute care beds is a projected deficit that equals or exceeds 20 or more beds or 10% of the planning inventory for a single hospital or a group of hospitals under common ownership.
- c. **When any single hospital or group of hospitals under common ownership reaches the threshold in 9b., sum the deficits of all single hospitals and groups of hospitals under common ownership in the service area. Then subtract from that number any beds for prior year need determinations for which a CON has not yet been issued.**

Step 10: If the difference resulting from 9c. equals or exceeds (a) 20 beds or (b) 10% of the inventory of the single hospital **with the fewest acute care beds in its planning inventory** or (c) 10% of the inventory of **the** group of hospitals under common ownership **with the fewest acute care beds in its planning inventory**, then the need is equal to the difference. Otherwise the need is zero. (*Column L*).

Qualified Applicants

Any qualified applicant may apply for a certificate of need to acquire the needed acute care beds. A person is a qualified applicant if he or she proposes to operate the additional acute care beds in a hospital that will provide:

1. a 24-hour emergency services department;
2. inpatient medical services to both surgical and non-surgical patients; and
3. if proposing a new licensed hospital, medical and surgical services on a daily basis within at least five of the following major diagnostic categories recognized by the Centers for Medicare and Medicaid Services (CMS) listed below:
 - MDC 1: Diseases and disorders of the nervous system
 - MDC 2: Diseases and disorders of the eye
 - MDC 3: Diseases and disorders of the ear, nose, mouth and throat
 - MDC 4: Diseases and disorders of the respiratory system
 - MDC 5: Diseases and disorders of the circulatory system
 - MDC 6: Diseases and disorders of the digestive system

- MDC 7: Diseases and disorders of the hepatobiliary system and pancreas
- MDC 8: Diseases and disorders of the musculoskeletal system and connective tissue
- MDC 9: Diseases and disorders of the skin, subcutaneous tissue and breast
- MDC 10: Endocrine, nutritional and metabolic diseases and disorders
- MDC 11: Diseases and disorders of the kidney and urinary tract
- MDC 12: Diseases and disorders of the male reproductive system
- MDC 13: Diseases and disorders of the female reproductive system
- MDC 14: Pregnancy, childbirth and the puerperium
- MDC 15: Newborns/other neonates with conditions originating in the perinatal period
- MDC 16: Diseases and disorders of the blood and blood-forming organs and immunological disorders
- MDC 17: Myeloproliferative diseases and disorders and poorly differentiated neoplasms
- MDC 18: Infectious and parasitic diseases
- MDC 19: Mental diseases and disorders
- MDC 20: Alcohol/drug use and alcohol/drug-induced organic mental disorders
- MDC 21: Injury, poisoning and toxic effects of drugs
- MDC 22: Burns
- MDC 23: Factors influencing health status and other contacts with health services
- MDC 24: Multiple significant trauma
- MDC 25: Human immunodeficiency virus infections