Title 10

DEPARTMENT OF HEALTH AND MENTAL HYGIENE

Subtitle 24 MARYLAND HEALTH CARE COMMISSION

Chapter 08 State Health Plan for Facilities and Services: Nursing Home[,] *and* Home Health Agency[, and Hospice] Services

Authority: Health –General Article §§ 19-109(a)(1) and 19-118,

Annotated Code of Maryland

NOTICE OF PROPOSED ACTION

The Maryland Health Care Commission proposes to amend Regulations **.01** under **COMAR 10.24.08 State Health Plan for Facilities and Services: Nursing Home, Home Health Agency, and Hospice Services.** This action was considered by the Commission at an open meeting held on June 20, 2013, notice of which was given through publication in the Maryland Register, under State Government Article, §10-506, Annotated Code of Maryland.

Statement of Purpose

The purpose of this action is to update in its entirety the portions of the State Health Plan devoted to Hospice Services. This amendment allow the Commission to remove Hospice Services from under the chapter dealing with Nursing Homes and Home Health Agency and Hospice Services (Long Term Care Services) and place it in a new chapter in its entirety under COMAR 10.24.13 State Health Plan for Facilities and Services: Hospice Services.

MARYLAND
HEALTH CARE
COMMISSION

STATE HEALTH PLAN FOR FACILITIES AND SERVICES:

NURSING HOME [,] *AND* ***HOME HEALTH AGENCY [AND HOSPICE] SERVICES***

COMAR 10.24.08

Proposed Permanent Regulation

Written Public Comments
Accepted Until August 26, 2013
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State Health Plan for Facilities and Services: Nursing Home[,] *and* Home Health Agency[, and Hospice] Services

.01 Incorporation by Reference. This Chapter is incorporated by reference in the Code of Maryland Regulations.

.02 Introduction.

A. Purposes of the State Health Plan.

The Maryland Health Care Commission has prepared this Chapter of the State Health Plan for Facilities and Services ("State Health Plan" or "Plan") in order to further the mission of health planning, which is to plan to meet the current and future health care system needs of all Maryland residents by assuring access, quality, and cost-effectiveness. The Commission views the State Health Plan, of which this Chapter is a part, as a policy blueprint for shaping and reshaping the health care system toward these ends, through the action of public agencies and the cooperation of private actors. Through the State Health Plan, the Commission undertakes an active role in proposing needed changes in the system, including the reallocation of resources to achieve a health care system that is cost-effective, and that balances considerations of affordability, access, and quality. In every aspect of the Plan, and in its individual Certificate of Need decisions, the Commission carefully weighs issues of quality of care and access to long term care services with considerations of quality and cost.

The State Health Plan serves two purposes:

(1) It establishes health care policy to guide the Commission's actions and those of other health-related public agencies, and to foster specific actions in the private sector. Activities of State agencies must, by law, be consistent with the Plan.

(2) It is the legal foundation for the Commission's decisions in its regulatory programs. These programs ensure that appropriate changes in service capacity are encouraged, and that all major expenditures for health care facilities are needed and consistent with the Commission's policies. The State Health Plan, therefore, contains policies, standards, and service-specific need projection methodologies that the Commission uses in making Certificate of Need decisions.

B. Legal Authority for the State Health Plan for Facilities and Services.

The Maryland Health Care Commission is given legal authority under Maryland Code Annotated, Health-General Article, §19-118 to develop and adopt the State Health Plan. Subsection §19-118(a)(2) states that the State Health Plan shall include:

1. The methodologies, standards, and criteria for Certificate of Need review; and
2. Priority for conversion of acute care capacity to alternative uses where appropriate.

C. Organizational Setting of the Commission.

The Maryland Health Care Commission is an independent agency located within the Department of Health and Mental Hygiene for budgetary purposes. The purposes of the Commission, as provided under §19-103(c) are to:

1. Develop health care cost containment strategies to help provide access to appropriate quality health care services for all Marylanders, after consulting with the Health Services Cost Review Commission;
2. Promote the development of a health regulatory system that provides, for all Marylanders, financial and geographic access to quality health care services at a reasonable cost by advocating policies and systems to promote the efficient delivery of and improved access to health care services, and enhancing the strengths of the current health care service delivery and regulatory system;
3. Facilitate the public disclosure of medical claims data for the development of public policy;
4. Establish and develop a medical care data base on health care services rendered by health care practitioners;
5. Encourage the development of clinical resource management systems to permit the comparison of costs between various treatment settings and the availability of information to consumers, providers, and purchasers of health care services.
6. In accordance with Title 15, Subtitle 12 of the Insurance Article, develop a uniform set of effective benefits to be included in the Comprehensive Standard Health Benefit Plan, and a uniform set of effective benefits to be included in the Limited Health Benefit Plan;
7. Analyze the medical care data base and provide, in aggregate form, an annual report on the variations in costs associated with health care practitioners;
8. Ensure utilization of the medical care data base as a primary means to compile data and information and annually report on trends and variances regarding fees for service, cost of care, regional and national comparisons, and indications of malpractice situations;
9. Establish standards for the operation and licensing of medical electronic claims clearinghouses in Maryland;

10. Reduce the costs of claims submissions and the administration of claims for health care practitioners and payors;
11. Determine the cost of mandated health insurance services in the State in accordance with Title 15, Subtitle 15 of the Insurance Article;
12. Promote the availability of information to consumers on charges by practitioners and reimbursements from payors; and
13. Oversee and administer the Maryland Trauma Physician Services Fund in conjunction with the Health Services Cost Review Commission.

The Commission has sole authority to prepare and adopt the State Health Plan and to issue Certificate of Need decisions and exemptions therefrom.

Subsection §19-118(e) requires the Secretary of Health and Mental Hygiene to make annual recommendations to the Commission on the State Health Plan and permits the Secretary to review and comment on the specifications used in its development. However, §19-110(a) prohibits the Secretary from disapproving or modifying any determinations the Commission makes regarding the State Health Plan or other matters. The Commission pursues effective coordination with the Secretary and State health-related agencies in the course of developing its plans and plan amendments. As required by statute, the Commission coordinates its activities with the hospital rate-setting program of the Health Services Cost Review Commission to assure access to care at a reasonable cost. The Commission also coordinates its activities with the Maryland Insurance Administration. Subsection §19-117(c) empowers the Governor to notify the Commission of any intent to modify or revise the State Health Plan, or changes the Plan within 45 days of its receipt. Otherwise, the Plan becomes effective.

D. Plan Content.

This Nursing Home[,] *and* Home Health Agency[, and Hospice] Services Chapter comprises one component of the overall State Health Plan for Maryland, which also addresses acute care, ambulatory surgery, obstetric, comprehensive rehabilitation, acute psychiatric, addictions, and other services.

Under §19-120 (j)(2)(iii)(4) of the Health-General Article, Annotated Code of Maryland and COMAR 10.24.01.02, a Certificate of Need is required for the establishment, or certain expansions, of a comprehensive care (nursing home) facility, chronic hospital, home health agency or subunit, and a hospice program. Commission statute, at §19-123, excludes certain comprehensive care beds in continuing care retirement communities from Certificate of Need review.

This regulation fulfills the Commission's responsibility to adopt a State Health Plan at least every five years and to review and amend the plan annually, or as necessary, by superseding the current COMAR 10.24.08 and replacing it with this regulation.

.03 Issues and Policies: Nursing Homes.

A. Introduction.

Long term care refers to the array of medical, social, and support services needed by individuals who, because of chronic illness or disability, need help in caring for themselves over an extended period of time. Long term care services can include both institutional and community-based services for persons of all ages. This section of the Chapter focuses on nursing homes, including facilities licensed as comprehensive care facilities (CCF). It also includes policies and standards for short-stay hospital-based skilled nursing facilities with beds licensed as comprehensive care or extended care, as well as special hospital-chronic facilities.

In Maryland, nursing homes are licensed as either comprehensive care or extended care facilities. Under regulations of the Office of Health Care Quality, a nursing home or "comprehensive care facility" is defined as "a facility which admits patients suffering from disease or disabilities or advanced age requiring medical service and nursing service rendered by or under the supervision of a registered nurse."[1] An extended care facility license is required for "a facility which offers subacute care, providing treatment services for patients requiring inpatient care but who do not currently require continuous hospital services."[2]

This section of the Chapter addresses major issues underlying the policies developed for nursing home services in Maryland. These issues are organized into four major categories: nursing homes in the continuum of care; quality of care; consumer choice; and innovation. Supporting data on nursing homes may be found in the ***Supplement to COMAR 10.24.08: Statistical Data Tables.***

B. Statement of Issues and Policies.

(1) Nursing Homes in the Continuum of Care

The aging of the baby boom generation, those born between 1946 and 1964, will increase the size of the future elderly population. This might not, however, translate into increased nursing home utilization. The use of nursing homes has declined with the development of other types of long term care services. Although the overall supply of nursing homes may be adequate, the physical stock of nursing homes is aging. Many nursing homes in Maryland are now 20 years old or older, and are in need of renovation or replacement. Data supplied by one corporate office for 28 nursing homes showed that the age of facilities ranged from 3 to 63 years with a mean facility age of 26 years.

[1] COMAR 10.07.02.01B(6)
[2] COMAR 10.07.02.01B (12)

[.12 Issues and Policies: Hospice Services.

A. Introduction.

Hospice involves a team-oriented approach to expert medical care, pain management, and emotional and spiritual support expressly tailored to the patient's needs and wishes. Support is provided to the patient's loved ones as well. Physical, social, spiritual, and emotional care is provided during the last stages of illness, during the dying process, and during bereavement, by a medically directed, interdisciplinary team consisting of patients, families, professionals, and volunteers.[12] The focus is on caring, not curing and, in most cases, care is provided in the patient's home. However, in recent years, hospice utilization in locations other than the patient's home has increased. Patients living in nursing homes and assisted living facilities are increasingly using hospice services. Additional hospice facilities, such as residential facilities and inpatient units, have been developed for individuals needing hospice care.

Hospice care programs in Maryland are licensed as either general hospice programs or limited hospice programs under Health-General Article §19-901 through §19-913. A *General Hospice Care Program* means "a coordinated, interdisciplinary program of hospice care services designed to meet the special physical, psychological, spiritual, and social needs of dying individuals and their families, by providing palliative and supportive medical, nursing, and other health-related services during illness and bereavement through home or inpatient care." A *Limited Hospice Care Program* means "a coordinated, interdisciplinary program of hospice care services designed to meet the special physical, psychological, spiritual, and social needs of dying individuals and their families, by providing palliative and supportive non-skilled services during illness and bereavement through a home-based hospice care program."[13]

This section of the Chapter addresses major issues underlying the policies developed for hospice programs in Maryland. These issues are organized into three major categories: availability and accessibility of hospice services; pediatric hospice; and data collection. Utilization trends and analysis of factors influencing future hospice need may be found in the *Supplement to COMAR 10.24.08: Statistical Data Tables.*

B. Statement of Issues and Policies.

(1) Availability and Accessibility of Hospice Services.

Hospice care is a growing service, both in Maryland and nationally. Although the current supply of hospice programs seems adequate, the availability of hospice services needs to be assessed over time, particularly where jurisdictions are served by only one hospice. Terminally ill patients, who are too sick to be discharged from the hospital, frequently receive palliative care

[12] National Hospice and Palliative Care Organization. Website: http://nhpco.org
[13] COMAR 10.07.21.02

in hospitals with outside consultations from a licensed hospice. This may not be the most cost effective setting for these individuals. Trends such as this, where hospice care is provided in a non-traditional setting for convenience sake, need to be monitored to insure access to, and availability of, an appropriate setting where individuals can receive the full spectrum of hospice services in a consistent way.

The availability of multiple providers for all types of health services in order to enhance consumer choice has become increasingly important for policymakers and consumers as well. Although some research has indicated that factors such as demographics, diagnosis, socioeconomic factors, as well as population density affect the utilization of hospice services, this is an area that requires further study.

In some rural areas, there may be a single hospice provider. Steps should be taken for the provision of hospice services if a sole provider ceases operation. In addition, it is more difficult for a small number of rural hospice providers to absorb additional clients.

Policy 9.0 The Commission, in conjunction with the Hospice Network of Maryland, needs to monitor the availability and accessibility of hospice programs on an ongoing basis.

(2) Pediatric Hospice Services.

An issue that has arisen in the national hospice debate is the role of hospice in pediatric care. Although children should have the same access to hospice care and pain relief as older patients, to some, obtaining hospice services for children means "giving up." It is difficult for many parents to accept that nothing can be done for their children and to stop any aggressive, curative treatments. Physicians often delay seeking hospice benefits for children because so much progress has been made in fighting childhood cancers that were previously considered fatal. Furthermore, "physicians tended to realize that there was no chance of recovery nearly seven months before a child's death from cancer; parents, on the other hand, did not come to that realization until about 3 ½ months before."[14] Often, physicians do not tell, and parents do not ask. Finally, the hospice benefit requires a prediction that the patient has six months or less to live. "Our ability to predict when a child may die is uncertain...children are not able to take advantage of hospice services because we can't say a child will die in six months."[15]

One national project addressing pediatric hospice is called the Program for All-Inclusive Care for Children and their families (PACC). Children's Hospice International, with funding from the Centers for Medicare and Medicaid Services (CMS) (formerly the Health Care Financing Administration), initiated a program to address the unmet need of hospice services for children. The program, which began as a demonstration project in five states, Florida, Kentucky, New York, Utah, and Virginia, during the first year is now available to any state that wishes to

[14] Trafford, Abigail. "Children of Denial. Recent Advances in End-of Life Care Haven't Reached the Youngest Patients", *Washington Post* June 20, 2001.
[15] "Six Month Rule: Fatal Barrier". *Washington Post*, June 20, 2001.

participate and apply for funding through CMS. Maryland has not applied for this program, but the results may have applications in all states.

Policy 10.0 The Commission should continue to monitor the results of national data to determine the need for pediatric hospice care.

(3) Data Collection.

With its formation in 1982, the Hospice Network of Maryland began collecting data from its member hospices across the State. This was done in collaboration with the Maryland Health Care Commission and its predecessor agency, the Maryland Health Resources Planning Commission. Subsequent to the passage of HB 732 in 2003, the Commission was directed to collect its own hospice data. The Maryland Hospice Survey, data collected by the Commission, replaced the data collection by the Hospice Network. The first annual Maryland Hospice Survey conducted by the Commission was for fiscal year 2003. This survey has been consistent with the national survey since 2000. This provides a valuable source of data not only on Maryland hospices and how they are used, but also it permits comparisons with national data.

Several factors affect the prediction of future hospice utilization. One is reimbursement of hospice services. Hospice has been a covered service under Medicare since 1982, and in many States, including Maryland, Medicaid and several private insurance plans also cover hospice services. As shown in the ***Supplement to COMAR 10.24.08: Statistical Data Tables***, most of hospice care is reimbursed by Medicare both in Maryland and nationally. Under the 1997 Balanced Budget Amendment, several modifications were made to hospice reimbursement. These modifications included allowing hospices to discharge patients, without the loss of future benefits, whose conditions improve. Therefore, planning for hospice services should now include live discharges as well as hospice deaths. Another change is that hospice reimbursement for home care recognizes where the patient lives, (i.e., assisted living, nursing home) not where the hospice is located. Furthermore, since some hospice care is provided by home health agencies, the impact of the prospective payment system on home health care may also have an impact on hospice services.

Prediction of future utilization patterns is affected by many factors, including cancer vs. non-cancer utilization, and competition for hospice patients. Utilization of hospice services has undergone many changes in recent years. Utilization of hospice in nursing homes and other non home-based settings has increased, the percentage of hospice patients with a diagnosis of cancer has decreased, and there has been an overall increase in hospice use as patients and physicians learn about hospice as an alternative to other types of end of life care. The hospice model of care has been recognized as a better quality care model for individuals with chronic conditions and may see increased utilization by these individuals who are nearing the end of life. The Medicare Modernization Act of 2003 established the Chronic Care Improvement Program (CCIP) along with the Medicare Part D prescription drug program. This program focuses on better coordination of care for Medicare recipients with multiple chronic conditions. It calls for an initial pilot program, to be expanded at a later date, that will provide ongoing coordinated care across health care settings. It will include frequent contact with the recipient, patient education,

centralized information about the patients' care, and continuous screening for better care options as disease progresses. This may increase the number of referrals to hospice as the CCIP expands across geographic areas.

Future trends in hospice utilization are also difficult to predict. The population is aging and awareness of hospice is growing. Yet, as discussed above, patients are still referred to hospice late in the course of their illness. In addition, the death rates in Maryland and nationwide are decreasing. The growth of for profit hospices may result in increased competition for limited clients. These factors require the Commission to continue to monitor trends in utilization.

Policy 11.0 **The Commission will continue to collect data from all hospice providers in order to obtain timely, Maryland-specific data to support planning and regulation of hospice programs.**

Policy 11.1 **The Commission will examine how need for hospice services is calculated, and assess whether revisions should be made to the hospice need projection methodology in order to take into account future changes in the health care system, population, and other factors affecting hospice need.**

.13 Certificate of Need Docketing Rules: Hospice

The Commission will use rules in this section to determine whether an application for hospice services meets the necessary criteria to allow initiation of Certificate of Need (CON) review by docketing.

A. **General Docketing.** Except as noted in .13(B)(1) below, if the maximum net number of additional hospice clients to be served in a jurisdiction, calculated in accordance with the methodology consistent with .15H of this Chapter, is below the calculated volume threshold in the target year, the Commission will not docket an application to provide additional hospice services in that jurisdiction.

B. **Sole Provider.**

(1) If a hospice agency that is the sole provider of hospice services to a jurisdiction should cease operations, the Commission may docket applications to serve that jurisdiction, even if the net need is less than the calculated volume threshold.

(2) If a hospice agency that is the sole provider of hospice services to a jurisdiction is unable to serve a patient, it may request authorization from the Commission to permit a licensed Maryland hospice in a contiguous Maryland jurisdiction to serve that patient. The Commission's authorization is limited to that specific patient and does not authorize the hospice agency in the contiguous jurisdiction to serve any other patients in that jurisdiction.

.14 **Hospice Standards.** The Commission will use the following standards to review Certificate of Need proposals to establish a new general hospice program, or expand an existing hospice program to one or more additional jurisdictions.

A. **Service Area.** An applicant shall designate the jurisdiction in which it proposes to provide services.

B. **Admission Criteria.** An applicant shall identify:

(1) Its admission criteria; and

(2) Proposed limits by age, disease, or caregiver.

C. **Minimum Services.**

(1) An applicant shall provide the following services directly:

(a) Physician services and medical direction;
(b) Skilled nursing care;
(c) Counseling or social work;
(d) Spiritual services;
(e) Nutritional counseling; and
(f) On-call nursing response

(2) An applicant shall also provide the following services, either directly or through contractual arrangements:

(a) Personal care;
(b) Volunteer services;
(c) Bereavement services;
(d) Pharmacy services;
(e) Laboratory, radiology, and chemotherapy services as needed for palliative care;
(f) Medical supplies and equipment; and
(g) Special therapies, such as physical therapy, occupational therapy, speech therapy, and dietary services.

(3) An applicant shall provide bereavement services to the family for a period of at least one year following the death of the patient.

D. Setting. An applicant shall specify where hospice services will be delivered: in a private home; a residential unit; an inpatient unit; or a combination of settings.

E. Volunteers. An applicant shall have available sufficient trained caregiving volunteers to meet the needs of patients and families in the hospice program.

F. Caregivers. An applicant shall provide, in a patient's residence, appropriate instruction to, and support for, persons who are primary caretakers for a hospice patient.

G. Financial Accessibility. An applicant shall be licensed and Medicare-certified, and agree to accept clients whose expected primary source of payment is Medicare or Medicaid.

H. Information to Providers and the General Public.

(1) General Information. An applicant shall inform the following entities about the program's services, service area, reimbursement policy, office location, and telephone number:

(a) All hospitals, nursing homes, and assisted living providers within its proposed service area;

(b) At least five physicians who practice in its proposed service area;

(c) The Senior Information and Assistance Offices located in its proposed service area; and

(d) The general public in its proposed service area.

(2) Fees. An applicant shall make its fees known to clients and their families before services are begun.

I. Time Payment Plan. An applicant shall:

(1) Establish special time payment plans for individuals unable to make full payment at the time services are rendered; and

(2) Submit to the Commission and to each client a written copy of its policy detailing time payment options and mechanisms for clients to arrange for time payment.

J. Charity Care and Sliding Fee Scale. Each applicant for hospice services shall have a written policy for the provision of charity care for uninsured and under-insured patients to promote access to hospice services regardless of an individual's ability to pay. The policy shall include provisions for, at a minimum, the following:

(1) Provide documentation of financial estimates of the amount of charity care that it intends to provide annually;\

(2) Provide documentation of a written policy for the provision of complete and partial charity care for indigent and other persons unable to pay for services;

(3) Provide documentation of a written policy for the provision of sliding fee scales for clients unable to bear the full cost of services;

(4) Provide a written copy of its charity care and sliding fee scale policies to each client before services are begun;

(5) Provide documentation that an individual notice of charity care is provided to each person who seeks services in the hospice program; and

(6) Make a determination of probable eligibility for charity care and/or reduced fees within two business days of the client's initial request.

K. Quality. An applicant shall document ongoing compliance with all federal and state quality of care standards.

L. Linkages with Other Service Providers.

(1) An applicant shall identify how inpatient care will be provided to patients, either directly, or through a contract with an inpatient provider that ensures continuity of patient care.

(2) An applicant shall agree to document, before licensure, that it has established links with hospitals, nursing homes, home health agencies, assisted living providers, Adult Evaluation and Review Services (AERS), Senior Information and Assistance, adult day care programs, the local Department of Social Services, and home delivered meal programs located within its proposed service area.

M. Respite Care. An applicant shall document its system for providing respite care for the family and other caregivers of clients.

N. Public Education Programs. An applicant shall document its plan to provide public education programs designed to increase awareness and consciousness of the needs of dying people and their caregivers.

O. Patients' Rights. An applicant shall document its compliance with the patients' rights requirements of COMAR 10.07.21.21.

.15 **Methodology for Projecting Need for Hospice Services.**

A. **Methodology Assumptions.**

(1) All hospice utilization is appropriate.

(2) The number of non-cancer patients needing hospice care is 10 percent of the number of cancer patients needing hospice care.

(3) The number of clients from each jurisdiction served by existing agencies will remain stable between the base year and target years.

(4) The percentage of cancer patients who die while enrolled in a hospice program, referred to as the hospice utilization rate, is between 37.5 and 50 percent.

B. **Period of Time Covered.**

(1) The base year from which projections are calculated is the most recent calendar or fiscal year for which hospice survey data are available.

(2) The target year is five years after the base year.

C. **Services.**

(1) Expected minimum and maximum numbers of clients served in the target year are projected for general and limited hospice programs together.

(2) No separate projection is made for inpatient hospice programs.

D. **Age Groups.** The following age groups are used: under 18, 18-44, 45-54, 55-64, 65-74, 75-84, 85 years and over.

E. **Geographic Areas.** Need is projected by jurisdiction of client residence.

F. **Inventory Rules.**

(1) The number and location of licensed general and limited hospice programs in Maryland are obtained from the Office of Health Care Quality, Department of Health and Mental Hygiene.

(2) The number and location of Certificate of Need approved general hospices in Maryland are obtained from Commission program records.

G. **Data Sources.**

(1) *Population.* Base year estimates and target year projections of Maryland population by jurisdiction and age group are obtained from the most recent population projections available from the Maryland Office of Planning.

(2) *Utilization.*

(a) Cancer death rate are based on three year average age adjusted death rates obtained from the most recent data available from the Department of Health and Mental Hygiene's Division of Vital Statistics.

(b) The number of patients served in Maryland hospices in the base year, by jurisdiction of residence, is obtained from data reported to the Hospice Network of Maryland, supplemented as necessary by special data collection.

(c) The number of patients who died in Maryland hospices in the base year, by jurisdiction of residence, is obtained from data reported to the Hospice Network of Maryland, supplemented as necessary by special data collection.

H. **Method of Calculation.** The Commission uses the following procedure to project need for additional hospice capacity in the target year:

(1) Obtain cancer death rates by age group for the base year. Multiply projected population by age group to obtain the number of cancer deaths in the target year.

(2) Calculate the hospice death rate for each planning region, and use that rate to calculate the number of hospice deaths.

(3) Calculate the jurisdictional hospice use rate and adjust that rate by ranking all jurisdictional hospice use rates and determining the 37.5^{th} and 50^{th} percentile. Calculate the adjusted minimum hospice use rate by setting hospice use rates that fall below the 37.5^{th} percentile at the rate of that percentile and setting hospice use rates that fall at or below the 37.5^{th} percentile at its calculated rate.

(4) Calculate the adjusted maximum hospice use rate by setting all use rates that fall below the 50^{th} percentile at the rate of that percentile and setting use rates that fall at or above that percentile at its calculated rate.

(5) Use calculated use rates to determine expected hospice deaths in the target year, and use this to calculate minimum and maximum need for hospice capacity.

(a) Calculate the gross minimum and maximum need for hospice by multiplying the total need by 10 percent to account for growth in use by non-cancer patients who are expected to use hospice services.

(b) Calculate the adjusted number of residents of each jurisdiction who received care from hospices.

(c) Calculate the minimum and maximum need for additional hospice capacity by subtracting from the gross need for each jurisdiction the number of hospice patients cared for in that jurisdiction. Subtract out also the projected utilization by agencies approved by the Commission to deliver hospice services in that jurisdiction.

I. Mathematical Formula. The need projection methodology described in .15H of this Chapter is shown here in mathematical form.

(1) Definitions of Terms. Terms used in .15I (2) of this Chapter are defined in the following table.

Term	Definition
i	jurisdiction residence, where 1,...,24 = Maryland jurisdictions and 25 equals out-of-state jurisdictions
j	jurisdiction of care, where 1,...,24 = Maryland jurisdictions and 25 = out-of-state jurisdictions
h	health planning region
k	age group
m	minimum and maximum jurisdictional hospice use rate, where 1 = minimum and 2 = maximum
p	hospice program
TPOP	target year population
CDRATE	average cancer death rate (most recent three years available)
TCDTH	total number of cancer deaths in the target year
THOSPAT	total number of hospice patients in the base year
HOSDR	hospice death rate in the base year
HOSDTH	number of hospice deaths in the base year
BCDTH	total number of cancer deaths in the base year
HOSUR	hospice use rate in the base year

AHOSUR	Adjusted hospice use rate
CHOSDTH	number of cancer patients who died in a hospice in the target year
CHOSLIV	number of cancer patients who do not die in a hospice in the target year
GNEED	number of hospice patient expected to need care in the target year
BCARE	number of hospice patients cared for in the base year
NSERV	number of clients served by an agency headquartered in a given jurisdiction regardless of the client's jurisdiction of residence
ORES	number of clients served by an agency headquartered in a given jurisdiction residing outside the jurisdiction
OJHQ	number of clients served in a given jurisdiction in the base year by an agency headquartered in another jurisdiction
OSHQ	number of clients served in a given jurisdiction in the base year by an agency headquartered out of state
NNEED	net additional number of hospice patients expected to need care in the target year

(2) ***Formula.*** Need for additional hospice service capacity in each jurisdiction is calculated as shown in the following table:

(a) $TCDTH_i = \sum_k [(CDRATE_{ki})(TPOP_{ki})]$

(b) $HOSDR_h = HOSDTH_h / HOSPAT_h$

(c) $THOSDTH_i = (HOSDR_h)\ (HOSPAT_i)$

(d) $HOSUR_i = THOSDTH_i / BCDTH_i$

(e) For $m = 1$, If $HOSUR_i < .375$, then $AHOSUR_{im} = .375$

If $HOSUR_i \geq .5$, then $AHOSUR_{im} = HOSUR_i$

(f) For $m = 2$, If $HOSUR_i < .5$, then $AHOSUR_{im} = .5$

If $HOSUR_i \geq .5$, then $AHOSUR_{im} = HOSUR_i$

(g) $CHOSDTH_{im} = (AHOSUR_{im})\ (TCDTH_i)$

(h) $CHOSLIV_{im} = (CHOSDTH_{im} / HOSDR_h) - CHOSDTH_{im}$

(i) $TCNEED_{im} = CHOSDTH_{im} + CHOSLIV_{im}$

(j) $GNEED_{im} = (1.1)\ (TCNEED_{im})$

(k) $BCARE_i = (NSERV_j - ORES_j) + OJHQ_i + OSHQ_i$

(l) $NNEED_{im} = GNEED_{im} - BCARE_i$

J. Update, Correction, Publication, and Notification.

(1) The Commission will update the hospice need projections at least every two years and publish them in the *Maryland Register*, including:

(a) The most recent utilization data available from the Hospice Network of Maryland;

(b) The most recent data on cancer death rates available from the Division of Vital Statistics, Department of Health and Mental Hygiene;

(c) The most recently revised population estimates and projections from the Maryland Office of Planning; and

(d) The most recent inventory of licensed and CON-approved hospice agencies and capacity prepared by the Commission.

(2) Updated projections published in the *Maryland Register* supersede any previously published projections in either the *Maryland Register* or any plan approved by the Commission.

(3) Published projections will remain in effect until the Commission publishes updated hospice need projections, and will not be revised during the interim other than to incorporate inventory changes resulting from Commission Certificate of Need decisions or merger/consolidation decisions, or to correct errors in the data or computation.]