

STATE OF MARYLAND

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SUPERSEDED

STATE HEALTH PLAN:
SPECIALIZED HEALTH CARE SERVICES –
CARDIAC SURGERY AND THERAPEUTIC
CATHETERIZATION SERVICES
COMAR 10.24.17

Effective May 14, 2001

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(i) For new programs, capacity is defined as the greater of 350 cases or the actual number of cases during the first three years of a program's existence;

(ii) For programs older than three years, capacity is defined as the highest actual annual volume attained and reported by that program over the last three years subject to a market based constraint; and

(iii) The capacity of any program cannot be greater than the higher of 800 cases or 50 percent of the projected gross need for the planning region.

(5) Publication and Recomputation of Need Projections.

(a) Need projections calculated using the methodology in this Chapter are those applied by the Commission in its Certificate of Need decisions.

(b) Updated need projections are published as notices in the *Maryland Register* prior to use in Certificate of Need decisions.

(c) The most recently published need projections supersede any previously published projections.

(d) Published need projections remain in effect until the Commission publishes updated projections.

(6) Procedure to Project Need for the Adult Population.

Trending of Maryland Open Heart Surgery Use Rates to the Target Year.

(a) Calculate the rate of open heart surgery for Maryland residents, except for Western Maryland, for each of the three most recent years of available data for each age group by dividing the total number of open heart surgery cases performed in each age group by the corresponding Maryland population.

(b) Calculate the average annual percentage change in open heart surgery use rates in each age group by summing the percentage change in use rates between each of the years for each age group, and dividing by the number of years minus one.

(c) Calculate the target year open heart surgery use rate for each age group by compounding the average annual percentage change in open heart surgery use rate for each age group from base to target year in the following way: multiply the average annual percentage change in open heart surgery use rate for each age group by the use rate in the base year, and by the resulting use rate in each year thereafter up to the third year.

Projection of Total Need for Adult Open Heart Surgery for Maryland Residents.

(a) Calculate the projected number of open heart surgery cases in the target year for Maryland residents of each Regional Service Area, except Western Maryland, by multiplying the projected target year open heart surgery use rate for each age group by the target year population in the corresponding age group in each Region.

(b) For Western Maryland, calculate the projected number of open heart surgery cases in the target year by multiplying the base year open heart surgery use rate for each age group by the target year population in the corresponding year age group in the Region.

Projection of Total Need for Adult Open Heart Surgery for Washington, D.C.

Residents. Calculate the projected need for adult open heart surgery for Washington, D.C. residents based on the base year actual number of cases incurred by Washington, D.C. residents in Maryland and Washington, D.C. hospitals.

Allocation of Total Need for Adult Open Heart Surgery to Service Areas.

(a) Calculate the base year number of open heart surgery cases by region of patient origin by adding the number of residents of each region who underwent open heart surgery in Maryland and Washington, D.C. hospitals in the base year.

(b) Calculate the base year proportion of patients in each region of residence who received open heart surgery in each Regional Service Area by dividing the number of patients from each region of residence who underwent open heart surgery in each Regional Service Area by the total number of open heart surgery patients from that region of residence.

(c) Except as provided in (d) below, allocate the target year projected number of open heart surgery cases for residents of each region to each Regional Service Area by multiplying the total projected number of cases for residents of each region by the same proportions of allocation found in step (b) above.

(d) For residents of the Western Maryland Regional Service Area allocate 45 percent of the projected number of cases to the Western Maryland Regional Service Area; and allocate the remaining 55 percent to other Regional Service Areas according to the base year proportions found in step (b) above.

Allocation of Additional Need for Out-of-State Patients.

(a) For all Regional Service Areas, except Western Maryland, allocate to each

region the actual number of adult patients from other States, foreign countries, or of unknown residence who underwent open heart surgery in each Region in the base year.

Calculation of the Net Need for Adult Cardiac Surgery Programs.

(a) For each Regional Service Area, calculate the net need for open heart surgery cases by subtracting the total existing capacity from the total projected number of cases.

(b) Need for an additional cardiac surgery program exists if the net need for open heart surgery cases in a Regional Service Area is at least 200 cases.

(7) Mathematical Formulas.

(a) The need projection methodology described above in Regulation .04E is shown here in mathematical form.

(b) Definition of Terms. Terms used in the mathematical formulas are defined in the following table:

<u>Term</u>	<u>Definition</u>
g	Maryland residents
w	Location of hospitalization in Washington, D.C.
j	Regional Service Area of utilization, where j = a,b,c,d.
a	Western Maryland Regional Service Area of utilization
b	Metropolitan Baltimore Regional Service of utilization
c	Eastern Shore Regional Service Area of utilization
d	Metropolitan Washington, D.C. Regional Service Area of utilization
x	Year of available data, where x = 1, 2, . . . n
k	Age group, where pediatric = 0-14, and adult = 15-44, 45-64, and 65 and over.
m	Location of hospitalization in Maryland
y	Years from the base year through the target year, where y = 0 when x = n
I	Region of residence, where I = q, r, s, t
q	Western Maryland Region of residence
r	Metropolitan Baltimore Region of residence

s	Eastern Shore Region of residence
t	Metropolitan Washington Region of residence excluding Washington, D.C.
h	Washington, D.C. residents
NOHS	Number of open heart surgery cases
PAGE	Age distribution of cases
POP	Estimated population
RCHOHS	Average annual percent change in OHS use rate per 100,000 population
TROHS	Projected rate of OHS in the target year
TPOP	Projected population in the target year
TOHS	Number of open heart surgery cases projected in the target year
PCALLC	Percent of projected cases allocated to each Regional Service Area in the target year
BOHS	Number of open heart surgery cases in the base year
BPOP	Estimated population in the base year
TNEED	Total number of cases allocated to each Regional Service Area of utilization in the target year
OTHER	Add-on of cases for patients other than Maryland and Washington, D.C. residents
NNEED	Net need for number of cases
CAP	Capacity of existing programs
NPROG	Needed program

(c) Procedure to Project Need for the Adult Population. The procedure described in (6)(a) – (c) is shown in the following mathematical form:

(i) Maryland OHS rates are trended to the target year as follows:

$$\text{NOHS}_{\text{gwx}} = (\text{NOHS}_{\text{gwx}})(\text{POHS}_{\text{wx}})$$

Number of OHS cases incurred by Maryland residents in Washington, D.C. hospitals in year x