ignation (or withdrawal of designation), to:

(1) The Governor of each State in which the area, population group, medical facility, or other public facility so designated is in whole or in part located;

(2) Each HSA for a health service area which includes all or any part of the area, population group, medical facility, or other public facility so designated;

(3) The SHPDA for each State in which the area, population group, medical facility, or other public facility so designated is in whole or in part located; and

(4) Appropriate public or nonprofit private entities which are located in or which have a demonstrated interest in the area so designated.

(b) The Secretary will periodically publish updated lists of designated health professional(s) shortage areas in the FEDERAL REGISTER, by type of professional(s) shortage. An updated list of areas for each type of professional(s) shortage will be published at least once annually.

(c) The effective date of the designation of an area shall be the date of the notification letter to the individual or agency which requested the designation, or the date of publication in the FEDERAL REGISTER, whichever comes first.

(d) Once an area is listed in the FEDERAL REGISTER as a designated health professional(s) shortage area, the effective date of any later withdrawal of the area's designation shall be the date when notification of the withdrawal, or an updated list of designated areas which does not include it, is published in the FEDERAL REGISTER.

APPENDIX A TO PART 5—CRITERIA FOR DESIGNATION OF AREAS HAVING SHORTAGES OF PRIMARY MEDICAL CARE PROFESSIONAL(S)

Part I—Geographic Areas

A. *Criteria.*

A geographic area will be designated as having a shortage of primary medical care professionals if the following three criteria are met:

1. The area is a rational area for the delivery of primary medical care services.

2. One of the following conditions prevails within the area:

(a) The area has a population to full-time-equivalent primary care physician ratio of at least 3,500 : 1.

(b) The area has a population to full-time-equivalent primary care physician ratio of less than 3,500 : 1 but greater than 3,000 : 1 and has unusually high needs for primary care services or insufficient capacity of existing primary care providers.

3. Primary medical care professionals in contiguous areas are overutilized, excessively distant, or inaccessible to the population of the area under consideration.

B. *Methodology.*

In determining whether an area meets the criteria established by paragraph A of this part, the following methodology will be used:

1. *Rational Areas for the Delivery of Primary Medical Care Services.*

(a) The following areas will be considered rational areas for the delivery of primary medical care services:

(i) A county, or a group of contiguous counties whose population centers are within 30 minutes travel time of each other.

(ii) A portion of a county, or an area made up of portions of more than one county, whose population, because of topography, market or transportation patterns, distinctive population characteristics or other factors, has limited access to contiguous area resources, as measured generally by a travel time greater than 30 minutes to such resources.

(iii) Established neighborhoods and communities within metropolitan areas which display a strong self-identity (as indicated by a homogeneous socioeconomic or demographic structure and/or a tradition of interaction or interdependency), have limited interaction with contiguous areas, and which, in general, have a minimum population of 20,000.

(b) The following distances will be used as guidelines in determining distances corresponding to 30 minutes travel time:

(i) Under normal conditions with primary roads available: 20 miles.

(ii) In mountainous terrain or in areas with only secondary roads available: 15 miles.

(iii) In flat terrain or in areas connected by interstate highways: 25 miles.

Within inner portions of metropolitan areas, information on the public transportation system will be used to determine the distance corresponding to 30 minutes travel time.

2. *Population Count.*

The population count used will be the total permanent resident civilian population of the area, excluding inmates of institutions, with the following adjustments, where appropriate:

(a) Adjustments to the population for the differing health service requirements of various age-sex population groups will be computed using the table below of visit rates for 12 age-sex population cohorts. The total expected visit rate will first be obtained by multiplying each of the 12 visit rates in the table by the size of the area population within that particular age-sex cohort and adding the resultant 12 visit figures together. This total expected visit rate will then be divided by the U.S. average per capita visit rate of 5.1, to obtain the adjusted population for the area.

Sex	Age groups					
	Under 5	5–14	15–24	25–44	45–64	65 and over
Male	7.3	3.8	3.3	3.6	4.7	6.4
Female	6.4	3.2	5.5	6.4	6.5	6.8

(b) The effect of transient populations on the need of an area for primary care professional(s) will be taken into account as follows:

(i) Seasonal residents, i.e., those who maintain a residence in the area but inhabit it for only 2 to 8 months per year, may be included but must be weighted in proportion to the fraction of the year they are present in the area.

(ii) Other tourists (non-resident) may be included in an area's population but only with a weight of 0.25, using the following formula: Effective tourist contribution to population = 0.25 × (fraction of year tourists are present in area) × (average daily number of tourists during portion of year that tourists are present).

(iii) Migratory workers and their families may be included in an area's population, using the following formula: Effective migrant contribution to population = (fraction of year migrants are present in area) × (average daily number of migrants during portion of year that migrants are present).

3. *Counting of Primary Care Practitioners.*

(a) All non-Federal doctors of medicine (M.D.) and doctors of osteopathy (D.O.) providing direct patient care who practice principally in one of the four primary care specialities—general or family practice, general internal medicine, pediatrics, and obstetrics and gynecology—will be counted. Those physicians engaged solely in administration, research, and teaching will be excluded. Adjustments for the following factors will be made in computing the number of full-time-equivalent (FTE) primary care physicians:

(i) Interns and residents will be counted as 0.1 full-time equivalent (FTE) physicians.

(ii) Graduates of foreign medical schools who are not citizens or lawful permanent residents of the United States will be excluded from physician counts.

(iii) Those graduates of foreign medical schools who are citizens or lawful permanent residents of the United States, but do not have unrestricted licenses to practice medicine, will be counted as 0.5 FTE physicians.

(b) Practitioners who are semi-retired, who operate a reduced practice due to infirmity or other limiting conditions, or who provide patient care services to the residents of the area only on a part-time basis will be discounted through the use of full-time equivalency figures. A 40-hour work week will be used as the standard for determining full-time equivalents in these cases. For practitioners working less than a 40-hour week, every four (4) hours (or ½ day) spent providing patient care, in either ambulatory or inpatient settings, will be counted as 0.1

FTE (with numbers obtained for FTE's rounded to the nearest 0.1 FTE), and each physician providing patient care 40 or more hours a week will be counted as 1.0 FTE physician. (For cases where data are available only for the number of hours providing patient care in office settings, equivalencies will be provided in guidelines.)

(c) In some cases, physicians located within an area may not be accessible to the population of the area under consideration. Allowances for physicians with restricted practices can be made, on a case-by-case basis. However, where only a portion of the population of the area cannot access existing primary care resources in the area, a population group designation may be more appropriate (see part II of this appendix).

(d) Hospital staff physicians involved exclusively in inpatient care will be excluded. The number of full-time equivalent physicians practicing in organized outpatient departments and primary care clinics will be included, but those in emergency rooms will be excluded.

(e) Physicians who are suspended under provisions of the Medicare-Medicaid Anti-Fraud and Abuse Act for a period of eighteen months or more will be excluded.

4. *Determination of Unusually High Needs for Primary Medical Care Services.*

An area will be considered as having unusually high needs for primary health care services if at least one of the following criteria is met:

(a) The area has more than 100 births per year per 1,000 women aged 15-44.

(b) The area has more than 20 infant deaths per 1,000 live births.

(c) More than 20% of the population (or of all households) have incomes below the poverty level.

5. *Determination of Insufficient Capacity of Existing Primary Care Providers.*

An area's existing primary care providers will be considered to have insufficient capacity if at least two of the following criteria are met:

(a) More than 8,000 office or outpatient visits per year per FTE primary care physician serving the area.

(b) Unusually long waits for appointments for routine medical services (i.e., more than 7 days for established patients and 14 days for new patients).

(c) Excessive average waiting time at primary care providers (longer than one hour where patients have appointments or two hours where patients are treated on a first-come, first-served basis).

(d) Evidence of excessive use of emergency room facilities for routine primary care.

(e) A substantial proportion (2/3 or more) of the area's physicians do not accept new patients.

(f) Abnormally low utilization of health services, as indicated by an average of 2.0 or less office visits per year on the part of the area's population.

6. *Contiguous Area Considerations.*

Primary care professional(s) in areas contiguous to an area being considered for designation will be considered excessively distant, overutilized or inaccessible to the population of the area under consideration if one of the following conditions prevails in each contiguous area:

(a) Primary care professional(s) in the contiguous area are more than 30 minutes travel time from the population center(s) of the area being considered for designation (measured in accordance with paragraph B.1(b) of this part).

(b) The contiguous area population-to-full-time-equivalent primary care physician ratio is in excess of 2000:1, indicating that practitioners in the contiguous area cannot be expected to help alleviate the shortage situation in the area being considered for designation.

(c) Primary care professional(s) in the contiguous area are inaccessible to the population of the area under consideration because of specified access barriers, such as:

(i) Significant differences between the demographic (or socio-economic) characteristics of the area under consideration and those of the contiguous area, indicating that the population of the area under consideration may be effectively isolated from nearby resources. This isolation could be indicated, for example, by an unusually high proportion of non-English-speaking persons.

(ii) A lack of economic access to contiguous area resources, as indicated particularly where a very high proportion of the population of the area under consideration is poor (i.e., where more than 20 percent of the population or the households have incomes below the poverty level), and Medicaid-covered or public primary care services are not available in the contiguous area.

C. *Determination of Degree of Shortage.*

Designated areas will be assigned to degree-of-shortage groups, based on the ratio (R) of population to number of full-time equivalent primary care physicians and the presence or absence of unusually high needs for primary health care services, according to the following table:

	High needs not indicated	High needs indicated
Group 1	No physicians	No physicians; or $R \geq 5,000$
Group 2	$R \geq 5,000$	$5,000 > R \geq 4,000$
Group 3	$5,000 > R \geq 4,000$	$4,000 > R \geq 3,500$
Group 4	$4,000 > R \geq 3,500$	$3,500 > R \geq 3,000$

D. *Determination of size of primary care physician shortage.* Size of Shortage (in number of FTE primary care physicians needed) will be computed using the following formulas:

(1) For areas without unusually high need or insufficient capacity:

Primary care physician shortage = area population/3,500 − number of FTE primary care physicians

(2) For areas with unusually high need or insufficient capacity:

Primary care physician shortage = area population/3,000 − number of FTE primary care physicians

Part II—Population Groups

A. *Criteria.*

1. In general, specific population groups within particular geographic areas will be designated as having a shortage of primary medical care professional(s) if the following three criteria are met:

(a) The area in which they reside is rational for the delivery of primary medical care services, as defined in paragraph B.1 of part I of this appendix.

(b) Access barriers prevent the population group from use of the area's primary medical care providers. Such barriers may be economic, linguistic, cultural, or architectural, or could involve refusal of some providers to accept certain types of patients or to accept Medicaid reimbursement.

(c) The ratio of the number of persons in the population group to the number of primary care physicians practicing in the area and serving the population group is at least 3,000 : 1.

2. Indians and Alaska Natives will be considered for designation as having shortages of primary care professional(s) as follows:

(a) Groups of members of Indian tribes (as defined in section 4(d) of Pub. L. 94-437, the Indian Health Care Improvement Act of 1976) are automatically designated.

(b) Other groups of Indians or Alaska Natives (as defined in section 4(c) of Pub. L. 94-437) will be designated if the general criteria in paragraph A are met.

B. *Determination of Degree of Shortage.*

Each designated population group will be assigned to a degree-of-shortage group, based on the ratio (R) of the group's population to the number of primary care physicians serving it, as follows:

Group 1—No physicians or $R > 5,000$.
Group 2—$5,000 > R \geq 4,000$.
Group 3—$4,000 > R \geq 3,500$.
Group 4—$3,500 > R \geq 3,000$.

Population groups which have received "automatic" designation will be assigned to degree-of-shortage group 4 if no information on the ratio of the number of persons in the group to the number of FTE primary care physicians serving them is provided.

C. *Determination of size of primary care physician shortage.* Size of shortage (in number of primary care physicians needed) will be computed as follows:

Primary care physician shortage = number of persons in population group/3,000 − number of FTE primary care physicians

Part III—Facilities

A. *Federal and State Correctional Institutions.*

1. *Criteria.*

Medium to maximum security Federal and State correctional institutions and youth detention facilities will be designated as having a shortage of primary medical care professional(s) if both the following criteria are met:

(a) The institution has at least 250 inmates.

(b) The ratio of the number of internees per year to the number of FTE primary care physicians serving the institution is at least 1,000:1.

Here the number of internees is defined as follows:

(i) If the number of new inmates per year and the average length-of-stay are not specified, or if the information provided does not indicate that intake medical examinations are routinely performed upon entry, then—Number of internees = average number of inmates.

(ii) If the average length-of-stay is specified as one year or more, and intake medical examinations are routinely performed upon entry, then—Number of internees = average number of inmates + (0.3) × number of new inmates per year.

(iii) If the average length-of-stay is specified as less than one year, and intake examinations are routinely performed upon entry, then—Number of internees = average number of inmates + (0.2) × (1 + ALOS/2) × number of new inmates per year where ALOS = average length-of-stay (in fraction of year). (The number of FTE primary care physicians is computed as in part I, section B, paragraph 3 above.)

2. Determination of Degree of Shortage.

Designated correctional institutions will be assigned to degree-of-shortage groups based on the number of inmates and/or the ratio (R) of internees to primary care physicians, as follows:

Group 1—Institutions with 500 or more inmates and no physicians.

Group 2—Other institutions with no physicians and institutions with R greater than (or equal to) 2,000:1.

Group 3—Institutions with R greater than (or equal to) 1,000:1 but less than 2,000:1.

B. *Public or Non-Profit Medical Facilities.*

1. *Criteria.*

Public or non-profit private medical facilities will be designated as having a shortage of primary medical care professional(s) if:

(a) the facility is providing primary medical care services to an area or population group designated as having a primary care professional(s) shortage; and

(b) the facility has insufficient capacity to meet the primary care needs of that area or population group.

2. *Methodology*

In determining whether public or non-profit private medical facilities meet the criteria established by paragraph B.1 of this Part, the following methodology will be used:

(a) *Provision of Services to a Designated Area or Population Group.*

A facility will be considered to be providing services to a designated area or population group if either:

(i) A majority of the facility's primary care services are being provided to residents of designated primary care professional(s) shortage areas or to population groups designated as having a shortage of primary care professional(s); or

(ii) The population within a designated primary care shortage area or population group has reasonable access to primary care services provided at the facility. Reasonable access will be assumed if the area within which the population resides lies within 30 minutes travel time of the facility and non-physical barriers (relating to demographic and socioeconomic characteristics of the population) do not prevent the population from receiving care at the facility.

Migrant health centers (as defined in section 319(a)(1) of the Act) which are located in areas with designated migrant population groups and Indian Health Service facilities are assumed to be meeting this requirement.

(b) *Insufficient capacity to meet primary care needs.*

A facility will be considered to have insufficient capacity to meet the primary care needs of the area or population it serves if at least two of the following conditions exist at the facility:

(i) There are more than 8,000 outpatient visits per year per FTE primary care physician on the staff of the facility. (Here the number of FTE primary care physicians is computed as in Part I, Section B, paragraph 3 above.)

(ii) There is excessive usage of emergency room facilities for routine primary care.

(iii) Waiting time for appointments is more than 7 days for established patients or more than 14 days for new patients, for routine health services.

(iv) Waiting time at the facility is longer than 1 hour where patients have appointments or 2 hours where patients are treated on a first-come, first-served basis.

3. *Determination of Degree of Shortage.*

Each designated medical facility will be assigned to the same degree-of-shortage group as the designated area or population group which it serves.

[45 FR 76000, Nov. 17, 1980, as amended at 54 FR 8737, Mar. 2, 1989; 57 FR 2480, Jan. 22, 1992]

Appendix B to Part 5—Criteria for Designation of Areas Having Shortages of Dental Professional(s)

Part I—Geographic Areas

A. *Criteria.*

A geographic area will be designated as having a dental professional shortage if the following three criteria are met:

1. The area is a rational area for the delivery of dental services.

2. One of the following conditions prevails in the area:

(a) The area has a population to full-time-equivalent dentist ratio of at least 5,000:1, or

(b) The area has a population to full-time-equivalent dentist ratio of less than 5,000:1 but greater than 4,000:1 and has unusually high needs for dental services or insufficient capacity of existing dental providers.

3. Dental professionals in contiguous areas are overutilized, excessively distant, or inaccessible to the population of the area under consideration.

B. *Methodology.*

In determining whether an area meets the criteria established by paragraph A of this part, the following methodology will be used:

1. *Rational Area for the Delivery of Dental Services.*

(a) The following areas will be considered rational areas for the delivery of dental health services:

(i) A county, or a group of several contiguous counties whose population centers are within 40 minutes travel time of each other.

(ii) A portion of a county (or an area made up of portions of more than one county) whose population, because of topography, market or transportation patterns, distinctive population characteristics, or other factors, has limited access to contiguous area resources, as measured generally by a travel time of greater than 40 minutes to such resources.

(iii) Established neighborhoods and communities within metropolitan areas which display a strong self-identity (as indicated by a homogenous socioeconomic or demographic structure and/or a traditional of interaction or intradependency), have limited interaction with contiguous areas, and which, in general, have a minimum population of 20,000.

(b) The following distances will be used as guidelines in determining distances corresponding to 40 minutes travel time:

(i) Under normal conditions with primary roads available: 25 miles.

(ii) In mountainous terrain or in areas with only secondary roads available: 20 miles.

(iii) In flat terrain or in areas connected by interstate highways: 30 miles.

Within inner portions of metropolitan areas, information on the public transportation system will be used to determine the distance corresponding to 40 minutes travel time.

2. *Population Count.*

The population count use will be the total permanent resident civilian population of the area, excluding inmates of institutions, with the following adjustments:

(a) Seasonal residents, i.e., those who maintain a residence in the area but inhabit it for only 2 to 8 months per year, may be included but must be weighted in proportion to the fraction of the year they are present in the area.

(b) Migratory workers and their families may be included in an area's population using the following formula: Effective migrant contribution to population=(fraction of year migrants are present in area)×(average daily number of migrants during portion of year that migrants are present).

3. *Counting of Dental Practitioners.*

(a) All non-Federal dentists providing patient care will be counted, except in those areas where it is shown that specialists (those dentists not in general practice or pedodontics) are serving a larger area and are not addressing the general dental care needs of the area under consideration.

(b) Full-time equivalent (FTE) figures will be used to reflect productivity differences among dental practices based on the age of the dentists, the number of auxiliaries employed, and the number of hours worked per week. In general, the number of FTE dentists will be computed using weights obtained from the matrix in Table 1, which is based on the productivity of dentists at various ages, with different numbers of auxiliaries, as compared with the average productivity of all dentists. For the purposes of these determinations, an auxiliary is defined as any non-dentist staff employed by the dentist to assist in operation of the practice.

Table 1—Equivalency Weights, by Age and Number of Auxiliaries

	<55	55–59	60–64	65+
No auxiliaries	0.8	0.7	0.6	0.5
One auxiliary	1.0	0.9	0.8	0.7
Two auxiliaries	1.2	1.0	1.0	0.8
Three auxiliaries	1.4	1.2	1.0	1.0
Four or more auxiliaries	1.5	1.5	1.3	1.2

If information on the number of auxiliaries employed by the dentist is not available, Table 2 will be used to compute the number of full-time equivalent dentists.

Table 2—Equivalency Weights, by Age

	<55	55–59	60–64	65+
Equivalency weights	1.2	0.9	0.8	0.6

The number of FTE dentists within a particular age group (or age/auxiliary group) will be obtained by multiplying the number of dentists within that group by its corresponding equivalency weight. The total supply of FTE dentists within an area is then computed as the sum of those dentists within each age (or age/auxiliary) group.

(c) The equivalency weights specified in tables 1 and 2 assume that dentists within a particular group are working full-time (40 hours per week). Where appropriate data are available, adjusted equivalency figures for dentists who are semi-retired, who operate a reduced practice due to infirmity or other limiting conditions, or who are available to the population of an area only on a part-time basis will be used to reflect the reduced availability of these dentists. In computing these equivalency figures, every 4 hours (or ½ day) spent in the dental practice will be counted as 0.1 FTE except that each dentist working more than 40 hours a week will be counted as 1.0. The count obtained for a particular age group of dentists will then be multiplied by the appropriate equivalency weight from table 1 or 2 to obtain a full-time equivalent figure for dentists within that particular age or age/auxiliary category.

4. *Determination of Unusually High Needs for Dental Services.*

An area will be considered as having unusually high needs for dental services if at least one of the following criteria is met:

(a) More than 20% of the population (or of all households) has incomes below the poverty level.

(b) The majority of the area's population does not have a fluoridated water supply.

5. *Determination of Insufficient Capacity of Existing Dental Care Providers.*

An area's existing dental care providers will be considered to have insufficient capacity if at least two of the following criteria are met:

(a) More than 5,000 visits per year per FTE dentist serving the area.

(b) Unusually long waits for appointments for routine dental services (i.e., more than 6 weeks).

(c) A substantial proportion (⅓ or more) of the area's dentists do not accept new patients.

6. *Contiguous Area Considerations.*

Dental professional(s) in areas contiguous to an area being considered for designation will be considered excessively distant, overutilized or inaccessible to the population of the area under consideration if one of the following conditions prevails in each contiguous area:

(a) Dental professional(s) in the contiguous area are more than 40 minutes travel time from the center of the area being considered for designation (measured in accordance with Paragraph B.1.(b) of this part).

(b) Contiguous area population-to-(FTE) dentist ratios are in excess of 3,000:1, indicating that resources in contiguous areas cannot be expected to help alleviate the shortage situation in the area being considered for designation.

(c) Dental professional(s) in the contiguous area are inaccessible to the population of the area under consideration because of specified access barriers, such as:

(i) Significant differences between the demographic (or socioeconomic) characteristics of the area under consideration and those of the contiguous area, indicating that the population of the area under consideration may be effectively isolated from nearby resources. Such isolation could be indicated, for example, by an unusually high proportion of non-English-speaking persons.

(ii) A lack of economic access to contiguous area resources, particularly where a very high proportion of the population of the area under consideration is poor (i.e., where more than 20 percent of the population or of the households have incomes below the poverty level) and Medicaid-covered or public dental services are not available in the contiguous area.

C. *Determination of Degree of Shortage.*

The degree of shortage of a given geographic area, designated as having a shortage of dental professional(s), will be determined using the following procedure:

Designated areas will be assigned to degree-of-shortage groups, based on the ratio (R) of population to number of full-time-equivalent dentists and the presence or absence of unusually high needs for dental services, or insufficient capacity of existing dental care providers according to the following table:

	High needs or insufficient capacity not indicated	High needs or insufficient capacity indicated
Group 1	No dentists	No dentists or $R \geq 8,000$.
Group 2	$R \geq 8,000$	$8,000 > R \geq 6,000$.
Group 3	$8,000 > R \geq 6,000$	$6,000 > R \geq 5,000$.
Group 4	$6,000 > R \geq 5,000$	$5,000 > R \geq 4,000$.

D. *Determination of size of dental shortage.* Size of Dental Shortage (in number of FTE dental practitioners needed) will be computed using the following formulas:

(1) For areas without unusually high need:

Dental shortage = area population/5,000 − number of FTE dental practitioners

(2) For areas with unusually high need:

Dental shortage = area population/4,000 − number of FTE dental practitioners

Part II—Population Groups

A. *Criteria.*

1. In general, specified population groups within particular geographic areas will be designated as having a shortage of dental care professional(s) if the following three criteria are met:

a. The area in which they reside is rational for the delivery of dental care services, as defined in paragraph B.1 of part I of this appendix.

b. Access barriers prevent the population group from use of the area's dental providers.

c. The ratio (R) of the number of persons in the population group to the number of dentists practicing in the area and serving the population group is at least 4,000:1.

2. Indians and Alaska Natives will be considered for designation as having shortages of dental professional(s) as follows:

(a) Groups of members of Indian tribes (as defined in section 4(d) of Pub. L. 94-437, the Indian Health Care Improvement Act of 1976) are automatically designated.

(b) Other groups of Indians or Alaska Natives (as defined in section 4(c) of Pub. L. 94-437) will be designated if the general criteria in paragraph 1 are met.

B. *Determination of Degree of Shortage.*

Each designated population group will be assigned to a degree-of-shortage group as follows:

Group 1—No dentists or $R \geq 8,000$.

Group 2—$8,000 > R \geq 6,000$.
Group 3—$6,000 > R \geq 5,000$.
Group 4—$5,000 > R \geq 4,000$.

Population groups which have received "automatic" designation will be assigned to degree-of-shortage group 4 unless information on the ratio of the number of persons in the group to the number of FTE dentists serving them is provided.

C. *Determination of size of dental shortage.* Size of dental shortage will be computed as follows:

Dental shortage = number of persons in population group/4,000 − number of FTE dental practitioners

Part III—Facilities

A. *Federal and State Correctional Institutions.*

1. *Criteria.*

Medium to maximum security Federal and State correctional institutions and youth detention facilities will be designated as having a shortage of dental professional(s) if both the following criteria are met:

(a) The institution has at least 250 inmates.

(b) The ratio of the number of internees per year to the number of FTE dentists serving the institution is at least 1,500:1.

Here the number of internees is defined as follows:

(i) If the number of new inmates per year and the average length-of-stay are not specified, or if the information provided does not indicate that intake dental examinations are routinely performed by dentists upon entry, then—Number of internees = average number of inmates.

(ii) If the average length-of-stay is specified as one year or more, and intake dental examinations are routinely performed upon entry, then—Number of internees = average number of inmates + number of new inmates per year.

(iii) If the average length-of-stay is specified as less than one year, and intake dental examinations are routinely performed upon entry, then—Number of internees = average number of inmates + ⅙ × (1 + 2 × ALOS) × number of new inmates per year where ALOS = average length-of-stay (in fraction of year).

(The number of FTE dentists is computed as in part I, section B, paragraph 3 above.)

2. Determination of Degree of Shortage.

Designated correctional institutions will be assigned to degree-of-shortage groups based on the number of inmates and/or the ratio (R) of internees to dentists, as follows:

Group 1—Institutions with 500 or more inmates and no dentists.

Group 2—Other institutions with no dentists and institutions with R greater than (or equal to) 3,000:1.

Group 3—Institutions with R greater than (or equal to) 1,500:1 but less than 3,000:1.

B. *Public or Non-Profit Private Dental Facilities.*

1. *Criteria.*

Public or nonprofit private facilities providing general dental care services will be designated as having a shortage of dental professional(s) if both of the following criteria are met:

(a) The facility is providing general dental care services to an area or population group designated as having a dental professional(s) shortage; and

(b) The facility has insufficent capacity to meet the dental care needs of that area or population group.

2. *Methodology.*

In determining whether public or nonprofit private facilities meet the criteria established by paragraph B.1. of this part, the following methodology will be used:

(a) *Provision of Services to a Designated Area or Population Group.*

A facility will be considered to be providing services to an area or population group if either:

(i) A majority of the facility's dental care services are being provided to residents of designated dental professional(s) shortage areas or to population groups designated as having a shortage of dental professional(s); or

(ii) The population within a designated dental shortage area or population group has reasonable access to dental services provided at the facility. Reasonable access will be assumed if the population lies within 40 minutes travel time of the facility and nonphysical barriers (relating to demographic and socioeconomic characteristics of the population) do not prevent the population from receiving care at the facility.

Migrant health centers (as defined in section 319(a)(1) of the Act) which are located in areas with designated migrant population groups and Indian Health Service facilities are assumed to be meeting this requirement.

(b) *Insufficient Capacity To Meet Dental Care Needs.*

A facility will be considered to have insufficient capacity to meet the dental care needs of a designated area or population group if either of the following conditions exists at the facility.

(i) There are more than 5,000 outpatient visits per year per FTE dentist on the staff of the facility. (Here the number of FTE dentists is computed as in part I, section B, paragraph 3 above.)

(II) Waiting time for appointments is more than 6 weeks for routine dental services.

3. Determination of Degree of Shortage.

Each designated dental facility will be assigned to the same degree-of-shortage group as the designated area or population group which it serves.

[45 FR 76000, Nov. 17, 1980, as amended at 54 FR 8738, Mar. 2, 1989; 57 FR 2480, Jan. 22, 1992]

APPENDIX C TO PART 5—CRITERIA FOR DESIGNATION OF AREAS HAVING SHORTAGES OF MENTAL HEALTH PROFESSIONALS

Part I—Geographic Areas

A. Criteria. A geographic area will be designated as having a shortage of mental health professionals if the following four criteria are met:

1 The area is a rational area for the delivery of mental health services.

2. One of the following conditions prevails within the area:

(a) The area has—

(I) A population-to-core-mental-health-professional ratio greater than or equal to 6,000:1 and a population-to-psychiatrist ratio greater than or equal to 20,000:1, or

(II) A population-to-core-professional ratio greater than or equal to 9,000:1, or

(III) A population-to-psychiatrist ratio greater than or equal to 30,000:1;

(b) The area has unusually high needs for mental health services, and has—

(I) A population-to-core-mental-health-professional ratio greater than or equal to 4,500:1 and

A population-to-psychiatrist ratio greater than or equal to 15,000:1, or

(II) A population-to-core-professional ratio greater than or equal to 6,000:1, or

(III) A population-to-psychiatrist ratio greater than or equal to 20,000:1;

3. Mental health professionals in contiguous areas are overutilized, excessively distant or inaccessible to residents of the area under consideration.

B. Methodology.

In determining whether an area meets the criteria established by paragraph A of this part, the following methodology will be used:

1. *Rational Areas for the Delivery of Mental Health Services.*

(a) The following areas will be considered rational areas for the delivery of mental health services:

(I) An established mental health catchment area, as designated in the State Mental Health Plan under the general criteria set forth in section 238 of the Community Mental Health Centers Act.

(II) A portion of an established mental health catchment area whose population, because of topography, market and/or transportation patterns or other factors, has limited access to mental health resources in the rest of the catchment area, as measured generally by a travel time of greater than 40 minutes to these resources.

(III) A county or metropolitan area which contains more than one mental health catchment area, where data are unavailable by individual catchment area.

(b) The following distances will be used as guidelines in determining distances corresponding to 40 minutes travel time:

(I) Under normal conditions with primary roads available: 25 miles.

(II) In mountainous terrain or in areas with only secondary roads available: 20 miles.

(III) In flat terrain or in areas connected by interstate highways: 30 miles.

Within inner portions of metropolitan areas, information on the public transportation system will be used to determine the distance corresponding to 40 minutes travel time.

2. *Population Count.*

The population count used will be the total permanent resident civilian population of the area, excluding inmates of institutions.

3. *Counting of mental health professionals.* (a) All non-Federal core mental health professionals (as defined below) providing mental health patient care (direct or other, including consultation and supervision) in ambulatory or other short-term care settings to residents of the area will be counted. Data on each type of core professional should be presented separately, in terms of the number of full time equivalent (FTE) practitioners of each type represented.

(b) Definitions:

(I) *Core mental health professionals* or *core professionals* includes those psychiatrists, clinical psychologists, clinical social workers, psychiatric nurse specialists, and marriage and family therapists who meet the definitions below.

(II) *Psychiatrist* means a doctor of medicine (M.D.) or doctor of osteopathy (D.O.) who

(A) Is certified as a psychiatrist or child psychiatrist by the American Medical Specialities Board of Psychiatry and Neurology or by the American Osteopathic Board of Neurology and Psychiatry, or, if not certified, is "broad eligible" (i.e., has successfully completed an accredited program of graduate medical or osteopathic education in psychiatry or child psychiatry); and

(B) Practices patient care psychiatry or child psychiatry, and is licensed to do so, if required by the State of practice.

(III) *Clinical psychologist* means an individual (normally with a doctorate in psychology) who is practicing as a clinical or counseling psychologist and is licensed or certified to do so by the State of practice; or, if licensure or certification is not required in the State of practice, an individual with a doctorate in psychology and two years of supervised clinical or counseling experience. (School psychologists are not included.)

(IV) *Clinical social worker* means an individual who—

(A) Is certified as a clinical social worker by the American Board of Examiners in Clinical Social Work, or is listed on the National Association of Social Workers' Clinical Register, or has a master's degree in social work and two years of supervised clinical experience; and

(B) Is licensed to practice as a social worker, if required by the State of practice.

(V) *Psychiatric nurse specialist* means a registered nurse (R.N.) who—

(A) Is certified by the American Nurses Association as a psychiatric and mental health clinical nurse specialist, or has a master's degree in nursing with a specialization in psychiatric/mental health and two years of supervised clinical experience; and

(B) Is licensed to practice as a psychiatric or mental health nurse specialist, if required by the State of practice.

(VI) *Marriage and family therapist* means an individual (normally with a master's or doctoral degree in marital and family therapy and at least two years of supervised clinical experience) who is practicing as a marital and family therapist and is licensed or certified to do so by the State of practice; or, if licensure or certification is not required by the State of practice, is eligible for clinical membership in the American Association for Marriage and Family Therapy.

(c) Practitioners who provide patient care to the population of an area only on a part-time basis (whether because they maintain another office elsewhere, spend some of their time providing services in a facility, are semi-retired, or operate a reduced practice for other reasons), will be counted on a partial basis through the use of full-time-equivalency calculations based on a 40-hour week. Every 4 hours (or ½ day) spent providing patient care services in ambulatory or inpatient settings will be counted as 0.1 FTE, and each practitioner providing patient care for 40 or more hours per week as 1.0 FTE. Hours spent on research, teaching, vocational or educational counseling, and social services unrelated to mental health will be excluded; if a practitioner is located wholly or partially outside the service area, only those services actually provided within the area are to be counted.

(d) In some cases, practitioners located within an area may not be accessible to the general population of the area under consideration. Practitioners working in restricted facilities will be included on an FTE basis based on time spent outside the facility. Examples of restricted facilities include correctional institutions, youth detention facilities, residential treatment centers for emotionally disturbed or mentally retarded children, school systems, and inpatient units of State or county mental hospitals.

(e) In cases where there are mental health facilities or institutions providing both inpatient and outpatient services, only those FTEs providing mental health services in outpatient units or other short-term care units will be counted.

(f) Adjustments for the following factors will also be made in computing the number of FTE providers:

(I) Practitioners in residency programs will be counted as 0.5 FTE.

(II) Graduates of foreign schools who are not citizens or lawful permanent residents of the United States will be excluded from counts.

(III) Those graduates of foreign schools who are citizens or lawful permanent residents of the United States, and practice in certain settings, but do not have unrestricted licenses to practice, will be counted on a full-time-equivalency basis up to a maximum of 0.5 FTE.

(g) Practitioners suspended for a period of 18 months or more under provisions of the Medicare-Medicaid Anti-Fraud and Abuse Act will not be counted.

4. *Determination of unusually high needs for mental health services.* An area will be considered to have unusually high needs for mental health services if one of the following criteria is met:

(a) 20 percent of the population (or of all households) in the area have incomes below the poverty level.

(b) The youth ratio, defined as the ratio of the number of children under 18 to the number of adults of ages 18 to 64, exceeds 0.6.

(c) The elderly ratio, defined as the ratio of the number of persons aged 65 and over to the number of adults of ages 18 to 64, exceeds 0.25.

(d) A high prevalence of alcoholism in the population, as indicated by prevalence data showing the area's alcoholism rates to be in the worst quartile of the nation, region, or State.

(e) A high degree of substance abuse in the area, as indicated by prevalence data showing the area's substance abuse to be in the worst quartile of the nation, region, or State.

5. *Contiguous area considerations.* Mental health professionals in areas contiguous to an area being considered for designation will be considered excessively distant, overutilized or inaccessible to the population of the area under consideration if one of the following conditions prevails in each contiguous area:

(a) Core mental health professionals in the contiguous area are more than 40 minutes travel time from the closest population center of the area being considered for designation (measured in accordance with paragraph B.1(b) of this part).

(b) The population-to-core-mental-health-professional ratio in the contiguous area is in excess of 3,000:1 and the population-to-psychiatrist ratio there is in excess of 10,000:1, indicating that core mental health professionals in the contiguous areas are overutilized and cannot be expected to help alleviate the shortage situation in the area for which designation is being considered. (If data on core mental health professionals other than psychiatrists are not available for the contiguous area, a population-to-psychiatrist ratio there in excess of 20,000:1 may be used to demonstrate overutilization.)

(c) Mental health professionals in contiguous areas are inaccessible to the population of the requested area due to geographic, cultural, language or other barriers or because of residency restrictions of programs or facilities providing such professionals.

C. *Determination of degree of shortage.* Designated areas will be assigned to degree-of-shortage groups according to the following table, depending on the ratio (R_c) of population to number of FTE core-mental-health-service providers (FTE_c); the ratio (R_p) of population to number of FTE psychiatrists (FTE_p); and the presence or absence of high needs:

High Needs Not Indicated

Group 1--$FTE_c = 0$ and $FTE_p = 0$
Group 2--R_c gte * 6,000:1 and $FTE_p = 0$
Group 3--R_c gte 6,000:1 and R_p gte 20,000
Group 4(a)--For psychiatrist placements only: All other areas with $FTE_p = 0$ or R_p gte 30,000
Group 4(b)--For other mental health practitioner placements: All other areas with R_c gte 9,000:1.

* Note "gte" means "greater than or equal to"

High Needs Indicated

Group 1--$FTE_c = 0$ and $FTE_p = 0$
Group 2--R_c gte 4,500:1 and $FTE_p = 0$
Group 3--R_c gte 4,500:1 and R_p gte 15,000
Group 4(a)--For psychiatrist placements only: All other areas with $FTE_p = 0$ or R_p gte 20,000
Group 4(b)--For other mental health practitioner placements: All other areas with R_c gte 6,000:1.

D. *Determination of Size of Shortage.* Size of Shortage (in number of FTE professionals needed) will be computed using the following formulas:

(1) For areas without unusually high need:

Core professional shortage = area population/6,000 - number of FTE core professionals
Psychiatrist shortage = area population/20,000 - number of FTE psychiatrists

(2) For areas with unusually high need:

Core professional shortage = area population/4,500 - number of FTE core professionals
Psychiatrist shortage = area population/15,000 - number of FTE psychiatrists

Part II--Population Groups

A. *Criteria.* Population groups within particular rational mental health service areas will be designated as having a mental health professional shortage if the following criteria are met:

1. Access barriers prevent the population group from using those core mental health professionals which are present in the area; and

2. One of the following conditions prevails:

(a) The ratio of the number of persons in the population group to the number of FTE core mental health professionals serving the population group is greater than or equal to 4,500:1 and the ratio of the number of persons in the population group to the number of FTE psychiatrists serving the population group is greater than or equal to 15,000:1; or,

(b) The ratio of the number of persons in the population group to the number of FTE core mental health professionals serving the population group is greater than or equal to 6,000:1; or,

(c) The ratio of the number of persons in the population group to the number of FTE psychiatrists serving the population group is greater than or equal to 20,000:1.

B. *Determination of degree of shortage.* Designated population groups will be assigned to the same degree-of-shortage groups defined in part I.C of this appendix for areas with unusually high needs for mental health services, using the computed ratio (R_c) of the number of persons in the population group to the number of FTE core mental health service providers (FTE_c) serving the population group, and the ration (R_p) of the number of persons in the population group to the number of FTE psychiatrists (FTE_p) serving the population group.

C. *Determination of size of shortage.* Size of shortage will be computed as follows:

Core professional shortage = number of persons in population group/4,500 - number of FTE core professionals
Psychiatrist shortage = number of persons in population group/15,000 - number of FTE psychiatrists

Part III--Facilities

A. *Federal and State Correctional Institutions*

1. *Criteria.*

Medium to maximum security Federal and State correctional institutions for adults or youth, and youth detention facilities, will be designated as having a shortage of psychiatric professional(s) if both of the following criteria are met:

(a) The institution has more than 250 inmates, and

(b) The ratio of the number of internees per year to the number of FTE psychiatrists serving the institution is at least 2,000:1. Here the number of internees is defined as follows:

(i) If the number of new inmates per year and the average length-of-stay are not specified, or if the information provided does not indicate that intake psychiatric examinations are routinely performed upon entry, then—

Number of internees = average number of inmates

(ii) If the average length-of-stay is specified as one year or more, and intake psychiatric examinations are routinely performed upon entry, then—

Number of internees = average number of inmates + number of new inmates per year

(iii) If the average length-of-stay is specified as less than one year, and intake psychiatric examinations are routinely performed upon entry, then—

Number of internees = average number of inmates + $\frac{1}{2} \times [1 + (2 \times ALOS)] \times$ number of new inmates per year

where ALOS = average length-of-stay (in fraction of year) (The number of FTE psychiatrists is computed as in Part I, Section B, paragraph 3 above.)

2. Determination of Degree of Shortage.

Designated correctional institutions will be assigned to degree-of-shortage groups, based on the number of inmates and/or the ratio (R) of internees to FTE psychiatrists, as follows:

Group 1—Institutions with 500 or more inmates and no psychiatrist.

Group 2—Other institutions with no psychiatrists and institutions with R greater than (or equal to) 3,000:1.

Group 3—Institutions with R greater than (or equal to) 2,000:1 but less than 3,000:1.

B. *State and County Mental Hospitals.*

1. *Criteria.*

A State or county hospital will be designated as having a shortage of psychiatric professional(s) if both of the following criteria are met:

(a) The mental hospital has an average daily inpatient census of at least 100; and

(b) The number of workload units per FTE psychiatrists available at the hospital exceeds 300, where workload units are calculated using the following formula:

Total workload units = average daily inpatient census + 2 × (number of inpatient admissions per year) + 0.5 × (number of admissions to day care and outpatient services per year).

2. *Determination of Degree of Shortage.*

State or county mental hospitals will be assigned to degree-of-shortage groups, based on the ratio (R) of workload units to number of FTE psychiatrists, as follows:

Group 1—No psychiatrists, or R>1,800.
Group 2—1,800>R>1,200.
Group 3—1,200>R>600.
Group 4—600>R>300.

C. *Community Mental Health Centers and Other Public or Nonprofit Private Facilities.*

1. *Criteria.*

A community mental health center (CMHC), authorized by Pub. L. 94-63, or other public or nonprofit private facility providing mental health services to an area or population group, may be designated as having a shortage of psychiatric professional(s) if the facility is providing (or is responsible for providing) mental health services to an area or population group designated as having a mental health professional(s), and the facility has insufficient capacity to meet the psychiatric needs of the area or population group.

2. *Methodology.*

In determining whether CMHCs or other public or nonprofit private facilities meet the criteria established in paragraph C.1 of this Part, the following methodology will be used.

(a) *Provision of Services to a Designated Area or Population Group.*

The facility will be considered to be providing services to a designated area or population group if either:

(i) A majority of the facility's mental health services are being provided to residents of designated mental health professional(s) shortage areas or to population groups designated as having a shortage of mental health professional(s); or

(ii) The population within a designated psychiatric shortage area or population group has reasonable access to mental health services provided at the facility. Such reasonable access will be assumed if the population lies within 40 minutes travel time of the facility and nonphysical barriers (relating to demographic and socioeconomic characteristics of the population) do not prevent the population from receiving care at the facility.

(b) *Responsibility for Provision of Services.*

This condition will be considered to be met if the facility, by Federal or State statute, administrative action, or contractual agreement, has been given responsibility for providing and/or coordinating mental health services for the area or population group, consistent with applicable State plans.

(c) *Insufficient capacity to meet mental health service needs.* A facility will be considered to have insufficient capacity to meet the mental health service needs of the area or population it serves if:

(i) There are more than 1,000 patient visits per year per FTE core mental health professional on staff of the facility, or

(ii) There are more than 3,000 patient visits per year per FTE psychiatrist on staff of the facility, or

(iii) No psychiatrists are on the staff and this facility is the only facility providing (or responsible for providing) mental health services to the designated area or population.

3. *Determination of Degree-of-Shortage.*

Each designated facility will be assigned to the same degree-of-shortage group as the designated area or population group which it serves.

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