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Group 3—Institutions with 2,000>R>1,000.

- 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 nonprofit 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 appoint-

ments 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

- $A. \ \ \textit{Federal} \ \ \textit{and} \ \ \textit{State} \ \ \textit{Correctional} \ \ \textit{Institutions}.$
- 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+1/3×(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.

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

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 One auxiliary Two auxiliaries	0.8	0.7	0.6	0.5
	1.0	0.9	0.8	0.7
	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

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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 (% 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.I.(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 insuffi- cient capacity not indi- cated	High needs or insuffi- cient capacity indi- cated
Group 1	No dentists	No dentists or R≥8,000.
Group 2	R≥8,000 8,000>R≥6,000	8,000>R≥6,000. 6,000>R≥5,000.
Group 4	6,000>R≥5,000	5,000>R≥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.

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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≥8.000.

Group 2—8,000>R≥6,000.

Group 3—6,000>R≥5,000.

Group 4—5,000>R≥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 the number of inmates present at the beginning of the year plus the number of new inmates entering the institution during the year, including those who left before the end of the 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 as follows, based on number of inmates and/or the ratio (R) of internees to dentists:

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

Group 2—Other institutions with no dentists and institutions with R>3,000.

Group 3—Institutions with 3,000 > R > 1,500.

 ${\bf B.}\ {\it Public}\ or\ {\it Non-Profit}\ {\it Private}\ {\it Dental}\ {\it Facilities}.$

1. Criteria.

Public or nonprofit private facilties 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

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(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);
- (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 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 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: