

Department of Health and Human Services

**OFFICE OF  
INSPECTOR GENERAL**

**EARLY and PERIODIC SCREENING,  
DIAGNOSIS, AND TREATMENT (EPSDT) --  
PERFORMANCE MEASUREMENT**



AUGUST 1992    OEI-07-90-00130

# EXECUTIVE SUMMARY

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## PURPOSE

To assess the accuracy of State reporting of Early and Periodic Screening, Diagnosis, and Treatment (EPSDT) services to Medicaid-eligible children.

## BACKGROUND

The EPSDT program was established in 1967. The EPSDT is a comprehensive child health program that provides for initial and periodic examinations and medically necessary follow-up care. The program objective is to find and treat the problems discovered by the screening services early, before they become more complex and costly to treat.

The Omnibus Budget Reconciliation Act of 1989 (OBRA 1989) expanded EPSDT coverage. Provisions effective April 1, 1990 mandated establishment of annual participation goals and reporting. In July 1990, the Health Care Financing Administration (HCFA) issued instructions to the State agencies that established an 80 percent participation goal by the end of Fiscal Year (FY) 1995. The HCFA also established annual reporting requirements for the EPSDT program which replaced quarterly reporting by the States. The first report was due April 1, 1991 for the six month period April 1, 1990 through September 30, 1990.

When HCFA undertook implementation of OBRA 1989, the existing data system was inadequate to provide comprehensive data on screening. They began a major initiative to improve the measurement system. Recognizing the need to test the reporting formats, instructions, and data entry structures, HCFA decided to use the data from the first report that covered the last six months of FY 1990 to evaluate these changes. At the end of the first reporting period, HCFA formed a Work Group to analyze the reporting process. Based on this evaluation, this Work Group, whose efforts paralleled our own, is now considering ways to improve the performance measuring system.

## METHODOLOGY

We obtained HCFA's instructions to States for reporting screening activities and participation rates. We randomly selected nine States for review, three each from the lower, middle, and higher participation levels. We obtained copies of these States' reports for the period April 1, 1990 to September 30, 1990. We evaluated the methods prescribed for calculating screening and participation ratios and assessed how well the sample States complied with instructions.

## FINDINGS

*The screening and participant ratios used to measure States' performance in the EPSDT program are essentially inaccurate.*

*Some States' EPSDT reporting is inconsistent with current HCFA instructions.*

## RECOMMENDATIONS

*The HCFA should modify the methods by which it measures screening and participation rates so that they correctly reflect States' progress in meeting statutory goals.*

*The HCFA should enhance monitoring procedures to assure the accuracy of States' reporting.*

As noted previously, a HCFA Work Group is evaluating the EPSDT reporting system. We hope that the findings and recommendations in this report will prove useful to the Work Group.

## AGENCY COMMENTS

The HCFA concurs with recommendations in the report, suggesting minor editorial changes. We have reviewed the report and made applicable modifications. The full text of HCFA's comments are included in APPENDIX E of this report.

# INTRODUCTION

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## PURPOSE

To assess the accuracy of State reporting of Early and Periodic Screening, Diagnosis, and Treatment (EPSDT) services to Medicaid-eligible children.

## BACKGROUND

### *RECENT PROGRAM AMENDMENTS*

Medicaid's EPSDT program, established in the 1967 amendments to the Social Security Act, is a comprehensive child health program that provides for initial and periodic examinations and medically necessary follow-up care. The program objective is to find and treat the problems discovered by the screening services early, before they become more complex and costly to treat.

The Omnibus Budget Reconciliation Act of 1989 (OBRA 1989) expanded EPSDT health coverage for most Medicaid-eligible children under age 21. Effective April 1, 1990, Medicaid programs must cover children through age five in families with income at or below 133 percent of the Federal Poverty Level (FPL) as established by the Department of Health and Human Services (HHS). States that extended Medicaid coverage to all pregnant women and infants with incomes up to 185 percent of the FPL, prior to passage of OBRA 1989, must maintain that coverage. Also under OBRA 1990, States must phase in coverage of children under age 19 born after September 30, 1983, whose family income does not exceed 100 percent of the FPL.

The OBRA 1989 amendments made changes to the Social Security Act. The following is now the structure of the EPSDT program.

### SERVICES: Section 1905(r)

- **Screening services** which are provided at intervals which meet reasonable standards of medical and dental practice, as determined by the State after consultation with recognized medical and dental organizations involved in child health care and, at such other intervals indicated as medically necessary to determine the existence of certain physical or mental illnesses or conditions. These services shall at a minimum include the following:
  - a comprehensive health and developmental history (including assessment of both physical and mental health development);
  - a comprehensive unclothed physical examination;
  - appropriate immunizations according to age and health history;

- laboratory tests (including lead blood level assessment appropriate for age and risk factors); and
- health education (including anticipatory guidance).
- **Vision and hearing services** which are provided at intervals that meet reasonable standards of medical practice, as determined by the State after consultation with recognized medical organizations involved in child health care and at such other intervals as medically necessary to determine the existence of a suspected illness or condition. Vision services include, at a minimum:

- diagnosis and treatment for defects in vision, including eyeglasses.

Hearing services include, at a minimum:

- diagnosis and treatment for defects in hearing, including hearing aids.

- **Dental services** which are provided at intervals that meet reasonable standards of dental practice, as determined by the State after consultation with recognized dental organizations involved in child health care, and at such other intervals as medically necessary to determine the existence of a suspected illness or condition. Dental services include, at a minimum:

- relief of pain and infections, restoration of teeth, and maintenance of dental health.

- The States must allow participation by providers who wish to furnish only one (or more) but not all diagnostic and treatment services.
- The Secretary shall not later than July 1, 1990, and every 12 months thereafter, develop and set annual participation goals for each State for participation of individuals who are covered under the State plan under this title in EPSDT services.
- The States must reimburse for diagnostic services, treatment, and other measures described in section 1905(a) of the Act whether or not they are in the States' Medicaid plan.

**REPORTING: Section 1902(a)(43)**

- The State plan for medical assistance must provide for reporting to the Secretary [in a uniform form and manner established by the Secretary, by age group and by basis of eligibility for medical assistance, and by no later than

April 1 after the end of each fiscal year, beginning with Fiscal Year (FY) 1990] the following information relating to EPSDT services provided under the plan during each fiscal year:

- (1) the number of children provided child health screening services;
- (2) the number of children referred for corrective treatment (the need for which is disclosed by such child health screening services);
- (3) the number of children receiving dental services; and
- (4) the State's results in attaining the participation goals set for the State under section 1905(r) of the Act.

### ***EPSDT REPORTING FORM***

The Health Care Financing Administration (HCFA) reporting instructions issued in July 1990 require each State to submit an annual report on EPSDT services provided to children during the previous Federal fiscal year. The Annual EPSDT Participation Report, form HCFA-416, (Appendix A), which replaced the quarterly Form HCFA-420, provides EPSDT participation information by age group and by basis of eligibility [i.e., categorically-needy (CN) or medically-needy (MN)]. Included in the report are: 1) number eligible for EPSDT, 2) total number of eligibles enrolled in continuing care arrangements, 3) number of eligibles receiving screening services, 4) total number of eligibles provided child health screening supervision, 5) participant ratio, 6) total number of screening examinations, 7) screening ratio, 8) number of eligibles referred for corrective treatment, 9) number of eligibles receiving vision services, 10) number of eligibles receiving preventive dental services, and 11) number of eligibles receiving hearing services.

Enrollees in continuing care arrangements are identified separately in the report. Continuing care providers agree to provide continuous and comprehensive child health services for EPSDT enrollees.

The participant ratio (Line 5 of the form HCFA-416) is one measure of States' progress in reaching their participation goals. The annual participant ratio is the unduplicated count of children provided health screening supervision divided by the number of EPSDT-eligible children. The number of children provided health screening supervision is the sum of those receiving screening services and those enrolled in continuous care arrangements.

The screening ratio (Line 7) is a second measure of participation. Following the instruction contained on the form, this ratio is determined by dividing the number of screening services by the number of children eligible for EPSDT.

When HCFA undertook implementation of OBRA 1989, the existing data system was inadequate to provide comprehensive data on screening. They began a major initiative to improve the measurement system. The HCFA recognized the need to test

the reporting formats, instructions, and data entry structures. They decided to use the preliminary data from the first report that covered the last six months of FY 1990 to evaluate these changes. At the end of the first reporting period, HCFA formed a Work Group to analyze the reporting process. Based on this evaluation, this Work Group, whose efforts paralleled our own, is now considering ways to improve the performance measuring system.

### ***ANNUAL PARTICIPATION GOAL***

With instructions also issued in July 1990, the HHS set a yearly participation goal for each State, by the end of FY 1995, to screen at least 80 percent of EPSDT-eligible children and to provide at least 80 percent of screenings recommended for those children (Appendix B). The individual States' FY 1989 proxy participation ratios became their baselines for interim goals for FY 1991 to FY 1995.

### **METHODOLOGY**

We obtained HCFA's instructions to States for reporting screening activities and participation rates. We used HCFA's compilation of FY 1989 EPSDT participation rates by State to select the sample of nine States (Appendix B). We randomly selected nine States for review, three each from the lower (0 - 33 percent), middle (34 - 66 percent), and higher (67 - 100 percent) participation levels.

We obtained copies of these States' reports for the period April 1, 1990 to September 30, 1990. We evaluated the methods prescribed for calculating screening and participation ratios and assessed how well the sample States complied with instructions.

Our review was conducted in accordance with the *Interim Standards for Inspections* issued by the President's Council on Integrity and Efficiency.

## FINDINGS

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### **THE SCREENING AND PARTICIPANT RATIOS USED TO MEASURE STATES' PERFORMANCE IN THE EPSDT PROGRAM ARE ESSENTIALLY INACCURATE.**

The numbers and rates of children participating in the EPSDT program, as reported on the form HCFA-416, are open to question, as are the ratios of screens those children receive. The form itself, the instructions, and the States' application of them lead to figures which are at best unreliable and at worst lead to inflated screening and participant ratios.

#### *The screening ratio misstates the States' screening performance.*

The "Guidelines for Health Supervision" of the American Academy of Pediatrics (AAP) establishes an expected annual number of screening services. The guidelines are divided into four age groups:

- Under age one: five screens within the year,
- Ages one through five: seven screens within five years,
- Ages six through fourteen: five screens within nine years, and
- Ages fifteen through twenty: three screens within six years.

States are not required to use the AAP periodicity schedule. Rather, a State may develop its own periodicity schedule in consultation with recognized medical and dental organizations involved in child health care. We will use the AAP standard, however, to illustrate the problems that arise if the screening ratio does not take into account the expected number of screens per year for each age group.

The method used to calculate the screening ratio on the form HCFA-416 neglects to take expected screens into account as HCFA intended by their manual instruction. The HCFA State Medicaid Manual, Part 5, Section 5360, describes two methods to calculate the screening ratio of children receiving EPSDT services. One method is the ratio of screening services to individuals eligible for EPSDT during the period (Part 5, Section 5360C.1. See also Section 5320.2D7 and Part 2, Section 2700.4). The second method is the ratio of screening services to the number of EPSDT-eligible children reported for each age group multiplied by the number of screening services expected for each age group member (Part 5, Section 5360C.5). Both methods of calculation use the same data but have different results.

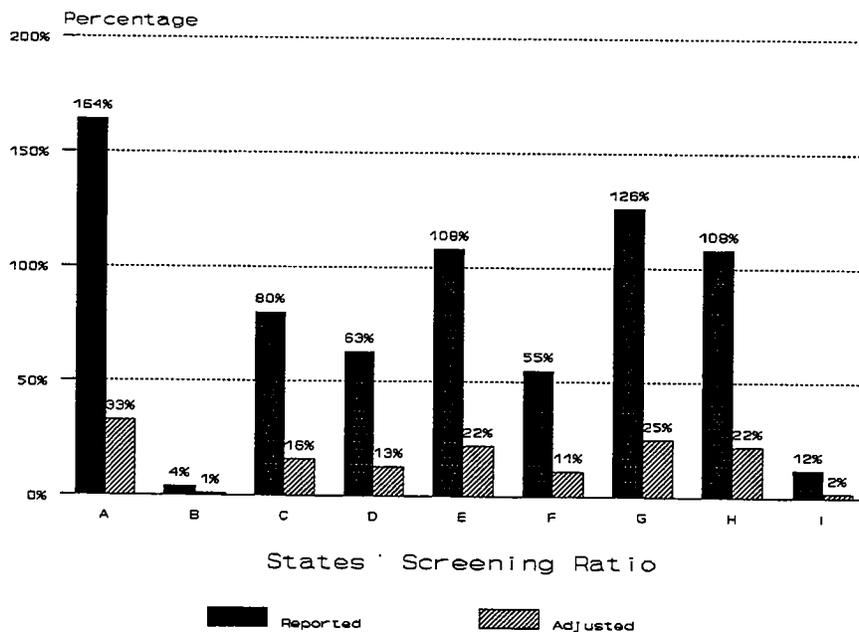
The form HCFA-416 uses the first calculation method to determine the screening ratio as described in Part 2, Section 2700.4 of the State Medicaid Manual. This method misstates the actual screening ratio since the unduplicated count does not indicate how many scheduled screens a child should receive, nor does it indicate for what length of time children are Medicaid eligible and thus able to receive EPSDT screening services

under the established screening schedule. Since the ratio is calculated using the number of screens as the numerator, and the number of eligible children as the denominator, ratios can easily exceed 100 percent. Using this method necessitates additional adjustments to approximate the actual screening ratios. It also creates confusion among policymakers as to States' actual performance in meeting EPSDT goals (Appendix C).

This problem can best be demonstrated by focusing on State reporting of screenings for children under one year of age, where the number of AAP recommended screenings in one year (five) is highest. In our sample, four States reported screening ratios greater than 100 percent for children under one year of age. As an example, one State reported a screening ratio of 164 percent for children under one year of age. If the screening ratio is adjusted to include the total number of screens recommended for this age group (five), assuming that each EPSDT-eligible should receive all five screens, the resultant ratio is reduced to 33 percent for this State.

The following chart compares the screening ratio for children under age one reported by the sample States versus the adjusted screening ratio as calculated by our office. The adjusted screening ratio results from factoring the expected number of screens for children under age one (i.e., five) into the denominator of the ratio.

REPORTED VS. ADJUSTED SCREENINGS  
Children Under Age One



*Reported figures from the HCFA-416s as provided by the States.*

Overall, the States in our sample reported a screening ratio of 94 percent for children under age one. However, if the calculation included the total goal as the number of scheduled screens due for children under age one, the overall screening ratio would be 19 percent.

Even this adjustment falls short in correctly stating the screening ratio as the number of eligible children who received all the screens they were scheduled to receive. This adjustment, like both formulas for the screening ratio listed in the Medicaid manual, fails to properly account for children who are eligible for only part of the year. In such cases, error is introduced in the opposite direction, understating the true screening ratio as defined above. Using our example of children under age one, a child born late in the reporting year may be scheduled to receive only one or two screens, rather than five, yet the screening ratio does not include this factor in its calculation. The end result is that the current method of reporting makes it difficult if not impossible to ascertain the number of children who are receiving:

- all scheduled screenings,
- some of their scheduled screenings, or
- none of the scheduled screenings.

Similar problems occur in the calculation of screening ratios in children of all ages. The amount of distortion in the measurement varies by age group because of differences in the number of screens scheduled for each.

*The participant ratios include children in continuing care arrangements who may not be receiving all appropriate screens.*

The form HCFA-416 defines the participant ratio as the children receiving "health screening supervision" divided by all eligible children. The number of children receiving screening supervision is defined as the number of eligibles enrolled in continuing care arrangements (Line 2 of the form HCFA-416) and the number of eligibles receiving screening services (Line 3 of the form HCFA-416).

The HCFA defines continuing care arrangements as those with EPSDT providers that furnish continuous care and monitoring. There are a number of arrangements, including those that allow a choice of doctors. These may include pediatricians, other practicing physicians, Health Maintenance Organizations, and community health centers. The HCFA allows States to count all enrollees in continuing care arrangements as having been screened as long as the State has a monitoring process in place. Section 5240 states that the State Medicaid agency "is deemed to have met EPSDT requirements for participants enrolled with a continuing care provider."

Three States in our sample had continuing care arrangements. One of the States counted in their report only the screenings specifically documented as having been provided to participants in continuing care arrangements. That State's report shows less than one-third of the enrollees received a screening for the six-month period of

April 1, 1990 through September 30, 1990. The other two States counted the continuing care enrollees as participants in EPSDT screening, although they could not verify that all children enrolled with continuing care providers received a screening examination during the period.

### **SOME STATES' EPSDT REPORTING IS INCONSISTENT WITH CURRENT HCFA INSTRUCTIONS.**

The form HCFA-416 instruction provides for uniform collection of EPSDT participation and screening data. However, the wide range of reporting differences by the sampled States suggests widespread reporting problems, in addition to those discussed above. The number of errors found in State reporting can be attributed both to the fact that States were using the form for the first time and that HCFA needed to refine their manual instructions on reporting.

Most of the form HCFA-416s we reviewed had errors. Several sample States submitted reports containing incorrect data and miscalculations of the data. Also, one State merely estimated the number of hearing and vision services for inclusion in the report. Two States submitted a revised form HCFA-416 after they discovered problems with the initial report submitted to HCFA. One State determined that the number of vision and hearing services was incorrectly counted on the initial report. The other State revised the number of individuals eligible for EPSDT and the participant ratio initially reported.

In some instances, we also found that States did not follow HCFA Manual instructions for the form HCFA-416. For example, one State reported on the form HCFA-416 only those who actually enrolled in the EPSDT program as EPSDT-eligible. Another State did not use the format of the form HCFA-416. As a result, the participation ratio and the screening ratio were not reported. Another State used a date different from the instruction to determine the eligibility age of the children reported on the form HCFA-416. Also, four States included emergency and treatment services along with the preventive dental care.

States vary on the manner and method of counting screens. For example, in the reported participation ratio for the last six months of FY 1990 (Appendix D), one State did not count well-child visits while other States counted these services as EPSDT screenings. Some States count claims while others count procedure codes toward EPSDT vision and hearing services. Some States use only an EPSDT claim form to count screenings.

One State respondent told us that the guidelines on the report form were "confusing" when compared to the instructions contained in Part 2, Section 2700.4. This confusion led the State to report a percentage not in line with the guidelines on the form, or instruction in the HCFA Manual. These inconsistencies resulted in inaccurate counts of the screens provided and the number of children receiving EPSDT services.

## APPENDIX C

### EPSDT SCREENING RATIO (%) FOR ELIGIBLE CHILDREN

April 1, 1990 - Sept. 30, 1990

| SAMPLE STATES | ALL ELIGIBLE CHILDREN (%) | UNDER 1 YEAR (%) | 1 - 5 YEARS (%) | 6 - 14 YEARS (%) | 15 - 20 YEARS (%) |
|---------------|---------------------------|------------------|-----------------|------------------|-------------------|
| A             | 56                        | 164              | 59              | 17               | 10                |
| B             | 2                         | 4                | 3               | 1                | 1                 |
| C             | 19                        | 80               | 16              | 3                | 4                 |
| D             | 35                        | 63               | 57              | 25               | 10                |
| E             | 36                        | 108              | 44              | 23               | 14                |
| F             | 12                        | 55               | 8               | 5                | 2                 |
| G             | 36                        | 126              | 24              | 13               | 9                 |
| H             | 29                        | 108              | 35              | 12               | 4                 |
| I             | 4                         | 12               | 6               | 3                | 1                 |

Source: Form HCFA-416

## APPENDIX D

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### EPSDT PARTICIPANT RATIO (%) FOR ELIGIBLE CHILDREN

April 1, 1990 - Sept. 30, 1990

| SAMPLE STATES | ALL ELIGIBLE CHILDREN (%) | UNDER 1 YEAR (%) | 1 - 5 YEARS (%) | 6 - 14 YEARS (%) | 15 - 20 YEARS (%) |
|---------------|---------------------------|------------------|-----------------|------------------|-------------------|
| A             | 26                        | 54               | 25              | 9                | 6                 |
| B             | 2                         | 4                | 3               | 1                | 1                 |
| C             | 17                        | 73               | 15              | 3                | 4                 |
| D             | 22                        | 40               | 37              | 16               | 6                 |
| E             | 30                        | 68               | 38              | 23               | 14                |
| F             | 11                        | 50               | 7               | 5                | 2                 |
| G             | 20                        | 42               | 22              | 13               | 9                 |
| H             | 21                        | 59               | 29              | 12               | 4                 |
| I             | 39                        | 39               | 41              | 39               | 32                |

Source: Form HCFA-416

# APPENDIX E

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## HEALTH CARE FINANCING ADMINISTRATION'S COMMENTS



JUN 5 1992

## Memorandum

Date *Bill*  
William Toby, Jr.  
From Acting Administrator

Subject OIG Draft Report: "EPSDT Performance Measurement" (OEI-07-90-00130)

To Inspector General  
Office of the Secretary

We reviewed the subject draft report in which OIG assesses the accuracy of State reporting of Early and Periodic Screening, Diagnosis and Treatment (EPSDT) services for Medicaid-eligible children. OIG focused its review on EPSDT program expansions, annual participation goals, and reporting functions mandated by the Omnibus Budget Reconciliation Act of 1989.

OIG found that the screening and participant ratios used to measure States' performance in the EPSDT program were inaccurate. Also, OIG found that some States' EPSDT reporting was inconsistent with current Health Care Financing Administration (HCFA) instructions. To address these problems, OIG recommends that HCFA: (1) modify the methods by which it measures screening and participation rates to reflect States' progress in meeting statutory goals correctly; and, (2) enhance monitoring procedures to ensure the accuracy of States' reporting. OIG acknowledges that a HCFA Work Group is already performing an independent evaluation of the EPSDT reporting system, where these recommendations will be implemented.

We are pleased that OIG used HCFA's comments made on an earlier working draft of the above-captioned report in the version now released for our review. Our current comments, limited to brief technical points, are attached for your consideration. We concur with this report and its recommendations subject to the incorporation of these technical comments in the final report.

Thank you for the opportunity to review and comment on this draft report. Please advise whether you agree with our suggested technical revisions to the report at your earliest convenience.

Attachment

Comments of the Health Care Financing Administration (HCFA)  
on the OIG Draft Report: "EPSDT Performance Measurement"  
(OEI-07-90-00130)

Recommendation 1

That HCFA should modify the methods by which it measures screening and participation rates so that they correctly reflect States' progress in meeting statutory goals.

HCFA Response

HCFA concurs with this recommendation. However, we suggest the text of the last paragraph following this recommendation (page 9) be amended to read as follows:

Children enrolled in continuing care arrangements are counted as having received the appropriate number of screens according to the screening schedules. We suggest that HCFA require States to document that all eligibles reported as having received Early and Periodic Screening, Diagnosis and Treatment (EPSDT) screenings, including continuing care enrollees, actually receive such services.

Recommendation 2

That HCFA enhance monitoring procedures to ensure the accuracy of States' reporting.

HCFA Response

HCFA concurs with this recommendation. OIG acknowledges that a HCFA Work Group is already evaluating the EPSDT reporting system. This evaluation seeks to ensure that documentation of EPSDT participation and screening services is accurate, uniform, and useful to decision makers in their assessments of the services provided to eligible children.

Technical Comments

Page i, "Background" section, first paragraph. We suggest this paragraph be amended to read:

The EPSDT program was established in 1967. EPSDT is a comprehensive child health program that provides for initial and periodic examinations and medically necessary follow-up care. The program objective is to find and treat the problems discovered by the screening services early, before they become more complex and costly to treat.

Page 1, "Recent Program Amendments" section, first paragraph. We suggest this paragraph be amended to read:

Medicaid's EPSDT program, established in the 1967 amendments to the Social Security Act, is a comprehensive child health program that provides for initial and periodic examinations and medically necessary follow-up care. The program objective is to find and treat the problems discovered by the screening services early, before they become more complex and costly to treat.

Page 2, "Vision and Hearing Services" section, second paragraph. We suggest this paragraph be amended to read:

Hearing Services include, at a minimum:

- diagnosis and treatment for defects in hearing, including hearing aids.

Page 2, "Dental Services" section, first paragraph. We suggest this paragraph be amended to read:

Dental Services which are provided at intervals that meet reasonable standards of dental practice, as determined by the State after consultation with recognized dental organizations involved in child health care, and at such other intervals as medically necessary to determine the existence of a suspected illness or condition. Dental services include, at a minimum:

- relief of pain and infections, restoration of teeth, and maintenance of dental health.

Page 3, "EPSDT Reporting Form" section, first paragraph. We suggest the fourth item in the list of inclusions to the report given in the third sentence of this paragraph be amended to read:

- 4) total number of eligibles provided child health screening supervision.