
Office of Medicaid (MassHealth)—Review of Dental Periapical Radiograph Claims Submitted by Hampshire Family Dental and Orchard Family Dental
For the period July 1, 2010 through June 30, 2015
May 17, 2016

Samer Tahoun, DMD, Owner
Hampshire Family Dental and Orchard Family Dental
439 Main Street
Indian Orchard, MA 01151

Dear Dr. Tahoun:

I am pleased to provide this performance audit of claims Hampshire Family Dental and Orchard Family Dental submitted to the Office of Medicaid (MassHealth) for dental periapical radiographs. This report details the audit objectives, scope, methodology, finding, and recommendations for the audit period, July 1, 2010 through June 30, 2015. My audit team discussed the contents of this report with you and employees of your practice, whose comments are reflected in this report.

I would also like to express my appreciation to you and your staff for the cooperation and assistance provided to my staff during the audit.

Sincerely,

Suzanne M. Bump
Auditor of the Commonwealth

cc: Marylou Sudders, Secretary, Executive Office of Health and Human Services (EOHHS)
    Daniel Tsai, Assistant Secretary and Director, MassHealth
    Alda Rego, Assistant Secretary, EOHHS, Administration and Finance
    Teresa Reynolds, Executive Assistant to Secretary Sudders
    Joan Senatore, Office of Medicaid, Compliance and Program Integrity
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EXECUTIVE SUMMARY

Under Chapter 118E of the Massachusetts General Laws, the Executive Office of Health and Human Services is responsible for administering the state’s Medicaid program, known as MassHealth. MassHealth provides access to healthcare services to approximately 1.9 million eligible low- and moderate-income children, families, seniors, and people with disabilities annually. In fiscal year 2015, MassHealth paid healthcare providers more than $13 billion, of which approximately 50%1 was funded by the Commonwealth. Medicaid expenditures represent approximately 38% of the Commonwealth’s total annual budget.

The Office of the State Auditor (OSA) has conducted an audit of dental periapical² radiograph claims paid to Hampshire Family Dental and Orchard Family Dental for the period July 1, 2010 through June 30, 2015. During this period, Hampshire Family Dental and Orchard Family Dental were paid approximately $470,000 to provide periapical radiographs for 7,595 MassHealth members. The purpose of this audit was to determine whether Hampshire Family Dental and Orchard Family Dental billed MassHealth for appropriate periapical radiographs and whether they properly documented periapical radiographs in member dental records in accordance with applicable MassHealth regulations.

The audit was conducted as part of OSA’s ongoing independent statutory oversight of the state’s Medicaid program. Several of our previously issued audit reports disclosed significant weaknesses in MassHealth’s claim-processing system, which resulted in millions of dollars in unallowable and potentially fraudulent claim payments. As with any government program, public confidence is essential to the success and continued support of the state’s Medicaid program.

Based on our audit, we have concluded that Hampshire Family Dental and Orchard Family Dental improperly billed MassHealth for periapical radiographs totaling approximately $290,417.

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1. During the federal government’s fiscal year 2015, the Federal Medical Assistance Percentage for Massachusetts was 50%.
2. A periapical radiograph shows the whole tooth from the top to where the tooth is secured in the jaw.
Below is a summary of our finding and recommendations, with links to each page listed.

<table>
<thead>
<tr>
<th>Finding 1</th>
<th>Hampshire Family Dental and Orchard Family Dental improperly billed for periapical radiographs totaling approximately $290,417.</th>
</tr>
</thead>
</table>
| Recommendations | 1. Hampshire Family Dental and Orchard Family Dental should collaborate with MassHealth to repay the approximately $290,417 in improper payments they received for periapical radiographs.  
2. Hampshire Family Dental and Orchard Family Dental should ensure that in the future, they do not bill MassHealth for periapical radiographs as part of routine biannual dental examinations. |
OVERVIEW OF AUDITED ENTITY

Under Chapter 118E of the Massachusetts General Laws, the Executive Office of Health and Human Services is responsible for the administration of the state’s Medicaid program, known as MassHealth. For the five-year period July 1, 2010 through June 30, 2015, MassHealth paid approximately $47 million to dental-service providers for dental periapical radiographs for 756,016 members as detailed below.

Dental Periapical Radiographs

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Amount Paid</th>
<th>Members Served</th>
<th>Number of Claims</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>$ 8,360,619</td>
<td>228,005</td>
<td>496,739</td>
</tr>
<tr>
<td>2012</td>
<td>8,509,557</td>
<td>233,194</td>
<td>507,734</td>
</tr>
<tr>
<td>2013</td>
<td>8,573,631</td>
<td>237,707</td>
<td>518,359</td>
</tr>
<tr>
<td>2014</td>
<td>10,050,624</td>
<td>277,127</td>
<td>659,508</td>
</tr>
<tr>
<td>2015</td>
<td>11,485,847</td>
<td>319,917</td>
<td>763,843</td>
</tr>
<tr>
<td>Total</td>
<td>$46,980,278</td>
<td>1,295,950*</td>
<td>2,946,183</td>
</tr>
</tbody>
</table>

* Of these 1,295,950 members, the unduplicated count is 756,016.

Hampshire Family Dental and Orchard Family Dental, both owned by Dr. Samer Tahoun, are certified MassHealth dental-service providers located in Northampton and Indian Orchard (a neighborhood of Springfield), Massachusetts, respectively. Together, they received a total of $5,246,776 from MassHealth during the audit period as detailed below.

Services Provided by Hampshire Family Dental and Orchard Family Dental

<table>
<thead>
<tr>
<th>Type of Services Provided</th>
<th>Amount Received</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diagnostic</td>
<td>$1,507,362</td>
</tr>
<tr>
<td>Restorative</td>
<td>1,189,603</td>
</tr>
<tr>
<td>Preventive</td>
<td>1,084,861</td>
</tr>
<tr>
<td>Exodontic</td>
<td>817,449</td>
</tr>
<tr>
<td>Other</td>
<td>463,449</td>
</tr>
<tr>
<td>Endodontic</td>
<td>134,806</td>
</tr>
<tr>
<td>Prosthodontic</td>
<td>48,606</td>
</tr>
<tr>
<td>Periodontic</td>
<td>640</td>
</tr>
<tr>
<td>Total</td>
<td>$5,246,776</td>
</tr>
</tbody>
</table>
Our audit focused on dental periapical radiograph claims for MassHealth members. Specifically, we selected dental procedure codes D0220 (periapical, first film) and D0230 (each additional periapical). These claims totaled $470,144 during the audit period and are included in the Diagnostic service category above.

**Dental Periapical Radiographs**

A periapical radiograph shows the whole tooth from the top to the jaw. When taken independently (as opposed to being one of a periodic full set of radiographs), it is used to locate problems with a tooth and the surrounding areas. MassHealth regulations allow periapical radiographs to be taken by a dental service provider either as part of a full-mouth series of radiographs (allowed once every three years) or to evaluate a specific dental problem independently. Title 420.423(3) of Section 130 of the Code of Massachusetts Regulations details the specific conditions under which MassHealth will pay for periapical radiographs that are taken independently of a full-mouth examination, including instances of a tooth having a suspected infection or anomaly.
AUDIT OBJECTIVES, SCOPE, AND METHODOLOGY

In accordance with Section 12 of Chapter 11 of the Massachusetts General Laws, the Office of the State Auditor (OSA) has conducted a performance audit of dental periapical radiograph claims for services provided to MassHealth members by Hampshire Family Dental and Orchard Family Dental for the period July 1, 2010 through June 30, 2015.

We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Below is our audit objective, indicating the question we intended our audit to answer; the conclusion we reached regarding the objective; and where the objective is discussed in the audit finding.

<table>
<thead>
<tr>
<th>Objective</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Did Hampshire Family Dental and Orchard Family Dental bill and maintain documentation in member dental records to properly support dental periapical radiographs provided to MassHealth members?</td>
<td>No; see Finding 1</td>
</tr>
</tbody>
</table>

Auditee Selection

As stated above, MassHealth paid dental-service providers approximately $47 million for dental periapical radiographs during our audit period. Because of the amount of these expenditures as well as prior OSA reports that have identified unallowable claims for periapical radiographs, OSA is conducting a series of audits focusing on providers of such radiographs. We performed data analytics on these periapical radiograph claims to identify (1) the frequency and cost of dental periapical radiographs and (2) service trends and billing anomalies indicating potential fraud, waste, and abuse. Our data analytics identified the providers who billed periapical radiographs most often. We selected Hampshire Family Dental and Orchard Family Dental for audit because we determined that of all the radiographs they took
during the audit period,\(^3\) periapical radiographs represented an average of 46%, whereas all other dental providers’ periapical radiographs averaged 28% of their totals, as illustrated below.

Methodology

To achieve our audit objective, we reviewed applicable state and federal laws, rules, and regulations; MassHealth Dental Bulletins and Transmittal Letters; the MassHealth All Provider Manual; and the MassHealth Dental Manual. Also, we requested, and received when available, the following documentation from Hampshire Family Dental and Orchard Family Dental:

- employee manual
- training documentation
- policies and procedures for processing claims
- contract with MassHealth
- patient dental records

We attempted to perform internal control testing to determine whether periapical radiographs were supported by appropriate documentation in member files. Specifically, we requested from Dr. Tahoun, the owner of both Orchard Family Dental and Hampshire Family Dental, a list and description of

\[^3\text{Dental radiographs include bitewing, panoramic, and periapical radiographs.}\]
noncompliance claim issues identified and resolved by both him and his billing clerks. Because Dr. Tahoun did not have the list readily available for our review, we could not perform our planned testing of this relevant internal control. However, we still achieved our audit objectives by increasing the number of claims tested to reflect the highest level of risk.

We performed a review of MassHealth member dental records. We selected a statistically random sample of periapical radiographs—60 of the 15,282 claims for Hampshire Family Dental and 60 of the 16,743 claims for Orchard Family Dental from the audit period—to determine whether they were billed appropriately. To make this determination, we reviewed members’ dental records, including presenting problems, services planned and provided, visual inspection of the actual periapical radiographs, and dental and billing histories, for the sampled claims. For these statistical samples, we projected the errors to each of the populations.

We assessed the reliability of the MassHealth data in the Medicaid Management Information System, which is maintained by the Executive Office of Health and Human Services. As part of this assessment, we reviewed existing information, tested selected system controls, and interviewed knowledgeable agency officials about the data. Additionally, we performed validity and integrity tests on all claim data, including (1) testing for missing data; (2) scanning for duplicate records; (3) testing for values outside a designated range; (4) looking for dates outside specific time periods; and (5) tracing a sample of claims queried to source documents. Based on the analysis conducted, we determined that the data obtained were sufficiently reliable for the purposes of this report.

Based on the evidence gathered to form a conclusion on our objective, we believe that all audit work, in particular the work referred to above, taken as a whole is relevant, valid, reliable, and sufficient and that it supports the finding and conclusions reached in this report.
DETAILED AUDIT FINDINGS WITH AUDITEE’S RESPONSE

1. Hampshire Family Dental and Orchard Family Dental improperly billed for dental periapical radiographs totaling approximately $290,417.

Hampshire Family Dental and Orchard Family Dental submitted claims, and were paid approximately $290,417, for unallowable dental periapical radiographs. Specifically, they billed for dental periapical radiographs as part of routine dental examinations.

We tested a random, statistical sample of 60 paid claims at Hampshire Family Dental and 60 at Orchard Family Dental for dental periapical radiographs in order to project the potential error to the population. Of these 120 claims, 72 were unallowable. These 72 claims were for dental periapical radiographs performed as part of routine dental exams when no full-mouth series of radiographs had been taken and the associated files did not indicate dental pain; anticipated extractions; or any suspected infection, change, or anomaly.

We projected our results to the populations of claims for dental periapical radiographs using a confidence level of 90% and a tolerable error rate of 10%, resulting in projected overpayments of approximately $290,417 during the audit period.

Authoritative Guidance

MassHealth has issued regulations under Section 420.423(B)(3) of Title 130 of the Code of Massachusetts Regulations (CMR) stating the specific conditions under which it will pay for periapical radiographs. It pays for these radiographs (1) as part of a triennial full-mouth series of radiographs that also includes bitewing radiographs or (2) under the following circumstances:

Periapical films may be taken for specific areas where extraction is anticipated, or when infection, periapical change, or an anomaly is suspected, or when otherwise directed by the MassHealth agency.

In addition, 130 CMR 420.414(B) requires dental service providers to maintain sufficient documentation in members’ dental files to fully support dental claims:

Payment by the MassHealth agency for dental services listed in 130 CMR 420.000 includes payment for preparation of the member’s dental record. Services for which payment is claimed

4. Bitewing radiographs show the crowns of upper and lower teeth in a particular area of the mouth and are used to identify cavities.
must be substantiated by clear evidence of the nature, extent, and necessity of care provided to the member. For all claims under review, the member's medical and dental records determine the appropriateness of services provided to members.

Reasons for Improper Billing

Dr. Tahoun stated that a claim representative from DentaQuest LLC\(^5\) had directed him to bill for periapical radiographs as part of routine biannual dental examinations instead of including them in a full-mouth radiograph series once every three years. However, Dr. Tahoun could not provide us with any documentation to substantiate this assertion.

Recommendations

1. Hampshire Family Dental and Orchard Family Dental should collaborate with MassHealth to repay the approximately $290,417 in improper payments they received for periapical radiographs.

2. Hampshire Family Dental and Orchard Family Dental should ensure that in the future, they do not bill MassHealth for periapical radiographs as part of routine biannual dental examinations.

MassHealth’s Response

1. MassHealth agrees with [OSA's] finding that Hampshire Family Dental and Orchard Family Dental improperly billed for periapical radiographs totaling approximately $290,417. MassHealth's Provider Compliance Unit will seek to recover the overpayment from Hampshire Family Dental and Orchard Family Dental once the final report has been issued.

2. MassHealth agrees with [OSA's] finding that Hampshire Family Dental and Orchard Family Dental should develop internal controls to prevent improper billing for periapical radiographs in the future. MassHealth will work with Hampshire Family Dental and Orchard Family Dental and their employees to provide education on MassHealth policies and recordkeeping requirements. In order to ensure Hampshire Family Dental and Orchard Family Dental adhere to MassHealth rules and implements proper billing procedures going forward, MassHealth will monitor their claims utilizing data analytics to detect possible overutilization of radiographs. Based on the monitoring results, MassHealth may also request additional records or conduct unannounced on-site audits.

Auditee’s Response

I would respectfully disagree with the audit conclusion that my office did not properly bill MassHealth for periapical radiographs in total of approximately $290,417 for the four (4) following grounds.

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5. MassHealth has a contract with Dental Service of Massachusetts Inc. under which Dental Service of Massachusetts and its subcontractor, DentaQuest, work with MassHealth to help manage MassHealth’s dental benefits.
First, the audit team has not selected a statistically valid sample of periapical radiographs. The audit sample chart chosen by the audit staff does not accurately reflect the population as a whole because it is not a valid sample. Since you rely on samples to form your audit opinion instead of individual examination, an invalid sample logically leads to an invalid conclusion.

On February 18, 2016, your staff members came to my office with a draft of an X-ray audit results. I met with them and have explained to them that the patient records in our office consist of two (2) sets of charts: one for the treatment and other for the progress notes. Your staff members informed me that only one set of the charts was reviewed in preparation of the audit report without even noticing the sub-chart inside the main chart.

The audit staff members told me that they were searching for the word “pain and discomfort” on the patient diagnosis statement in the patient chart on the date of treatment in order to determine whether or not the treatment would be qualified for a periapical payment.

The audit staff manager requested your staff to pull out one of the audit sample charts in her possession in which they were marked “not qualified PA due to no pain.” In fact, one chart that she pulled out clearly showed the word “pain” in the patient diagnosis statement on the date of treatment. While I acknowledge that my handwriting may not be clearly legible, the audit staff should not have neglected reading the patient diagnosis statement thoroughly.

Therefore, the . . . chart selected by your audit staff was not thoroughly examined for a valid audit sample testing and therefore does not accurately reflect the population as a whole. An invalid audit sample logically leads to an invalid conclusion since the audit reports rely on samples to form the audit opinion.

Second, my office usually performs a comprehensive examination, whether initial or periodic, for those patients who are new or overdue for examination or prophylaxis and have specific pain, emergency and or [sic] discomfort.

While treating those patients with their pain and or [sic] discomfort, we try to perform comprehensive examination accompanied with prophylaxis and X-rays at their initial appointment instead of making them come back for a subsequent appointment.

Because we are not allowed to charge a patient or third party payer for a . . . limited examination or palliative in combination with initial or periodic examination, we only charge for one of them only, not both. Therefore, we charge only for periodic or initial when we perform the prophylaxis in the same treatment and treat the pain and the other problems they may have.

Third, with respect to the audit conclusion that my office billed periapical X-ray services more than all other dental providers by 18%, it is important to determine the geographical location and the patients’ dental health conditions of all other dental providers.

It must be noted that the patient population in our offices has several factors of increasing the risk for caries such as high level of caries experience and or demineralization, history of recurrent caries, high titer of carcinogenic bacteria, existing restorations of poor quality, poor oral hygiene, inadequate fluoride exposure, prolonged nursing in kids, frequent high source content in
diet, poor family dental health developmental or acquired disability, genetic abnormalities of the teeth and enamel defect, eating disorder and or dry mouth and xerostomia, drugs and alcohol abuse, and irregular dental care.

Fourth, as to the issue of billing anomalies, I also like to reiterate the fact that in beginning of 2011 as I have stated previously, we were instructed by DentaQuest claim customer service representative over the phone to charge for 4 bite wings and [periapical radiographs] instead of full mouth.

We feel that we are paid less but providing better services for the patients while trying to decrease the paperwork back and forth with DentaQuest.

**Auditor's Reply**

Our audit focused on dental claims billed using procedure codes D0220 and D0230. Therefore, our sample was not drawn from all Hampshire Family Dental and Orchard Family Dental claims. Instead, we appropriately selected a statistically random sample only from codes D0220 and D0230 and extrapolated these results to the total claims made for these two procedure codes. According to generally accepted government auditing standards, such a targeted sampling approach is valid when the auditors have isolated risk factors to a specific area. Our preliminary data analytics showed that Hampshire Family Dental and Orchard Family Dental were outliers, compared to their peers, in their use of procedure codes D0220 and D0230, which was identified as an area of risk. In addition, OSA uses its professional judgment to determine the most effective method of sampling. In this case, we determined that statistical sampling, which allows us to project our testing results to all claims submitted for these procedure codes, would be the best way to give MassHealth a valid estimate of improper claims. Ultimately, MassHealth will make the final determination of what overpayments, if any, should be recovered.

Contrary to Dr. Tahoun’s assertions that we did not properly assess the validity of Hampshire Family Dental and Orchard Family Dental claims, the audit team did perform a detailed review of sampled members’ dental records, including the documentation in the two sets of charts that included the members’ treatment and progress notes. After meeting with Dr. Tahoun, we re-reviewed all 60 sampled claims and confirmed with MassHealth’s dental director that Hampshire Family Dental’s and Orchard Family Dental’s records did not always sufficiently document in the case notes the medical necessity of these periapical radiographs. Moreover, 130 CMR 420.414 requires that patient records include adequate documentation as to the nature, extent, and medical necessity of care provided to the member. In addition, 130 CMR 450.205(A) states, “The MassHealth agency will not pay a provider for
services if the provider does not have adequate documentation to substantiate the provision of services payable under MassHealth.”

In addition, in 130 CMR 450.205(D) and 130 CMR 420.414(B), MassHealth requires dental providers to maintain legible medical records that offer clear evidence of service delivery and of the nature, extent, and necessity of member dental care.

Dr. Tahoun raises questions about billing for different combinations of oral evaluations. However, our audit did not focus on, or question, the claims submitted by Hampshire Family Dental and Orchard Family Dental for such evaluations. Rather, it focused solely on the use of periapical radiographs. MassHealth regulations allow these radiographs to be taken during any oral evaluation as long as they are medically necessary and properly documented in the member’s dental records.

He also asserts that the location of his patients and their dental health conditions led to Hampshire Family Dental and Orchard Family Dental billing more frequently than other dental providers for periapical radiographs. Since our audit only included MassHealth members, we cannot comment on the general dental health of all of Dr. Tahoun’s patients. However, even if more periapical radiographs were necessary, it was Dr. Tahoun’s responsibility to ensure that they were performed in accordance with MassHealth regulations, not as part of routine dental exams, and that the associated files documented dental pain; anticipated extractions; or suspected infection, change, or anomaly.

Finally, Dr. Tahoun states that he was “instructed by DentaQuest claim customer service representative over the phone to charge for 4 bite wings and [periapical radiographs] instead of full mouth.” However, as previously noted, he was not able to provide us with any written documentation to support this claim. If DentaQuest did provide these instructions, it would have been contrary to 130 CMR 450.307, which expressly prohibits separate claims for services that could be billed under a single comprehensive code:

(A) No provider may claim payment in a way that may result in payment that exceeds the maximum allowable amount payable for such service under the applicable payment method.

(B) Without limiting the generality of 130 CMR 450.307(A), the following billing practices are forbidden . . .

(2) overstating or misrepresenting services, including submitting separate claims for services or procedures provided as components of a more-comprehensive service for which a single rate of payment is established.