United States
By the numbers: DXA Testing

<table>
<thead>
<tr>
<th>Year</th>
<th>Event Description</th>
<th>Estimated Consequences</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>Peak year for DXA scanning</td>
<td>Fewer woman to receive a DXA scan than projected since 2008</td>
</tr>
<tr>
<td></td>
<td>Decline to $42 reimbursement for DXA scans since 2006</td>
<td>4,390,043</td>
</tr>
<tr>
<td></td>
<td>Decline in DXA office providers since 2008</td>
<td>Additional hip fractures due to reduced screening</td>
</tr>
<tr>
<td></td>
<td>Fewer DXA physicians down from 20,370 to 12,773</td>
<td>55,304</td>
</tr>
<tr>
<td></td>
<td>Undiagnosed and untreated osteoporosis in 2017</td>
<td>Additional hip fracture related deaths</td>
</tr>
<tr>
<td></td>
<td></td>
<td>12,056</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Additional cost to Medicare to treat hip fractures alone</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$2.3B</td>
</tr>
</tbody>
</table>

Osteoporosis is under-diagnosed in the Medicare population according to CDC NHANES survey. DXA scans are the gold standard for osteoporosis diagnosis. Yet in 2007, CMS began significantly reducing reimbursement for DXA scans. This reduced the number of physicians in private offices offering DXA. As a result, fewer women and men were scanned resulting in a decline in osteoporosis diagnosis. Without diagnosis, fewer patients received effective treatment for low bone mass, which is now being reflected in increased fracture risk. Hip fractures are particularly expensive for CMS and destructive for the patients, as many will never be independently mobile again and 21.8% of all hip fracture patients die within a year of the fracture.

*Braid-Forbes Health Research, LLC, Medicare Carrier 5% SAF. Cost model and projections by Peter M. Steven, PhD.*
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Alaska
By the numbers: DXA Testing

<table>
<thead>
<tr>
<th>Year</th>
<th>Peak Event</th>
<th>Estimated Consequences</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>Peak year for DXA scanning</td>
<td>Fewer woman to receive a DXA scan than projected since 2008</td>
</tr>
<tr>
<td>70%</td>
<td>Decline to $42 reimbursement for DXA scans since 2006</td>
<td>9,416</td>
</tr>
<tr>
<td>13.0%</td>
<td>Decline in DXA testing of Medicare women since 2006</td>
<td>119</td>
</tr>
<tr>
<td>17.5%</td>
<td>Decline in DXA testing of Medicare women since its peak</td>
<td>26</td>
</tr>
<tr>
<td>53.9%</td>
<td>Undiagnosed and untreated osteoporosis in 2017</td>
<td>$5M</td>
</tr>
</tbody>
</table>

Estimated Consequences

- Fewer woman to receive a DXA scan than projected since 2008
- Additional hip fractures due to reduced screening
- Additional hip fracture related deaths
- Additional cost to Medicare to treat hip fractures alone

Osteoporosis is under-diagnosed in the Medicare population according to CDC NHANES survey. DXA scans are the gold standard for osteoporosis diagnosis. Yet in 2007, CMS began significantly reducing reimbursement for DXA scans. This reduced the number of physicians in private offices offering DXA. As a result, fewer women and men were scanned resulting in a decline in osteoporosis diagnosis. Without diagnosis, fewer patients received effective treatment for low bone mass, which is now being reflected in increased fracture risk. Hip fractures are particularly expensive for CMS and destructive for the patients, as many will never be independently mobile again and 21.8% of all hip fracture patients die within a year of the fracture.

Braid-Forbes Health Research, LLC, Medicare Carrier 5% SAF. Cost model and projections by Peter M. Steven, PhD.
## Arizona

By the numbers: **DXA Testing**

### 2008
- Peak year for DXA scanning
- Osteoporosis is under-diagnosed in the Medicare population according to CDC NHANES survey. DXA scans are the gold standard for osteoporosis diagnosis. Yet in 2007, CMS began significantly reducing reimbursement for DXA scans. This reduced the number of physicians in private offices offering DXA. As a result, fewer women and men were scanned resulting in a decline in osteoporosis diagnosis. Without diagnosis, fewer patients received effective treatment for low bone mass, which is now being reflected in increased fracture risk. Hip fractures are particularly expensive for CMS and destructive for the patients, as many will never be independently mobile again and 21.8% of all hip fracture patients die within a year of the fracture.

### Estimated Consequences
- Decline to $42 reimbursement for DXA scans since 2006
- Fewer woman to receive a DXA scan than projected since 2008
- Additional hip fractures due to reduced screening
- Additional hip fracture related deaths
- Additional cost to Medicare to treat hip fractures alone

<table>
<thead>
<tr>
<th>Year</th>
<th>Percentage</th>
<th>Consequence</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>70%</td>
<td>Decline in DXA office providers since 2008</td>
<td>1,393</td>
</tr>
<tr>
<td></td>
<td>29.6%</td>
<td>Fewer DXA physicians down from 465 to 327</td>
<td>304</td>
</tr>
<tr>
<td></td>
<td>34.3%</td>
<td>Undiagnosed and untreated osteoporosis in 2017</td>
<td>$58M</td>
</tr>
</tbody>
</table>

*Braid-Forbes Health Research, LLC, Medicare Carrier 5% SAF. Cost model and projections by Peter M. Steven, PhD.*
Arkansas
By the numbers: DXA Testing

2008
Peak year for DXA scanning

70%
Decline to $42 reimbursement for DXA scans since 2006

41.6%
Decline in DXA office providers since 2008

134
Fewer DXA physicians down from 323 to 189

46.2%
Undiagnosed and untreated osteoporosis in 2017

Estimated Consequences

70,450
Fewer woman to receive a DXA scan than projected since 2008

888
Additional hip fractures due to reduced screening

193
Additional hip fracture related deaths

$37M
Additional cost to Medicare to treat hip fractures alone

Osteoporosis is under-diagnosed in the Medicare population according to CDC NHANES survey. DXA scans are the gold standard for osteoporosis diagnosis. Yet in 2007, CMS began significantly reducing reimbursement for DXA scans. This reduced the number of physicians in private offices offering DXA. As a result, fewer women and men were scanned resulting in a decline in osteoporosis diagnosis. Without diagnosis, fewer patients received effective treatment for low bone mass, which is now being reflected in increased fracture risk. Hip fractures are particularly expensive for CMS and destructive for the patients, as many will never be independently mobile again and 21.8% of all hip fracture patients die within a year of the fracture.

Braid-Forbes Health Research, LLC, Medicare Carrier 5% SAF. Cost model and projections by Peter M. Steven, PhD.
## California

**By the numbers: DXA Testing**

<table>
<thead>
<tr>
<th>2011</th>
<th>Peak year for DXA scanning</th>
</tr>
</thead>
<tbody>
<tr>
<td>70%</td>
<td>Decline to $42 reimbursement for DXA scans since 2006</td>
</tr>
<tr>
<td>29.2%</td>
<td>Decline in office physicians from 1,395 to 987</td>
</tr>
<tr>
<td>10.6%</td>
<td>Decline in DXA testing of Medicare women since peak</td>
</tr>
<tr>
<td>35.6%</td>
<td>Undiagnosed and untreated osteoporosis in 2017</td>
</tr>
</tbody>
</table>

### Estimated Consequences

| 398,010 | Fewer women to receive a DXA scan than projected since 2008 |
| 5,014   | Additional hip fractures due to reduced screening |
| 1,093   | Additional hip fracture related deaths |
| $208M   | Additional cost to Medicare to treat hip fractures alone |

Osteoporosis is under-diagnosed in the Medicare population according to CDC NHANES survey. DXA scans are the gold standard for osteoporosis diagnosis. Yet in 2007, CMS began significantly reducing reimbursement for DXA scans. This reduced the number of physicians in private offices offering DXA. As a result, fewer women and men were scanned resulting in a decline in osteoporosis diagnosis. Without diagnosis, fewer patients received effective treatment for low bone mass, which is now being reflected in increased fracture risk. Hip fractures are particularly expensive for CMS and destructive for the patients, as many will never be independently mobile again and 21.8% of all hip fracture patients die within a year of the fracture.

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Osteoporosis is under-diagnosed in the Medicare population according to CDC NHANES survey. DXA scans are the gold standard for osteoporosis diagnosis. Yet in 2007, CMS began significantly reducing reimbursement for DXA scans. This reduced the number of physicians in private offices offering DXA. As a result, fewer women and men were scanned resulting in a decline in osteoporosis diagnosis. Without diagnosis, fewer patients received effective treatment for low bone mass, which is now being reflected in increased fracture risk. Hip fractures are particularly expensive for CMS and destructive for the patients, as many will never be independently mobile again and 21.8% of all hip fracture patients die within a year of the fracture.
Connecticut
By the numbers: DXA Testing

2008
Peak year for DXA scanning

70%
Decline to $42 reimbursement for DXA scans since 2006

43.5%
Decline in DXA office providers since 2008

131
Fewer DXA physicians down from 301 to 170

35.1%
Undiagnosed and untreated osteoporosis in 2017

Estimated Consequences

Fewer woman to receive a DXA scan than projected since 2008

62,427
Additional hip fractures due to reduced screening

768
Additional hip fracture related deaths

171
Additional cost to Medicare to treat hip fractures alone

$33M

Osteoporosis is under-diagnosed in the Medicare population according to CDC NHANES survey. DXA scans are the gold standard for osteoporosis diagnosis. Yet in 2007, CMS began significantly reducing reimbursement for DXA scans. This reduced the number of physicians in private offices offering DXA. As a result, fewer women and men were scanned resulting in a decline in osteoporosis diagnosis. Without diagnosis, fewer patients received effective treatment for low bone mass, which is now being reflected in increased fracture risk. Hip fractures are particularly expensive for CMS and destructive for the patients, as many will never be independently mobile again and 21.8% of all hip fracture patients die within a year of the fracture.

Braid-Forbes Health Research, LLC, Medicare Carrier 5% SAF. Cost model and projections by Peter M. Steven, PhD.
Delaware
By the numbers: DXA Testing

<table>
<thead>
<tr>
<th>Year</th>
<th>Description</th>
<th>Estimated Consequences</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>Peak year for DXA scanning</td>
<td>Fewer women to receive a DXA scan than projected since 2008</td>
</tr>
<tr>
<td>70%</td>
<td>Decline to $42 reimbursement for DXA scans since 2006</td>
<td>20,650</td>
</tr>
<tr>
<td>47.7%</td>
<td>Decline in DXA office providers since peak</td>
<td>260</td>
</tr>
<tr>
<td>28</td>
<td>Fewer DXA physicians down from 59 to 31</td>
<td>57</td>
</tr>
<tr>
<td>44.6%</td>
<td>Undiagnosed and untreated osteoporosis in 2017</td>
<td>$11M</td>
</tr>
</tbody>
</table>

Osteoporosis is under-diagnosed in the Medicare population according to CDC NHANES survey. DXA scans are the gold standard for osteoporosis diagnosis. Yet in 2007, CMS began significantly reducing reimbursement for DXA scans. This reduced the number of physicians in private offices offering DXA. As a result, fewer women and men were scanned resulting in a decline in osteoporosis diagnosis. Without diagnosis, fewer patients received effective treatment for low bone mass, which is now being reflected in increased fracture risk. Hip fractures are particularly expensive for CMS and destructive for the patients, as many will never be independently mobile again and 21.8% of all hip fracture patients die within a year of the fracture.

Braid-Forbes Health Research, LLC, Medicare Carrier 5% SAF. Cost model and projections by Peter M. Steven, PhD.
District of Columbia

By the numbers: DXA Testing

Estimated Consequences

- 70% Decline to $42 reimbursement for DXA scans since 2006
- 26.1% Decline in DXA office providers since its peak in 2009
- 12 Fewer DXA physicians down from 45 to 33
- 52.3% Undiagnosed and untreated osteoporosis in 2017
- Fewer woman to receive a DXA scan than projected since 2008
- 7,636 Additional hip fractures due to reduced screening
- 96 Additional hip fracture related deaths
- 21 Additional cost to Medicare to treat hip fractures alone
- 52.3% Undiagnosed and untreated osteoporosis in 2017
- $4M Additional cost to Medicare to treat hip fractures alone

Osteoporosis is under-diagnosed in the Medicare population according to CDC NHANES survey. DXA scans are the gold standard for osteoporosis diagnosis. Yet in 2007, CMS began significantly reducing reimbursement for DXA scans. This reduced the number of physicians in private offices offering DXA. As a result, fewer women and men were scanned resulting in a decline in osteoporosis diagnosis. Without diagnosis, fewer patients received effective treatment for low bone mass, which is now being reflected in increased fracture risk. Hip fractures are particularly expensive for CMS and destructive for the patients, as many will never be independently mobile again and 21.8% of all hip fracture patients die within a year of the fracture.

Braid-Forbes Health Research, LLC, Medicare Carrier 5% SAF. Cost model and projections by Peter M. Steven, PhD.
Florida
By the numbers: DXA Testing

2008 - Peak year for DXA scanning
70% - Decline to $42 reimbursement for DXA scans since 2006
31% - Decline in DXA office providers since 2008
478 - Fewer DXA physicians down from 1,538 to 1,060
28.8% - Undiagnosed and untreated osteoporosis in 2017

Estimated Consequences

354,118 - Fewer woman to receive a DXA scan than projected since 2008
4,461 - Additional hip fractures due to reduced screening
973 - Additional hip fracture related deaths
$185M - Additional cost to Medicare to treat hip fractures alone

Osteoporosis is under-diagnosed in the Medicare population according to CDC NHANES survey. DXA scans are the gold standard for osteoporosis diagnosis. Yet in 2007, CMS began significantly reducing reimbursement for DXA scans. This reduced the number of physicians in private offices offering DXA. As a result, fewer women and men were scanned resulting in a decline in osteoporosis diagnosis. Without diagnosis, fewer patients received effective treatment for low bone mass, which is now being reflected in increased fracture risk. Hip fractures are particularly expensive for CMS and destructive for the patients, as many will never be independently mobile again and 21.8% of all hip fracture patients die within a year of the fracture.

Braid-Forbes Health Research, LLC, Medicare Carrier 5% SAF. Cost model and projections by Peter M. Steven, PhD.
Georgia
By the numbers: DXA Testing

Estimated Consequences

- 70% Decline to $42 reimbursement for DXA scans since 2006
- 23.6% Decline in DXA office providers since 2006 from 674 to 515
- 15.4% Decline in DXA testing versus projection by 2017
- 46.6% Undiagnosed and untreated osteoporosis in 2017
- Fewer woman to receive a DXA scan than projected since 2008
- 76,215 Additional hip fractures due to reduced screening
- 960 Additional hip fracture related deaths
- 209 Additional cost to Medicare to treat hip fractures alone
- $40M

Osteoporosis is under-diagnosed in the Medicare population according to CDC NHANES survey. DXA scans are the gold standard for osteoporosis diagnosis. Yet in 2007, CMS began significantly reducing reimbursement for DXA scans. This reduced the number of physicians in private offices offering DXA. As a result, fewer women and men were scanned resulting in a decline in osteoporosis diagnosis. Without diagnosis, fewer patients received effective treatment for low bone mass, which is now being reflected in increased fracture risk. Hip fractures are particularly expensive for CMS and destructive for the patients, as many will never be independently mobile again and 21.8% of all hip fracture patients die within a year of the fracture.

Braid-Forbes Health Research, LLC, Medicare Carrier 5% SAF. Cost model and projections by Peter M. Steven, PhD.
## Hawaii

**By the numbers: DXA Testing**

<table>
<thead>
<tr>
<th>Year</th>
<th>Description</th>
<th>Consequence</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>Peak year for DXA scanning</td>
<td></td>
</tr>
<tr>
<td>70%</td>
<td>Decline to $42 reimbursement for DXA scans since 2006</td>
<td>16,613 fewer women to receive a DXA scan than projected since 2008</td>
</tr>
<tr>
<td>41.8%</td>
<td>Decline in DXA office providers since 2006</td>
<td>209 additional hip fractures due to reduced screening</td>
</tr>
<tr>
<td>25</td>
<td>Fewer DXA physicians down from 60 to 35</td>
<td>46 additional hip fracture related deaths</td>
</tr>
<tr>
<td>9.5%</td>
<td>Undiagnosed and untreated osteoporosis in 2017</td>
<td>$9M additional cost to Medicare to treat hip fractures alone</td>
</tr>
</tbody>
</table>

Osteoporosis is under-diagnosed in the Medicare population according to CDC NHANES survey. DXA scans are the gold standard for osteoporosis diagnosis. Yet in 2007, CMS began significantly reducing reimbursement for DXA scans. This reduced the number of physicians in private offices offering DXA. As a result, fewer women and men were scanned resulting in a decline in osteoporosis diagnosis. Without diagnosis, fewer patients received effective treatment for low bone mass, which is now being reflected in increased fracture risk. Hip fractures are particularly expensive for CMS and destructive for the patients, as many will never be independently mobile again and 21.8% of all hip fracture patients die within a year of the fracture.

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Braid-Forbes Health Research, LLC, Medicare Carrier 5% SAF. Cost model and projections by Peter M. Steven, PhD.
Indiana
By the numbers: *DXA Testing*

### Estimated Consequences

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Description</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>70%</td>
<td>Decline to $42 reimbursement for DXA scans since 2006</td>
<td></td>
</tr>
<tr>
<td>51%</td>
<td>Decline in DXA office providers since 2008</td>
<td></td>
</tr>
<tr>
<td>217</td>
<td>Fewer DXA physicians down from 420 to 203</td>
<td></td>
</tr>
<tr>
<td>49.4%</td>
<td>Undiagnosed and untreated osteoporosis in 2017</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fewer woman to receive a DXA scan than projected since 2008</td>
<td>98,196</td>
</tr>
<tr>
<td></td>
<td>Additional hip fractures due to reduced screening</td>
<td>1,237</td>
</tr>
<tr>
<td></td>
<td>Additional hip fracture related deaths</td>
<td>270</td>
</tr>
<tr>
<td></td>
<td>Additional cost to Medicare to treat hip fractures alone</td>
<td>$51M</td>
</tr>
</tbody>
</table>

Osteoporosis is under-diagnosed in the Medicare population according to CDC NHANES survey. DXA scans are the gold standard for osteoporosis diagnosis. Yet in 2007, CMS began significantly reducing reimbursement for DXA scans. This reduced the number of physicians in private offices offering DXA. As a result, fewer women and men were scanned resulting in a decline in osteoporosis diagnosis. Without diagnosis, fewer patients received effective treatment for low bone mass, which is now being reflected in increased fracture risk. Hip fractures are particularly expensive for CMS and destructive for the patients, as many will never be independently mobile again and 21.8% of all hip fracture patients die within a year of the fracture.

*Braid-Forbes Health Research, LLC, Medicare Carrier 5% SAF. Cost model and projections by Peter M. Steven, PhD.*
## Iowa

By the numbers: *DXA Testing*

### Estimated Consequences

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Description</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>70%</td>
<td>Decline to $42 reimbursement for DXA scans since 2006</td>
<td></td>
</tr>
<tr>
<td>28.3%</td>
<td>Decline in DXA office providers since 2007</td>
<td></td>
</tr>
<tr>
<td>63</td>
<td>Fewer DXA physicians down from 223 to 160</td>
<td></td>
</tr>
<tr>
<td>54.4%</td>
<td>Undiagnosed and untreated osteoporosis in 2017</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fewer woman to receive a DXA scan than projected since 2008</td>
<td>22,844</td>
</tr>
<tr>
<td></td>
<td>Additional hip fractures due to reduced screening</td>
<td>288</td>
</tr>
<tr>
<td></td>
<td>Additional hip fracture related deaths</td>
<td>63</td>
</tr>
<tr>
<td></td>
<td>Additional cost to Medicare to treat hip fractures alone</td>
<td>$12M</td>
</tr>
</tbody>
</table>

Osteoporosis is under-diagnosed in the Medicare population according to CDC NHANES survey. DXA scans are the gold standard for osteoporosis diagnosis. Yet in 2007, CMS began significantly reducing reimbursement for DXA scans. This reduced the number of physicians in private offices offering DXA. As a result, fewer women and men were scanned resulting in a decline in osteoporosis diagnosis. Without diagnosis, fewer patients received effective treatment for low bone mass, which is now being reflected in increased fracture risk. Hip fractures are particularly expensive for CMS and destructive for the patients, as many will never be independently mobile again and 21.8% of all hip fracture patients die within a year of the fracture.

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Braid-Forbes Health Research, LLC, Medicare Carrier 5% SAF. Cost model and projections by Peter M. Steven, PhD.
Kentucky
By the numbers: DXA Testing

<table>
<thead>
<tr>
<th>Year</th>
<th>Description</th>
<th>Estimated Consequences</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>Peak year for DXA scanning</td>
<td>Fewer woman to receive a DXA scan than projected since 2008</td>
</tr>
<tr>
<td>70%</td>
<td>Decline to $42 reimbursement for DXA scans since 2006</td>
<td>83,001</td>
</tr>
<tr>
<td>45.6%</td>
<td>Decline in DXA office providers since 2006</td>
<td>1,046</td>
</tr>
<tr>
<td>178</td>
<td>Fewer DXA physicians down from 390 to 212</td>
<td>228</td>
</tr>
<tr>
<td>54.3%</td>
<td>Undiagnosed and untreated osteoporosis in 2017</td>
<td>$43M</td>
</tr>
</tbody>
</table>

Osteoporosis is under-diagnosed in the Medicare population according to CDC NHANES survey. DXA scans are the gold standard for osteoporosis diagnosis. Yet in 2007, CMS began significantly reducing reimbursement for DXA scans. This reduced the number of physicians in private offices offering DXA. As a result, fewer women and men were scanned resulting in a decline in osteoporosis diagnosis. Without diagnosis, fewer patients received effective treatment for low bone mass, which is now being reflected in increased fracture risk. Hip fractures are particularly expensive for CMS and destructive for the patients, as many will never be independently mobile again and 21.8% of all hip fracture patients die within a year of the fracture.

_Braid-Forbes Health Research, LLC, Medicare Carrier 5% SAF. Cost model and projections by Peter M. Steven, PhD._
2009 Peak year for DXA scanning

70% Decline to $42 reimbursement for DXA scans since 2006

43.1% Decline in DXA office providers since 2005

162 Fewer DXA physicians down from 376 to 214

47.4% Undiagnosed and untreated osteoporosis in 2017

Estimated Consequences

80,779 Fewer woman to receive a DXA scan than projected since 2008

1,018 Additional hip fractures due to reduced screening

222 Additional hip fracture related deaths

$42M Additional cost to Medicare to treat hip fractures alone

Osteoporosis is under-diagnosed in the Medicare population according to CDC NHANES survey. DXA scans are the gold standard for osteoporosis diagnosis. Yet in 2007, CMS began significantly reducing reimbursement for DXA scans. This reduced the number of physicians in private offices offering DXA. As a result, fewer women and men were scanned resulting in a decline in osteoporosis diagnosis. Without diagnosis, fewer patients received effective treatment for low bone mass, which is now being reflected in increased fracture risk. Hip fractures are particularly expensive for CMS and destructive for the patients, as many will never be independently mobile again and 21.8% of all hip fracture patients die within a year of the fracture.
Maine
By the numbers: DXA Testing

2011
Peak year for DXA scanning

70%
Decline to $42 reimbursement for DXA scans since 2006

76.4%
Decline in DXA office providers since 2006

55
Fewer DXA physicians down from 72 to 17

58.4%
Undiagnosed and untreated osteoporosis in 2017

Estimated Consequences

32,006
Fewer woman to receive a DXA scan than projected since 2008

403
Additional hip fractures due to reduced screening

88
Additional hip fracture related deaths

$17M
Additional cost to Medicare to treat hip fractures alone

Osteoporosis is under-diagnosed in the Medicare population according to CDC NHANES survey. DXA scans are the gold standard for osteoporosis diagnosis. Yet in 2007, CMS began significantly reducing reimbursement for DXA scans. This reduced the number of physicians in private offices offering DXA. As a result, fewer women and men were scanned resulting in a decline in osteoporosis diagnosis. Without diagnosis, fewer patients received effective treatment for low bone mass, which is now being reflected in increased fracture risk. Hip fractures are particularly expensive for CMS and destructive for the patients, as many will never be independently mobile again and 21.8% of all hip fracture patients die within a year of the fracture.

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Maryland
By the numbers: DXA Testing

2009
Peak year for DXA scanning

70%
Decline to $42 reimbursement for DXA scans since 2006

28.4%
Decline in DXA office providers since 2008

124
Fewer DXA physicians down from 437 to 313

45.6%
Undiagnosed and untreated osteoporosis in 2017

Estimated Consequences

121,447
Fewer woman to receive a DXA scan than projected since 2008

1,530
Additional hip fractures due to reduced screening

334
Additional hip fracture related deaths

$64M
Additional cost to Medicare to treat hip fractures alone

Osteoporosis is under-diagnosed in the Medicare population according to CDC NHANES survey. DXA scans are the gold standard for osteoporosis diagnosis. Yet in 2007, CMS began significantly reducing reimbursement for DXA scans. This reduced the number of physicians in private offices offering DXA. As a result, fewer women and men were scanned resulting in a decline in osteoporosis diagnosis. Without diagnosis, fewer patients received effective treatment for low bone mass, which is now being reflected in increased fracture risk. Hip fractures are particularly expensive for CMS and destructive for the patients, as many will never be independently mobile again and 21.8% of all hip fracture patients die within a year of the fracture.

Braid-Forbes Health Research, LLC, Medicare Carrier 5% SAF. Cost model and projections by Peter M. Steven, PhD.
### Massachusetts

By the numbers: DXA Testing

<table>
<thead>
<tr>
<th>Year</th>
<th>Description</th>
<th>Consequence</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>Peak year for DXA scanning</td>
<td>124,934 fewer women to receive a DXA scan than projected since 2008</td>
</tr>
<tr>
<td>70%</td>
<td>Decline in DXA office providers since 2008</td>
<td>1,574 additional hip fractures due to reduced screening</td>
</tr>
<tr>
<td>50.7%</td>
<td>Fewer DXA physicians down from 286 to 141</td>
<td>343 additional hip fracture related deaths</td>
</tr>
<tr>
<td>145</td>
<td>Undiagnosed and untreated osteoporosis in 2017</td>
<td>$65M additional cost to Medicare to treat hip fractures alone</td>
</tr>
</tbody>
</table>

Osteoporosis is under-diagnosed in the Medicare population according to CDC NHANES survey. DXA scans are the gold standard for osteoporosis diagnosis. Yet in 2007, CMS began significantly reducing reimbursement for DXA scans. This reduced the number of physicians in private offices offering DXA. As a result, fewer women and men were scanned resulting in a decline in osteoporosis diagnosis. Without diagnosis, fewer patients received effective treatment for low bone mass, which is now being reflected in increased fracture risk. Hip fractures are particularly expensive for CMS and destructive for the patients, as many will never be independently mobile again and 21.8% of all hip fracture patients die within a year of the fracture.

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*Braid-Forbes Health Research, LLC, Medicare Carrier 5% SAF. Cost model and projections by Peter M. Steven, PhD.*
Minnesota
By the numbers: DXA Testing

2007: Peak year for DXA scanning
70%: Decline to $42 reimbursement for DXA scans since 2006
63%: Decline in DXA office providers since 2005
265: Fewer DXA physicians down from 418 to 153
49.2%: Undiagnosed and untreated osteoporosis in 2017

Estimated Consequences

- 71,058: Fewer women to receive a DXA scan than projected since 2008
- 895: Additional hip fractures due to reduced screening
- 195: Additional hip fracture related deaths
- $37M: Additional cost to Medicare to treat hip fractures alone

Osteoporosis is under-diagnosed in the Medicare population according to CDC NHANES survey. DXA scans are the gold standard for osteoporosis diagnosis. Yet in 2007, CMS began significantly reducing reimbursement for DXA scans. This reduced the number of physicians in private offices offering DXA. As a result, fewer women and men were scanned resulting in a decline in osteoporosis diagnosis. Without diagnosis, fewer patients received effective treatment for low bone mass, which is now being reflected in increased fracture risk. Hip fractures are particularly expensive for CMS and destructive for the patients, as many will never be independently mobile again and 21.8% of all hip fracture patients die within a year of the fracture.

Braid-Forbes Health Research, LLC, Medicare Carrier 5% SAF. Cost model and projections by Peter M. Steven, PhD.
## Mississippi

### Estimated Consequences

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Description</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>70%</td>
<td>Decline to $42 reimbursement for DXA scans since 2006</td>
<td></td>
</tr>
<tr>
<td>53.2%</td>
<td>Decline in DXA office providers since 2007</td>
<td></td>
</tr>
<tr>
<td>116</td>
<td>Fewer DXA physicians down from 218 to 102</td>
<td></td>
</tr>
<tr>
<td>55.3%</td>
<td>Undiagnosed and untreated osteoporosis in 2017</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fewer woman to receive a DXA scan than projected since 2008</td>
<td>22,152</td>
</tr>
<tr>
<td></td>
<td>Additional hip fractures due to reduced screening</td>
<td>279</td>
</tr>
<tr>
<td></td>
<td>Additional hip fracture related deaths</td>
<td>61</td>
</tr>
<tr>
<td></td>
<td>Additional cost to Medicare to treat hip fractures alone</td>
<td>$12M</td>
</tr>
</tbody>
</table>

Osteoporosis is under-diagnosed in the Medicare population according to CDC NHANES survey. DXA scans are the gold standard for osteoporosis diagnosis. Yet in 2007, CMS began significantly reducing reimbursement for DXA scans. This reduced the number of physicians in private offices offering DXA. As a result, fewer women and men were scanned resulting in a decline in osteoporosis diagnosis. Without diagnosis, fewer patients received effective treatment for low bone mass, which is now being reflected in increased fracture risk. Hip fractures are particularly expensive for CMS and destructive for the patients, as many will never be independently mobile again and 21.8% of all hip fracture patients die within a year of the fracture.

*Braid-Forbes Health Research, LLC, Medicare Carrier 5% SAF. Cost model and projections by Peter M. Steven, PhD.*
### Missouri

**By the numbers: DXA Testing**

<table>
<thead>
<tr>
<th>Estimated Consequences</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>70% Decline to $42 reimbursement for DXA scans since 2006</td>
<td>79,681 Fewer woman to receive a DXA scan than projected since 2008</td>
</tr>
<tr>
<td>34.2% Decline in DXA office providers since 2006</td>
<td>1,004 Additional hip fractures due to reduced screening</td>
</tr>
<tr>
<td>143 Fewer DXA physicians down from 419 to 276</td>
<td>219 Additional hip fracture related deaths</td>
</tr>
<tr>
<td>49% Undiagnosed and untreated osteoporosis in 2017</td>
<td>$42M Additional cost to Medicare to treat hip fractures alone</td>
</tr>
</tbody>
</table>

Osteoporosis is under-diagnosed in the Medicare population according to CDC NHANES survey. DXA scans are the gold standard for osteoporosis diagnosis. Yet in 2007, CMS began significantly reducing reimbursement for DXA scans. This reduced the number of physicians in private offices offering DXA. As a result, fewer women and men were scanned resulting in a decline in osteoporosis diagnosis. Without diagnosis, fewer patients received effective treatment for low bone mass, which is now being reflected in increased fracture risk. Hip fractures are particularly expensive for CMS and destructive for the patients, as many will never be independently mobile again and 21.8% of all hip fracture patients die within a year of the fracture.

*Braid-Forbes Health Research, LLC, Medicare Carrier 5% SAF. Cost model and projections by Peter M. Steven, PhD.*
### Montana

**By the numbers: DXA Testing**

<table>
<thead>
<tr>
<th>Year</th>
<th>Description</th>
<th>Consequence</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>Peak year for DXA scanning</td>
<td></td>
</tr>
<tr>
<td>70%</td>
<td>Decline to $42 reimbursement for DXA scans since 2006</td>
<td>Fewer woman to receive a DXA scan than projected since 2008</td>
</tr>
<tr>
<td>23.4%</td>
<td>Decline in DXA office providers since 2008</td>
<td>Additional hip fractures due to reduced screening</td>
</tr>
<tr>
<td>9</td>
<td>Fewer DXA physicians down from 39 to 30</td>
<td>Additional hip fracture related deaths</td>
</tr>
<tr>
<td>49.2%</td>
<td>Undiagnosed and untreated osteoporosis in 2017</td>
<td>Additional cost to Medicare to treat hip fractures alone</td>
</tr>
</tbody>
</table>

| 19,260 |                                                                            | 243 | Additional cost to Medicare to treat hip fractures alone |
| 53     |                                                                            | 53  |                                                            |
| $10M   |                                                                            | 53  |                                                            |

Osteoporosis is under-diagnosed in the Medicare population according to CDC NHANES survey. DXA scans are the gold standard for osteoporosis diagnosis. Yet in 2007, CMS began significantly reducing reimbursement for DXA scans. This reduced the number of physicians in private offices offering DXA. As a result, fewer women and men were scanned resulting in a decline in osteoporosis diagnosis. Without diagnosis, fewer patients received effective treatment for low bone mass, which is now being reflected in increased fracture risk. Hip fractures are particularly expensive for CMS and destructive for the patients, as many will never be independently mobile again and 21.8% of all hip fracture patients die within a year of the fracture.

*Cost model and projections by Peter M. Steven, PhD.*
Estimated Consequences

- Decline to $42 reimbursement for DXA scans since 2006
- Decline in DXA office providers since its peak
- Fewer DXA physicians down from 159 to 127
- Undiagnosed and untreated osteoporosis in 2017
- Fewer woman to receive a DXA scan than projected since 2008
- Additional hip fractures due to reduced screening
- Additional hip fracture related deaths
- Additional cost to Medicare to treat hip fractures alone

Osteoporosis is under-diagnosed in the Medicare population according to CDC NHANES survey. DXA scans are the gold standard for osteoporosis diagnosis. Yet in 2007, CMS began significantly reducing reimbursement for DXA scans. This reduced the number of physicians in private offices offering DXA. As a result, fewer women and men were scanned resulting in a decline in osteoporosis diagnosis. Without diagnosis, fewer patients received effective treatment for low bone mass, which is now being reflected in increased fracture risk. Hip fractures are particularly expensive for CMS and destructive for the patients, as many will never be independently mobile again and 21.8% of all hip fracture patients die within a year of the fracture.

*Cost model and projections by Peter M. Steven, PhD.*
Nevada
By the numbers: DXA Testing

Peak year for DXA scanning
Decline to $42 reimbursement for DXA scans since 2006
Decline in DXA office providers since 2008
Fewer DXA physicians down from 189 to 135
Undiagnosed and untreated osteoporosis in 2017

Estimated Consequences
Fewer woman to receive a DXA scan than projected since 2008
Additional hip fractures due to reduced screening
Additional hip fracture related deaths
Additional cost to Medicare to treat hip fractures alone

Osteoporosis is under-diagnosed in the Medicare population according to CDC NHANES survey. DXA scans are the gold standard for osteoporosis diagnosis. Yet in 2007, CMS began significantly reducing reimbursement for DXA scans. This reduced the number of physicians in private offices offering DXA. As a result, fewer women and men were scanned resulting in a decline in osteoporosis diagnosis. Without diagnosis, fewer patients received effective treatment for low bone mass, which is now being reflected in increased fracture risk. Hip fractures are particularly expensive for CMS and destructive for the patients, as many will never be independently mobile again and 21.8% of all hip fracture patients die within a year of the fracture.

Braid-Forbes Health Research, LLC, Medicare Carrier 5% SAF. Cost model and projections by Peter M. Steven, PhD.
### New Hampshire

**By the numbers: DXA Testing**

<table>
<thead>
<tr>
<th>Year</th>
<th>Statistics</th>
<th>2008</th>
<th>Estimated Consequences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peak year for DXA scanning</td>
<td></td>
<td></td>
<td>Fewer women to receive a DXA scan than projected since 2008</td>
</tr>
<tr>
<td>Decline to $42 reimbursement for DXA scans since 2006</td>
<td></td>
<td></td>
<td>Additional hip fractures due to reduced screening</td>
</tr>
<tr>
<td>Decline in DXA office providers since 2005 from 61 to 44</td>
<td></td>
<td></td>
<td>Additional hip fracture related deaths</td>
</tr>
<tr>
<td>Decline in DXA testing of Medicare women since 2008</td>
<td></td>
<td></td>
<td>Additional cost to Medicare to treat hip fractures alone</td>
</tr>
<tr>
<td>Undiagnosed and untreated osteoporosis in 2017</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Undiagnosed and untreated osteoporosis in 2017</td>
<td></td>
<td></td>
<td></td>
</tr>
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*Braid-Forbes Health Research, LLC, Medicare Carrier 5% SAF. Cost model and projections by Peter M. Steven, PhD.*
### New Jersey

**By the numbers: DXA Testing**

<table>
<thead>
<tr>
<th>Year</th>
<th>Description</th>
<th>Estimated Consequences</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>Peak year for DXA scanning</td>
<td>Fewer women to receive a DXA scan than projected since 2008</td>
</tr>
<tr>
<td>70%</td>
<td>Decline to $42 reimbursement for DXA scans since 2006</td>
<td>158,237</td>
</tr>
<tr>
<td>35.1%</td>
<td>Decline in DXA office providers since 2008</td>
<td>1,993</td>
</tr>
<tr>
<td>241</td>
<td>Fewer DXA physicians down from 686 to 445</td>
<td>435</td>
</tr>
<tr>
<td>37.4%</td>
<td>Undiagnosed and untreated osteoporosis in 2017</td>
<td>$83M</td>
</tr>
</tbody>
</table>

Osteoporosis is under-diagnosed in the Medicare population according to CDC NHANES survey. DXA scans are the gold standard for osteoporosis diagnosis. Yet in 2007, CMS began significantly reducing reimbursement for DXA scans. This reduced the number of physicians in private offices offering DXA. As a result, fewer women and men were scanned resulting in a decline in osteoporosis diagnosis. Without diagnosis, fewer patients received effective treatment for low bone mass, which is now being reflected in increased fracture risk. Hip fractures are particularly expensive for CMS and destructive for the patients, as many will never be independently mobile again and 21.8% of all hip fracture patients die within a year of the fracture.

*Cost model and projections by Peter M. Steven, PhD.*
New Mexico
By the numbers: DXA Testing

2005
Peak year for DXA scanning

70%
Decline to $42 reimbursement for DXA scans since 2006

30.3%
Decline in DXA office providers from its peak

20
Fewer DXA physicians down from 67 to 47

43.4%
Undiagnosed and untreated osteoporosis in 2017

Estimated Consequences

32,529
Fewer woman to receive a DXA scan than projected since 2008

410
Additional hip fractures due to reduced screening

89
Additional hip fracture related deaths

$17M
Additional cost to Medicare to treat hip fractures alone

Osteoporosis is under-diagnosed in the Medicare population according to CDC NHANES survey. DXA scans are the gold standard for osteoporosis diagnosis. Yet in 2007, CMS began significantly reducing reimbursement for DXA scans. This reduced the number of physicians in private offices offering DXA. As a result, fewer women and men were scanned resulting in a decline in osteoporosis diagnosis. Without diagnosis, fewer patients received effective treatment for low bone mass, which is now being reflected in increased fracture risk. Hip fractures are particularly expensive for CMS and destructive for the patients, as many will never be independently mobile again and 21.8% of all hip fracture patients die within a year of the fracture.

Braid-Forbes Health Research, LLC, Medicare Carrier 5% SAF. Cost model and projections by Peter M. Steven, PhD.
## New York

By the numbers: *DXA Testing*

<table>
<thead>
<tr>
<th>Year</th>
<th>Description</th>
<th>Consequence</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>Peak year for DXA scanning</td>
<td>306,949 fewer women to receive a DXA scan than projected since 2008</td>
</tr>
<tr>
<td>70%</td>
<td>Decline to $42 reimbursement for DXA scans since 2006</td>
<td>3,867 additional hip fractures due to reduced screening</td>
</tr>
<tr>
<td>40%</td>
<td>Decline in DXA office providers since 2005</td>
<td>843 additional hip fracture related deaths</td>
</tr>
<tr>
<td>529</td>
<td>Fewer DXA physicians down from 1,324 to 795</td>
<td>Additional cost to Medicare to treat hip fractures alone</td>
</tr>
<tr>
<td>34.4%</td>
<td>Undiagnosed and untreated osteoporosis in 2017</td>
<td>$161M additional cost to Medicare to treat hip fractures alone</td>
</tr>
</tbody>
</table>

Osteoporosis is under-diagnosed in the Medicare population according to CDC NHANES survey. DXA scans are the gold standard for osteoporosis diagnosis. Yet in 2007, CMS began significantly reducing reimbursement for DXA scans. This reduced the number of physicians in private offices offering DXA. As a result, fewer women and men were scanned resulting in a decline in osteoporosis diagnosis. Without diagnosis, fewer patients received effective treatment for low bone mass, which is now being reflected in increased fracture risk. Hip fractures are particularly expensive for CMS and destructive for the patients, as many will never be independently mobile again and 21.8% of all hip fracture patients die within a year of the fracture.

*Braid-Forbes Health Research, LLC, Medicare Carrier 5% SAF. Cost model and projections by Peter M. Steven, PhD.*
Estimated Consequences

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Description</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>70%</td>
<td>Decline to $42 reimbursement for DXA scans since 2006</td>
<td></td>
</tr>
<tr>
<td>25.9%</td>
<td>Decline in DXA office providers since 2008</td>
<td>134,698</td>
</tr>
<tr>
<td>249</td>
<td>Fewer DXA physicians down from 961 to 712</td>
<td>1,697</td>
</tr>
<tr>
<td>45.5%</td>
<td>Undiagnosed and untreated osteoporosis in 2017</td>
<td>370</td>
</tr>
<tr>
<td></td>
<td>Fewer woman to receive a DXA scan than projected since 2008</td>
<td>$71M</td>
</tr>
<tr>
<td></td>
<td>Additional hip fractures due to reduced screening</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Additional hip fracture related deaths</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Additional cost to Medicare to treat hip fractures alone</td>
<td></td>
</tr>
</tbody>
</table>

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*Braid-Forbes Health Research, LLC, Medicare Carrier 5% SAF. Cost model and projections by Peter M. Steven, PhD.*
Estimated Consequences

- **70%** Decline to $42 reimbursement for DXA scans since 2006
- **60.3%** Decline in DXA office providers since 2007
- **26** Fewer DXA physicians down from 43 to 17
- **48.7%** Undiagnosed and untreated osteoporosis in 2017

- **11,333** Fewer woman to receive a DXA scan than projected since 2008
- **143** Additional hip fractures due to reduced screening
- **31** Additional hip fracture related deaths
- **$6M** Additional cost to Medicare to treat hip fractures alone

Osteoporosis is under-diagnosed in the Medicare population according to CDC NHANES survey. DXA scans are the gold standard for osteoporosis diagnosis. Yet in 2007, CMS began significantly reducing reimbursement for DXA scans. This reduced the number of physicians in private offices offering DXA. As a result, fewer women and men were scanned resulting in a decline in osteoporosis diagnosis. Without diagnosis, fewer patients received effective treatment for low bone mass, which is now being reflected in increased fracture risk. Hip fractures are particularly expensive for CMS and destructive for the patients, as many will never be independently mobile again and 21.8% of all hip fracture patients die within a year of the fracture.

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Braid-Forbes Health Research, LLC, Medicare Carrier 5% SAF. Cost model and projections by Peter M. Steven, PhD.
Oklahoma
By the numbers: DXA Testing

2007 Peak year for DXA scanning
70% Decline to $42 reimbursement for DXA scans since 2006
42.4% Decline in DXA office providers since 2007
118 Fewer DXA physicians down from 278 to 160
51.7% Undiagnosed and untreated osteoporosis in 2017

Estimated Consequences

78,846 Fewer women to receive a DXA scan than projected since 2008
993 Additional hip fractures due to reduced screening
217 Additional hip fracture related deaths
$41M Additional cost to Medicare to treat hip fractures alone

Osteoporosis is under-diagnosed in the Medicare population according to CDC NHANES survey. DXA scans are the gold standard for osteoporosis diagnosis. Yet in 2007, CMS began significantly reducing reimbursement for DXA scans. This reduced the number of physicians in private offices offering DXA. As a result, fewer women and men were scanned resulting in a decline in osteoporosis diagnosis. Without diagnosis, fewer patients received effective treatment for low bone mass, which is now being reflected in increased fracture risk. Hip fractures are particularly expensive for CMS and destructive for the patients, as many will never be independently mobile again and 21.8% of all hip fracture patients die within a year of the fracture.

Braid-Forbes Health Research, LLC, Medicare Carrier 5% SAF. Cost model and projections by Peter M. Steven, PhD.
Oregon
By the numbers: DXA Testing

<table>
<thead>
<tr>
<th>Estimated Consequences</th>
<th>70% Decline to $42 reimbursement for DXA scans since 2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>31.1% Decline since peak in office physicians from 181 to 125</td>
<td>24,675 Fewer woman to receive a DXA scan than projected since 2008</td>
</tr>
<tr>
<td>20.5% Decline in DXA testing versus projection by 2017</td>
<td>311 Additional hip fractures due to reduced screening</td>
</tr>
<tr>
<td>52.6% Undiagnosed and untreated osteoporosis in 2017</td>
<td>68 Additional hip fracture related deaths</td>
</tr>
</tbody>
</table>

Osteoporosis is under-diagnosed in the Medicare population according to CDC NHANES survey. DXA scans are the gold standard for osteoporosis diagnosis. Yet in 2007, CMS began significantly reducing reimbursement for DXA scans. This reduced the number of physicians in private offices offering DXA. As a result, fewer women and men were scanned resulting in a decline in osteoporosis diagnosis. Without diagnosis, fewer patients received effective treatment for low bone mass, which is now being reflected in increased fracture risk. Hip fractures are particularly expensive for CMS and destructive for the patients, as many will never be independently mobile again and 21.8% of all hip fracture patients die within a year of the fracture.

*Braid-Forbes Health Research, LLC, Medicare Carrier 5% SAF. Cost model and projections by Peter M. Steven, PhD.*
Pennsylvania
By the numbers: DXA Testing

Estimated Consequences

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Description</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>70%</td>
<td>Decline to $42 reimbursement for DXA scans since 2006</td>
<td>$42</td>
</tr>
<tr>
<td>56.9%</td>
<td>Decline in DXA office providers since 2006</td>
<td>1,636</td>
</tr>
<tr>
<td>20.9%</td>
<td>Decline in DXA testing versus projection by 2017</td>
<td>357</td>
</tr>
<tr>
<td>39.5%</td>
<td>Undiagnosed and untreated osteoporosis in 2017</td>
<td>$68M</td>
</tr>
<tr>
<td></td>
<td>Fewer woman to receive a DXA scan than projected since 2008</td>
<td>129,835</td>
</tr>
<tr>
<td></td>
<td>Additional hip fractures due to reduced screening</td>
<td>1,636</td>
</tr>
<tr>
<td></td>
<td>Additional hip fracture related deaths</td>
<td>357</td>
</tr>
<tr>
<td></td>
<td>Additional cost to Medicare to treat hip fractures alone</td>
<td>$68M</td>
</tr>
</tbody>
</table>

Osteoporosis is under-diagnosed in the Medicare population according to CDC NHANES survey. DXA scans are the gold standard for osteoporosis diagnosis. Yet in 2007, CMS began significantly reducing reimbursement for DXA scans. This reduced the number of physicians in private offices offering DXA. As a result, fewer women and men were scanned resulting in a decline in osteoporosis diagnosis. Without diagnosis, fewer patients received effective treatment for low bone mass, which is now being reflected in increased fracture risk. Hip fractures are particularly expensive for CMS and destructive for the patients, as many will never be independently mobile again and 21.8% of all hip fracture patients die within a year of the fracture.

Braid-Forbes Health Research, LLC, Medicare Carrier 5% SAF. Cost model and projections by Peter M. Steven, PhD.
Rhode Island
By the numbers: DXA Testing

2009
Peak year for DXA scanning

Decline to $42 reimbursement for DXA scans since 2006

Decline in DXA office providers since 2011 from 93 to 69

Decline in DXA testing versus projection by 2017

Undiagnosed and untreated osteoporosis in 2017

Estimated Consequences

Fewer woman to receive a DXA scan than projected since 2008

Additional hip fractures due to reduced screening

Additional hip fracture related deaths

Additional cost to Medicare to treat hip fractures alone

13,111

165

36

$7M

Osteoporosis is under-diagnosed in the Medicare population according to CDC NHANES survey. DXA scans are the gold standard for osteoporosis diagnosis. Yet in 2007, CMS began significantly reducing reimbursement for DXA scans. This reduced the number of physicians in private offices offering DXA. As a result, fewer women and men were scanned resulting in a decline in osteoporosis diagnosis. Without diagnosis, fewer patients received effective treatment for low bone mass, which is now being reflected in increased fracture risk. Hip fractures are particularly expensive for CMS and destructive for the patients, as many will never be independently mobile again and 21.8% of all hip fracture patients die within a year of the fracture.

Braid-Forbes Health Research, LLC, Medicare Carrier 5% SAF. Cost model and projections by Peter M. Steven, PhD.
### South Carolina

**By the numbers: DXA Testing**

<table>
<thead>
<tr>
<th>2010</th>
<th>Peak year for DXA scanning</th>
</tr>
</thead>
<tbody>
<tr>
<td>70%</td>
<td>Decline to $42 reimbursement for DXA scans since 2006</td>
</tr>
<tr>
<td>44.3%</td>
<td>Decline in DXA office providers since 2008 from 440 to 245</td>
</tr>
<tr>
<td>23.8%</td>
<td>Decline in DXA testing versus projection by 2017</td>
</tr>
<tr>
<td>49.2%</td>
<td>Undiagnosed and untreated osteoporosis in 2017</td>
</tr>
</tbody>
</table>

### Estimated Consequences

| 69,479 | Fewer woman to receive a DXA scan than projected since 2008 |
| 875    | Additional hip fractures due to reduced screening |
| 191    | Additional hip fracture related deaths |
| $36M   | Additional cost to Medicare to treat hip fractures alone |

Osteoporosis is under-diagnosed in the Medicare population according to CDC NHANES survey. DXA scans are the gold standard for osteoporosis diagnosis. Yet in 2007, CMS began significantly reducing reimbursement for DXA scans. This reduced the number of physicians in private offices offering DXA. As a result, fewer women and men were scanned resulting in a decline in osteoporosis diagnosis. Without diagnosis, fewer patients received effective treatment for low bone mass, which is now being reflected in increased fracture risk. Hip fractures are particularly expensive for CMS and destructive for the patients, as many will never be independently mobile again and 21.8% of all hip fracture patients die within a year of the fracture.

*Braid-Forbes Health Research, LLC, Medicare Carrier 5% SAF. Cost model and projections by Peter M. Steven, PhD.*
South Dakota
By the numbers: DXA Testing

**Estimated Consequences**

- **70%** Decline to $42 reimbursement for DXA scans since 2006
- **62.6%** Decline in DXA office providers since 2009
- **74** Fewer DXA physicians down from 118 to 44
- **51.1%** Undiagnosed and untreated osteoporosis in 2017
- **14,323** Fewer woman to receive a DXA scan than projected since 2008
- **180** Additional hip fractures due to reduced screening
- **39** Additional hip fracture related deaths
- **$8M** Additional cost to Medicare to treat hip fractures alone

Osteoporosis is under-diagnosed in the Medicare population according to CDC NHANES survey. DXA scans are the gold standard for osteoporosis diagnosis. Yet in 2007, CMS began significantly reducing reimbursement for DXA scans. This reduced the number of physicians in private offices offering DXA. As a result, fewer women and men were scanned resulting in a decline in osteoporosis diagnosis. Without diagnosis, fewer patients received effective treatment for low bone mass, which is now being reflected in increased fracture risk. Hip fractures are particularly expensive for CMS and destructive for the patients, as many will never be independently mobile again and 21.8% of all hip fracture patients die within a year of the fracture.

_Braid-Forbes Health Research, LLC, Medicare Carrier 5% SAF. Cost model and projections by Peter M. Steven, PhD._
Tennessee
By the numbers: DXA Testing

Estimated Consequences

70%
Decline to $42 reimbursement for DXA scans since 2006

64,127
Fewer woman to receive a DXA scan than projected since 2008

26.1%
Decline in DXA office providers since 2008 from 681 to 503

808
Additional hip fractures due to reduced screening

18.9%
Decline in DXA testing versus projection by 2017

176
Additional hip fracture related deaths

49.7
Undiagnosed and untreated osteoporosis in 2017

$34M
Additional cost to Medicare to treat hip fractures alone

Osteoporosis is under-diagnosed in the Medicare population according to CDC NHANES survey. DXA scans are the gold standard for osteoporosis diagnosis. Yet in 2007, CMS began significantly reducing reimbursement for DXA scans. This reduced the number of physicians in private offices offering DXA. As a result, fewer women and men were scanned resulting in a decline in osteoporosis diagnosis. Without diagnosis, fewer patients received effective treatment for low bone mass, which is now being reflected in increased fracture risk. Hip fractures are particularly expensive for CMS and destructive for the patients, as many will never be independently mobile again and 21.8% of all hip fracture patients die within a year of the fracture.

Braid-Forbes Health Research, LLC, Medicare Carrier 5% SAF. Cost model and projections by Peter M. Steven, PhD.
## Texas

**By the numbers: DXA Testing**

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
<th>Percentage</th>
<th>Estimated Consequences</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>Peak year for DXA scanning</td>
<td></td>
<td>Fewer woman to receive a DXA scan than projected since 2008</td>
</tr>
<tr>
<td>70%</td>
<td>Decline to $42 reimbursement for DXA scans since 2006</td>
<td></td>
<td>Additional hip fractures due to reduced screening</td>
</tr>
<tr>
<td>36%</td>
<td>Decline in DXA office providers since 2008</td>
<td></td>
<td>Additional hip fracture related deaths</td>
</tr>
<tr>
<td>696</td>
<td>Fewer DXA physicians down from 1,933 to 1,237</td>
<td></td>
<td>Additional cost to Medicare to treat hip fractures alone</td>
</tr>
<tr>
<td>41.3%</td>
<td>Undiagnosed and untreated osteoporosis in 2017</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Estimated Consequences

- **290,073**: Fewer women to receive a DXA scan than projected since 2008
- **3,654**: Additional hip fractures due to reduced screening
- **797**: Additional hip fracture related deaths
- **$152M**: Additional cost to Medicare to treat hip fractures alone

Osteoporosis is under-diagnosed in the Medicare population according to CDC NHANES survey. DXA scans are the gold standard for osteoporosis diagnosis. Yet in 2007, CMS began significantly reducing reimbursement for DXA scans. This reduced the number of physicians in private offices offering DXA. As a result, fewer women and men were scanned resulting in a decline in osteoporosis diagnosis. Without diagnosis, fewer patients received effective treatment for low bone mass, which is now being reflected in increased fracture risk. Hip fractures are particularly expensive for CMS and destructive for the patients, as many will never be independently mobile again and 21.8% of all hip fracture patients die within a year of the fracture.

*Braid-Forbes Health Research, LLC, Medicare Carrier 5% SAF. Cost model and projections by Peter M. Steven, PhD.*
Osteoporosis is under-diagnosed in the Medicare population according to CDC NHANES survey. DXA scans are the gold standard for osteoporosis diagnosis. Yet in 2007, CMS began significantly reducing reimbursement for DXA scans. This reduced the number of physicians in private offices offering DXA. As a result, fewer women and men were scanned resulting in a decline in osteoporosis diagnosis. Without diagnosis, fewer patients received effective treatment for low bone mass, which is now being reflected in increased fracture risk. Hip fractures are particularly expensive for CMS and destructive for the patients, as many will never be independently mobile again and 21.8% of all hip fracture patients die within a year of the fracture.
Vermont
By the numbers: DXA Testing

2009
Peak year for DXA scanning

70%
Decline to $42 reimbursement for DXA scans since 2006

19.5%
Decline in DXA office providers since its peak from 14 to 11

17.0%
Decline in DXA testing of Medicare women since its peak

68.6%
Undiagnosed and untreated osteoporosis in 2017

16,639
Fewer woman to receive a DXA scan than projected since 2008

210
Additional hip fractures due to reduced screening

46
Additional hip fracture related deaths

$9M
Additional cost to Medicare to treat hip fractures alone

Osteoporosis is under-diagnosed in the Medicare population according to CDC NHANES survey. DXA scans are the gold standard for osteoporosis diagnosis. Yet in 2007, CMS began significantly reducing reimbursement for DXA scans. This reduced the number of physicians in private offices offering DXA. As a result, fewer women and men were scanned resulting in a decline in osteoporosis diagnosis. Without diagnosis, fewer patients received effective treatment for low bone mass, which is now being reflected in increased fracture risk. Hip fractures are particularly expensive for CMS and destructive for the patients, as many will never be independently mobile again and 21.8% of all hip fracture patients die within a year of the fracture.

Braid-Forbes Health Research, LLC, Medicare Carrier 5% SAF. Cost model and projections by Peter M. Steven, PhD.
## Virginia

### By the numbers: DXA Testing

<table>
<thead>
<tr>
<th>Year</th>
<th>Event Description</th>
<th>Estimated Consequences</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>Peak year for DXA scanning</td>
<td>Fewer women to receive a DXA scan than projected since 2008</td>
</tr>
<tr>
<td>70%</td>
<td>Decline to $42 reimbursement for DXA scans since 2006</td>
<td>Additional hip fractures due to reduced screening</td>
</tr>
<tr>
<td>35.5%</td>
<td>Decline in DXA office providers since 2006</td>
<td>Additional hip fracture related deaths</td>
</tr>
<tr>
<td>204</td>
<td>Fewer DXA physicians down from 575 to 371</td>
<td>Additional cost to Medicare to treat hip fractures alone</td>
</tr>
<tr>
<td>43.3</td>
<td>Undiagnosed and untreated osteoporosis in 2017</td>
<td></td>
</tr>
</tbody>
</table>

Osteoporosis is under-diagnosed in the Medicare population according to CDC NHANES survey. DXA scans are the gold standard for osteoporosis diagnosis. Yet in 2007, CMS began significantly reducing reimbursement for DXA scans. This reduced the number of physicians in private offices offering DXA. As a result, fewer women and men were scanned resulting in a decline in osteoporosis diagnosis. Without diagnosis, fewer patients received effective treatment for low bone mass, which is now being reflected in increased fracture risk. Hip fractures are particularly expensive for CMS and destructive for the patients, as many will never be independently mobile again and 21.8% of all hip fracture patients die within a year of the fracture.

*Braid-Forbes Health Research, LLC, Medicare Carrier 5% SAF. Cost model and projections by Peter M. Steven, PhD.*
### Estimated Consequences

<table>
<thead>
<tr>
<th>Year</th>
<th>Description</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>Peak year for DXA scanning</td>
<td></td>
</tr>
<tr>
<td>70%</td>
<td>Decline to $42 reimbursement for DXA scans since 2006</td>
<td>144,624</td>
</tr>
<tr>
<td>49.6%</td>
<td>Decline in the number of DXA office physicians since 2008</td>
<td>1,822</td>
</tr>
<tr>
<td>206</td>
<td>Fewer DXA physicians down from 416 to 210</td>
<td>397</td>
</tr>
<tr>
<td>55.2%</td>
<td>Undiagnosed and untreated osteoporosis in 2017</td>
<td>$76M</td>
</tr>
</tbody>
</table>

Fewer women to receive a DXA scan than projected since 2008

Additional hip fractures due to reduced screening

Additional hip fracture related deaths

Additional cost to Medicare to treat hip fractures alone

Osteoporosis is under-diagnosed in the Medicare population according to CDC NHANES survey. DXA scans are the gold standard for osteoporosis diagnosis. Yet in 2007, CMS began significantly reducing reimbursement for DXA scans. This reduced the number of physicians in private offices offering DXA. As a result, fewer women and men were scanned resulting in a decline in osteoporosis diagnosis. Without diagnosis, fewer patients received effective treatment for low bone mass, which is now being reflected in increased fracture risk. Hip fractures are particularly expensive for CMS and destructive for the patients, as many will never be independently mobile again and 21.8% of all hip fracture patients die within a year of the fracture.
West Virginia
By the numbers: DXA Testing

Estimated Consequences

- Fewer woman to receive a DXA scan than projected since 2008
  - 20,290

- Additional hip fractures due to reduced screening
  - 256

- Additional hip fracture related deaths
  - 56

- Additional cost to Medicare to treat hip fractures alone
  - $11M

Osteoporosis is under-diagnosed in the Medicare population according to CDC NHANES survey. DXA scans are the gold standard for osteoporosis diagnosis. Yet in 2007, CMS began significantly reducing reimbursement for DXA scans. This reduced the number of physicians in private offices offering DXA. As a result, fewer women and men were scanned resulting in a decline in osteoporosis diagnosis. Without diagnosis, fewer patients received effective treatment for low bone mass, which is now being reflected in increased fracture risk. Hip fractures are particularly expensive for CMS and destructive for the patients, as many will never be independently mobile again and 21.8% of all hip fracture patients die within a year of the fracture.

Braid-Forbes Health Research, LLC, Medicare Carrier 5% SAF. Cost model and projections by Peter M. Steven, PhD.
Estimated Consequences

- 70% Decline to $42 reimbursement for DXA scans since 2006
- 47% Decline in DXA office providers since 2009
- 159 Fewer DXA physicians down from 338 to 179
- 52.8% Undiagnosed and untreated osteoporosis in 2017
- Fewer woman to receive a DXA scan than projected since 2008
- 43,669
- 550 Additional hip fractures due to reduced screening
- 120 Additional hip fracture related deaths
- $23M Additional cost to Medicare to treat hip fractures alone

Osteoporosis is under-diagnosed in the Medicare population according to CDC NHANES survey. DXA scans are the gold standard for osteoporosis diagnosis. Yet in 2007, CMS began significantly reducing reimbursement for DXA scans. This reduced the number of physicians in private offices offering DXA. As a result, fewer women and men were scanned resulting in a decline in osteoporosis diagnosis. Without diagnosis, fewer patients received effective treatment for low bone mass, which is now being reflected in increased fracture risk. Hip fractures are particularly expensive for CMS and destructive for the patients, as many will never be independently mobile again and 21.8% of all hip fracture patients die within a year of the fracture.

Braid-Forbes Health Research, LLC, Medicare Carrier 5% SAF. Cost model and projections by Peter M. Steven, PhD.
Wyoming
By the numbers: DXA Testing

2008
Peak year for DXA scanning

70%
Decline to $42 reimbursement for DXA scans since 2006

53.8%
Decline in DXA office providers since 2007

19
Fewer DXA physicians down from 35 to 16

62.2%
Undiagnosed and untreated osteoporosis in 2017

Estimated Consequences

14,219
Fewer woman to receive a DXA scan than projected since 2008

179
Additional hip fractures due to reduced screening

39
Additional hip fracture related deaths

$7M
Additional cost to Medicare to treat hip fractures alone

Osteoporosis is under-diagnosed in the Medicare population according to CDC NHANES survey. DXA scans are the gold standard for osteoporosis diagnosis. Yet in 2007, CMS began significantly reducing reimbursement for DXA scans. This reduced the number of physicians in private offices offering DXA. As a result, fewer women and men were scanned resulting in a decline in osteoporosis diagnosis. Without diagnosis, fewer patients received effective treatment for low bone mass, which is now being reflected in increased fracture risk. Hip fractures are particularly expensive for CMS and destructive for the patients, as many will never be independently mobile again and 21.8% of all hip fracture patients die within a year of the fracture.

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