Effective Approaches for Managing Obesity and Chronic Disease

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Key Drivers of Rising Health Care Spending

- Doubling of obesity since the mid-1980s accounts for 10% of the rise in spending
- Lack of effective care coordination in many private plans and Medicaid. No care coordination so far in traditional Medicare
- Low rates of disease detection for some conditions (diabetes only 72% of total diabetes is diagnosed and treated)
Opportunities

• Medicare will spend about $500 billion over the next decade on potentially preventable hospital readmissions
• Medicaid faces the same set of issues, particularly with dual eligibles
• Build effective care coordination into the essential benefits in the exchanges
• Medicaid medical homes section 2703
Trends in Smoking and Obesity in the United States

Sources: Cigarette consumption data per adult per year are extracted from Tobacco Situation and Outlook Report Yearbook. U.S. Department of Agriculture, October 2007. Obesity data based on measured body mass index in NHANES from 1960 to 2010.
<table>
<thead>
<tr>
<th>Conditions</th>
<th>1987</th>
<th>2009</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mental Disorders</td>
<td>4.9%</td>
<td>14.3%</td>
<td>9.4%</td>
</tr>
<tr>
<td>Cancer</td>
<td>3.6%</td>
<td>6.2%</td>
<td>2.6%</td>
</tr>
<tr>
<td>Heart Disease</td>
<td>7.4%</td>
<td>9.6%</td>
<td>2.2%</td>
</tr>
<tr>
<td>Arthritis</td>
<td>7.2%</td>
<td>14.7%</td>
<td>7.5%</td>
</tr>
<tr>
<td>Hyperlipidemia</td>
<td>1.3%</td>
<td>19.3%</td>
<td>18.0%</td>
</tr>
<tr>
<td>Diabetes</td>
<td>3.9%</td>
<td>8.7%</td>
<td>4.8%</td>
</tr>
<tr>
<td>Hypertension</td>
<td>13.1%</td>
<td>24.3%</td>
<td>11.2%</td>
</tr>
</tbody>
</table>
Trends in the Prevalence and Incidence of Diagnosed Diabetes and in Prevalence of Obesity

* Prevalence for all ages; incidence for 18-79 years; and obesity for ≥20 years
* Data modeled by joinpoint regression (Source: Narayan)
Costs of Obesity

• Higher job absenteeism: $4.3 billion annually in U.S.

• Recent estimates show much higher than previously estimated:
  • $2,741 higher annual health care costs per obese adult
  • Aggregate national costs per year: $190 billion (20.6% of US national health expenditures)
Chart 1. Percent Distribution of Medicare Beneficiaries by Number of Chronic Conditions Treated

1987:
- 31.0% (0 conditions)
- 13.5% (1 condition)
- 15.8% (2 conditions)
- 16.1% (3 conditions)
- 14.1% (4 conditions)
- 9.5% (5 or more conditions)

1997:
- 39.5% (0 conditions)
- 13.6% (1 condition)
- 14.6% (2 conditions)
- 12.8% (3 conditions)
- 8.4% (4 conditions)
- 11.1% (5 or more conditions)

2009:
- 53.3% (0 conditions)
- 11.0% (1 condition)
- 13.2% (2 conditions)
- 6.7% (3 conditions)
- 6.4% (4 conditions)
- 9.5% (5 or more conditions)
Chart 2. Percent Distribution of Medicare Spending by Number of Chronic Conditions Treated

- **1987**
  - 52.2%
  - 4.0%
  - 7.4%
  - 10.1%
  - 14.5%
  - 15.4%

- **1997**
  - 65.3%
  - 5.0%
  - 4.4%
  - 6.4%
  - 10.1%
  - 13.3%

- **2009**
  - 77.5%
  - 0.4%
  - 1.4%
  - 6.7%
  - 9.5%

Legend:
- 0
- 1
- 2
- 3
- 4
- 5 or more
The Challenge

To develop a comprehensive approach that:

- **Averts** rising incidence of chronic illness
- Better **detect** existing chronic disease
- More effectively **manage** chronically ill patients to keep healthy
The Challenge

• Not all chronic conditions are potentially preventable!
• Many cardiovascular related conditions potentially are (T2 diabetes, hypertension) others likely are not (Parkinsons, Alzheimers, others)
Averting Disease

• Identify evidence-based lifestyle interventions and develop cultural adaptations within the US
  – Diabetes prevention program
  – Medicare coverage (none today)
  – Essential benefits
  – Medicaid
Current Medicare Coverage for Obesity

• Intensive behavioral therapy (IBT)
  – For one year, provided patients lose 6.6 lb in six months
    (~3% body weight, based on clinical trials)

• Bariatric surgery
  – For BMI ≥ 35 with one weight-related comorbidity

• Pharmacotherapy is excluded from Medicare Part D coverage, resulting in a significant treatment gap
  – Despite recent FDA approval of pharmacotherapy that can produce 10% to 15% weight loss
Options for Medicare

- Intensive lifestyle programs like the diabetes prevention program could be added (much broader than current IBT coverage)
- Pharmacotherapy-induced weight loss of 10% to 15% could produce significant savings for Medicare if covered
- The combination of lifestyle change and pharmacotherapy is generally more successful than either treatment alone
## Effect of Treatment on Incidence of Diabetes

<table>
<thead>
<tr>
<th></th>
<th>Placebo</th>
<th>Metformin</th>
<th>Lifestyle</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incidence of diabetes</td>
<td>11%</td>
<td>7.8%</td>
<td>4.8%</td>
</tr>
<tr>
<td>(percent per year)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reduction in incidence</td>
<td>31%</td>
<td>58%</td>
<td></td>
</tr>
<tr>
<td>compared with placebo</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number needed to treat to prevent 1 case in 3 years</td>
<td>----</td>
<td>13.9</td>
<td>6.9</td>
</tr>
</tbody>
</table>

The DPP Research Group, *NEJM* 346:393-403, 2002
DPP: Modest Weight Loss is the Goal

In DPP...

...every 1 kilogram of weight loss =
16% decrease in chances of getting diabetes

...just 5 kg (11 pounds) of weight loss =
58% decrease in chances of diabetes

DPP Lifestyle Program Summary

Treating 100 high risk adults (age 50) for 3 years...

- Prevents 15 new cases of Type 2 Diabetes\(^1\)
- Prevents 162 missed work days\(^2\)
- Avoids the need for BP/Chol pills in 11 people\(^3\)
- Avoids $91,400 in healthcare costs\(^4\)
- Adds the equivalent of 20 perfect years of health\(^5\)

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2 DPP Research Group. Diabetes Care. 2003 Sep;26(9):2693-4
Managing Chronic Disease

- Identify evidence-based models—approaches will differ depending on number and mix of conditions
- Health teams
- Palliative care
- Respite care
Managing Chronic Disease

- What works?
- Transitional care
- Comprehensive medication management
- Health coaching
- Team based care
- Ability to refer at risk patients to evidence based lifestyle programs
- Huge potential in Medicare, Medicaid and internationally
Managing Chronic Disease

- Providing evidence based palliative care
- Identifying effective respite care approaches
- Referrals and access to community-based prevention, health promotion, and disease prevention programs
- Stratifying health risks patients face and tailoring services accordingly—whole person orientation
Implementation Options

- Prevention and care coordination part of essential benefits—can broadly define expectations for plans in the exchanges
- Medicaid section 2703 medical homes option—90% two year federal match
- Include programs like DPP and build care coordination into traditional Medicare and use for dual eligibles
- Work with private health plans and employers on adopting DPP like programs as part of workplace wellness