

## Assumptions and Methodology

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### Cost of program per participant<sup>1</sup>

Cost to offer the National DPP may vary by geography and by performance incentive or reimbursement model. Costs may also need to account for administrative overhead and/or participant incentives. For example, some National DPP providers have value-based arrangements, where cost depends on milestone(s) achieved by the participant. The default value of \$450 is based on an average cost per participant to offer the yearlong program based on the mid-point of the range of \$400–500 for in-person and virtual diabetes prevention programs.

### Prevalence of prediabetes<sup>2,3</sup>

Prevalence rates may vary by demographics and the lab indicators used. The default value of 37% is based on fasting glucose or A1C levels.

### Anticipated enrollment<sup>4,5</sup>

Enrollment is defined as eligible participants attending at least 1 session. The default range of 10–50% represents a broad range, around the mid-point 30% enrollment rate. Enrollment rates may vary greatly. Many organizations have seen higher enrollment rates in the National DPP when they engage physicians and clinical teams to help refer eligible patients to the program.

### Anticipated completion<sup>5,6,7</sup>

The CDC defines completion as the number of adults who completed 12+ sessions (9 during the first 6 months and 3 during the second 6 months) of the year-long lifestyle change program as a percentage of the eligible enrollees. Available evidence suggests a default range of 40–70%.

### Potential savings<sup>8</sup>

Potential savings are based on AMA analysis of medical claims experience from Truven Health MarketScan<sup>®</sup> Lab Database, 2009–2012, where the base prediabetes population with an initial A1C between 5.7–6.4% is tracked over three years. Differences in medical spending are measured for the population that progresses to diagnosed diabetes compared with those who are not diagnosed with diabetes.

## Potential number of diabetes cases prevented by National DPP over 3 years<sup>8,9</sup>

The potential number of cases prevented is based on 3-year cumulative incidence rates of diabetes for the fixed cohort of the population with prediabetes using AMA analysis of Truven Health MarketScan® Lab Database, 2008–2012, and results from the 2002 DPP study that provide estimates on the impact of the National DPP intervention.

## Analytic Model

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In order to compute cost savings and number of diabetes cases prevented by a National DPP, this tool uses individual level data from the Truven Health MarketScan® Lab Database, which is a 4.4 million subsample of the Truven Health MarketScan® Treatment Pathways. The data contains integrated claims, lab test results, and enrollment information submitted to Truven under business agreements with more than 150 employers and 200 commercial insurance carriers. This analysis uses data from 2009–2012 for continuously enrolled adults between the ages of 18–64 years with a valid hemoglobin A1C (HbA1C) blood screen result, who were not diagnosed for diabetes or other conditions associated with diabetes (including gestational diabetes), who were not pregnant or not taking Metformin for at least 6 months prior to the screening, and who had a valid result reported within 6 months of the initial laboratory screening. In 2009, individuals were defined as having prediabetes if they had an initial A1C test result between 5.7–6.4%<sup>10,11</sup> and no prior diabetes diagnosis.

Total medical expenditures include payments made by both insurance providers and individuals and are reported in current year U.S. dollars (not adjusted for inflation). Following the initial HbA1C screen in 2009 (the base year), medical expenditures and diagnoses of diabetes were tracked for three years, 2010 to 2012. This three-year time horizon from diagnosis of prediabetes generally aligns with that of health plans and employers who see employee turnover or change health care plans every few years<sup>12</sup> when they are assessing return on investment (ROI) to National DPPs.

## References

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