

SUPPLEMENTARY DATA

**Supplementary Table 1.** Detailed resource utilization and cost of interventions by treatment year

a. Placebo

Activity/resource	Number of subjects	Percent = no. of units * % of subjects	Cost per unit (\$)	Time (hours)	Cost per subject (\$)
<b>Baseline</b>	1,082				
<b>Year 1 (DPP Year 1)</b>	1,082				
1st visit counseling		100%	32.00	0.50	16.00
3 month visit counseling (nurse)		100%	32.00	0.25	8.00
3 month visit counseling (dietitian)		12%	33.23	0.63	2.51
Phone calls		10%	32.00	0.16	0.51
Reminder calls		200%	24.77	0.08	3.96
1st visit materials					
<i>On your way to fitness</i>		100%	1.27		1.27
<i>Dietary Guide for Americans</i>		75%	1.47		1.10
Fasting glucose		96%	5.62		5.42
OGTT		96%	18.44		17.78
Venipuncture		289%	3.00		8.68
Overhead (69% of personnel)					21.38
Total Year 1					86.61
<b>Year 2 (DPP Year 2)</b>	1,044				
Annual visit		100%	32.00	0.33	10.56
Phone calls		10%	32.00	0.16	0.51
Reminder calls		100%	24.77	0.08	1.98
Fasting glucose		85%	5.62		4.79
OGTT		85%	18.44		15.70
Venipuncture		255%	3.00		7.66
Overhead (69% of personnel)					9.01
Total Year 2					50.21
<b>Year 3 (DPP Year 3)</b>	1,027				
Annual visit		100%	32.00	0.33	10.56
Phone calls		10%	32.00	0.16	0.51
Reminder calls		100%	24.77	0.08	1.98
Fasting glucose		75%	5.62		4.22
OGTT		75%	18.44		13.86
Venipuncture		226%	3.00		6.77
Overhead (69% of personnel)					9.01
Total Year 3					46.91

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<b>Year 4 (Bridge)</b>	990				
Closure visit		100%	30.43	1.00	30.43
Reminder call for closure visit		100%	24.77	0.08	1.98
Group lifestyle intervention		461%	9.13	1.00	42.05
Reminder calls		1600%	24.77	0.08	31.71
Phone calls		150%	32.00	0.16	7.68
Course materials		47%	11.41		5.36
Fasting glucose		69%	5.62		3.85
OGTT		69%	18.44		12.65
Venipuncture		206%	3.00		6.17
Overhead (69% of personnel)					78.56
Total Year 4					220.44
<b>Year 5 (DPPOS Year 1)</b>	946				
Healthy Lifestyle Program (HELP)		65%	13.29	1.00	8.68
Reminder calls		400%	24.77	0.08	7.93
Phone calls		150%	32.00	0.16	7.68
Fasting glucose		64%	5.62		3.59
OGTT		64%	18.44		11.79
Venipuncture		192%	3.00		5.76
Overhead (69% of personnel)					16.76
Total Year 5					62.18
<b>Year 6 (DPPOS Year 2)</b>	923				
Healthy Lifestyle Program (HELP)		68%	12.43	1.00	8.45
Reminder calls (4 pp*N)		400%	24.77	0.08	7.93
Phone calls		150%	32.00	0.16	7.68
Fasting glucose		61%	5.62		3.45
OGTT		61%	18.44		11.33
Venipuncture		184%	3.00		5.53
Overhead (69% of personnel)					16.60
Total Year 6					60.97
<b>Year 7 (DPPOS Year 3)</b>	903				
Healthy Lifestyle Program (HELP)		67%	11.98	1.00	8.06
Reminder calls		400%	24.77	0.08	7.93
Phone calls		150%	32.00	0.16	7.68
Fasting glucose		58%	5.62		3.26
OGTT		58%	18.44		10.70
Venipuncture		174%	3.00		5.22
Overhead (69% of personnel)					16.33
Total Year 7					59.18

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<b>Year 8 (DPPOS Year 4)</b>	892				
Healthy Lifestyle Program (HELP)		52%	11.85	1.00	6.10
Reminder calls		400%	24.77	0.08	7.93
Phone calls		150%	32.00	0.16	7.68
Fasting glucose		55%	5.62		3.09
OGTT		55%	18.44		10.15
Venipuncture		165%	3.00		4.95
Overhead (69% of personnel)					14.98
Total Year 8					54.89
<b>Year 9 (DPPOS Year 5)</b>	874				
Healthy Lifestyle Program (HELP)		59%	12.14	1.00	7.10
Reminder calls		400%	24.77	0.08	7.93
Phone calls		150%	32.00	0.16	7.68
Fasting glucose		52%	5.62		2.90
OGTT		52%	18.44		9.52
Venipuncture		155%	3.00		4.64
Overhead (69% of personnel)					15.67
Total Year 9					55.44
<b>Year 10 (DPPOS Year 6)</b>	855				
Healthy Lifestyle Program (HELP)		52%	14.50	1.00	7.48
Reminder calls		400%	24.77	0.08	7.93
Phone calls		150%	32.00	0.16	7.68
Fasting glucose		49%	5.62		2.73
OGTT		49%	18.44		8.97
Venipuncture		146%	3.00		4.38
Overhead (69% of personnel)					15.93
Total Year 10					55.10
Total Years 1-10					751.94



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Reminder calls		404%	24.77	0.08	8.01
Laboratory tests:					
Serum creatinine		84%	7.34		6.17
Hemoglobin/hematocrit		84%	6.78		5.70
Urine creatinine		0.4%	7.41		0.03
Fasting glucose		91%	5.62		5.09
OGTT		91%	18.44		16.71
Venipuncture		272%	3.00		8.15
Metformin					
0 tablet dose		16%	0.00		0.00
1 tablet dose		14%	54.75		7.67
2 tablet dose		70%	109.50		76.65
Toolbox		100%	17.00		17.00
Overhead (69% of personnel)					52.62
Total Year 2					294.10
<b>Year 3 (DPP Year 3)</b>	1,012				
Standard lifestyle intervention					
(Placebo (Table S1a) excluding labs)		100%	22.06		22.06
Follow-up visits: medication case mgr.		397%	32.00	0.33	41.92
medical assistant		246%	23.00	0.33	18.68
Dose-titration/restart visits		7%	32.00	0.33	0.74
Phone calls		135%	32.00	0.16	6.91
Reminder phone calls		404%	24.77	0.08	8.01
Laboratory tests:					
Serum creatinine		80%	7.34		5.87
Hemoglobin/hematocrit		80%	6.78		5.42
Urine creatinine		0.4%	7.41		0.03
Fasting glucose		83%	5.62		4.65
OGTT		83%	18.44		15.25
Venipuncture		248%	3.00		7.44
Metformin					
0 tablet dose		20%	0.00		0.00
1 tablet dose		12%	54.75		6.57
2 tablet dose		68%	109.50		74.46
Toolbox		100%	27.89		27.89
Overhead (69% of personnel)					52.62
Total Year 3					298.53
<b>Year 4 (Bridge)</b>	983				
Closure visit		100%	30.43	1.00	30.43
Reminder call for closure visit		100%	24.77	0.08	1.98

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Group lifestyle intervention		465%	9.13	1.00	42.48
Reminder calls		1600%	24.77	0.08	31.71
Course materials (462 total)		47%	11.41		5.36
Phone calls		150%	32.00	0.16	7.68
Fasting glucose		75%	5.62		4.21
OGTT		75%	18.44		13.81
Venipuncture		225%	3.00		6.74
Safety monitoring		59%	22.82		13.44
Metformin		59%	109.50		64.50
Overhead (69% of personnel)					78.85
Total Year 4					301.18
<b>Year 5 (DPPOS Year 1)</b>	941				
Healthy Lifestyle Program (HELP)		66%	13.29	1.00	8.82
Reminder calls		400%	24.77	0.08	7.93
Phone calls		150%	32.00	0.16	7.68
Fasting glucose		70%	5.62		3.96
OGTT		70%	18.44		12.99
Venipuncture		211%	3.00		6.34
Safety monitoring		55%	22.82		12.60
Metformin		55%	109.50		60.44
Overhead (69% of personnel)					16.86
Total Year 5					137.62
<b>Year 6 (DPPOS Year 2)</b>	906				
Healthy Lifestyle Program (HELP)		66%	12.43	1.00	8.17
Reminder calls		400%	24.77	0.08	7.93
Phone calls		150%	32.00	0.16	7.68
Fasting glucose		68%	5.62		3.84
OGTT		68%	18.44		12.60
Venipuncture		205%	3.00		6.15
Safety monitoring		55%	22.82		12.57
Metformin		55%	109.50		60.33
Overhead (69% of personnel)					16.40
Total Year 6					135.67
<b>Year 7 (DPPOS Year 3)</b>	890				
Healthy Lifestyle Program (HELP)		68%	11.98	1.00	8.13
Reminder calls		400%	24.77	0.08	7.93
Phone calls		150%	32.00	0.16	7.68
Fasting glucose		65%	5.62		3.64
OGTT		65%	18.44		11.93
Venipuncture		194%	3.00		5.82
Safety monitoring		57%	22.82		13.10

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Metformin		57%	109.50		62.85
Overhead (69% of personnel)					16.38
Total Year 7					137.47
<b>Year 8 (DPPOS Year 4)</b>	877				
Healthy Lifestyle Program (HELP)		54%	11.85	1.00	6.40
Reminder calls		400%	24.77	0.08	7.93
Phone calls		150%	32.00	0.16	7.68
Fasting glucose		61%	5.62		3.43
OGTT		61%	18.44		11.27
Venipuncture		183%	3.00		5.50
Safety monitoring		56%	22.82		12.80
Metformin		56%	109.50		61.43
Overhead (69% of personnel)					15.18
Total Year 8					131.63
<b>Year 9 (DPPOS Year 5)</b>	863				
Healthy Lifestyle Program (HELP)		60%	12.14	1.00	7.33
Reminder calls		400%	24.77	0.08	7.93
Phone calls		150%	32.00	0.16	7.68
Fasting glucose		58%	5.62		3.26
OGTT		58%	18.44		10.68
Venipuncture		174%	3.00		5.21
Safety monitoring		55%	22.82		12.53
Metformin		55%	109.50		60.12
Overhead (69% of personnel)					15.83
Total Year 9					130.56
<b>Year 10 (DPPOS Year 6)</b>	843				
Healthy Lifestyle Program (HELP)		56%	14.50	1.00	8.05
Reminder calls		400%	24.77	0.08	7.93
Phone calls (1.5*N)		150%	32.00	0.16	7.68
Fasting glucose		55%	5.62		3.11
OGTT		55%	18.44		10.19
Venipuncture		166%	3.00		4.98
Safety monitoring		55%	22.82		12.46
Metformin		55%	109.50		59.79
Overhead (69% of personnel)					16.32
Total Year 10					130.50
<b>Total Years 1-10</b>					2,281.15

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c. Lifestyle

Activity/resource	Number of subjects	Percent = no. of units * % of subjects	Cost per unit (\$)	Time (hours)	Cost per subject (\$)
<b>Baseline</b>	1,079				
<b>Year 1 (DPP Year 1)</b>	1,079				
Baseline history and physical		100%	135.15	1.00	135.15
Core curriculum		1,600%	29.86	1.00	477.76
Exercise test		256%	29.86	1.00	76.50
Supervised activity: care manager		171%	32.99	1.00	56.35
exercise trainer		36%	29.86	1.25	13.44
Lifestyle group sessions		765%	29.86	0.58	132.49
In-person visits		232%	29.86	0.25	17.32
Reminder calls		2,941%	24.77	0.08	58.28
Phone calls		19%	94.39	1.00	17.93
Fasting glucose		99%	5.62		5.57
OGTT		99%	18.44		18.27
Venipuncture		297%	3.00		8.92
Materials		100%	11.22		11.22
Toolbox		100%	129.32		129.32
Overhead (69% of personnel)					667.42
Total year 1					1,825.93
<b>Year 2 (DPP Year 2)</b>	1,039				
Supervised activity: care manager		256%	29.86	1.00	76.50
exercise trainer		171%	32.99	1.00	56.35
Lifestyle group sessions		72%	29.86	1.25	26.87
In-person visits		1,233%	29.86	0.58	213.54
Reminder calls		266%	29.86	0.25	19.86
Phone calls		1,745%	24.77	0.08	34.58
Fasting glucose		95%	5.62		5.34
OGTT		95%	18.44		17.53
Venipuncture		285%	3.00		8.56
Toolbox		100%	133.12		133.12
Overhead (69% of personnel)					295.11
Total year 2					887.37



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<b>Year 3 (DPP Year 3)</b>	1,020				
Supervised activity: care manager		256%	29.86	1.00	76.50
exercise trainer		171%	32.99	1.00	56.35
Lifestyle group sessions		72%	29.86	1.25	26.87
In-person visits		1,233%	29.86	0.58	213.54
Reminder phone calls		266%	29.86	0.25	19.86
Phone calls		1,745%	24.77	0.08	34.58
Fasting glucose		90%	5.62		5.05
OGTT		90%	18.44		16.58
Venipuncture		270%	3.00		8.09
Toolbox		100%	162.28		162.28
Overhead (69% of personnel)					295.11
Total year 3					914.81
<b>Year 4 (Bridge)</b>	978				
Closure visit		100%	30.43	1.00	30.43
Reminder call for closure visit		100%	24.77	0.08	1.98
Group lifestyle intervention		207%	9.13	1.00	18.87
Reminder calls		1,600%	24.77	0.08	31.71
Phone calls		150%	5.12	0.16	1.23
Fasting glucose		85%	5.62		4.75
OGTT		85%	18.44		15.59
Venipuncture		254%	3.00		7.61
Materials		27%	11.41		3.10
Overhead (69% of personnel)					58.11
Total Year 4					173.38
<b>Year 5 (DPPOS Year 1)</b>	933				
Healthy Lifestyle Program (HELP)		69%	13.29	1.00	9.20
Reminder calls (4 pp*N)		400%	24.77	0.08	7.93
BOOST		119%	22.82	1.00	27.20
Reminder calls		200%	24.77	0.08	3.96
Individual counseling		74%	12.68	1.00	9.45
Phone calls		150%	5.12	0.16	1.23
Fasting glucose		80%	5.62		4.50
OGTT		80%	18.44		14.76
Venipuncture		240%	3.00		7.21
Overhead (69% of personnel)					40.68
Total Year 5					126.11

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<b>Year 6 (DPPOS Year 2)</b>	901				
Healthy Lifestyle Program (HELP)		71%	12.43	1.00	8.86
Reminder calls		400%	24.77	0.08	7.93
BOOST		74%	22.82	1.00	16.94
Reminder calls		200%	24.77	0.08	3.96
Individual counseling		100%	12.68	1.00	12.68
Phone calls		150%	5.12	0.16	1.23
Fasting glucose		75%	5.62		4.20
OGTT		75%	18.44		13.79
Venipuncture		224%	3.00		6.73
Overhead (69% of personnel)					35.61
Total Year 6					111.94
<b>Year 7 (DPPOS Year 3)</b>	883				
Healthy Lifestyle Program (HELP)		84%	11.98	1.00	10.02
Reminder calls		400%	24.77	0.08	7.93
BOOST		95%	22.82	1.00	21.58
Reminder calls		200%	24.77	0.08	3.96
Individual counseling		100%	12.68	1.00	12.68
Phone calls		150%	5.12	0.16	1.23
Fasting glucose		70%	5.62		3.95
OGTT		70%	18.44		12.95
Venipuncture		211%	3.00		6.32
Incentive		100%	19.02		19.02
Overhead (69% of personnel)					39.60
Total Year 7					139.23
<b>Year 8 (DPPOS Year 4)</b>	873				
Healthy Lifestyle Program (HELP)		73%	11.85	1.00	8.67
Reminder calls		400%	24.77	0.08	7.93
BOOST		99%	22.82	1.00	22.64
Reminder calls		200%	24.77	0.08	3.96
Individual counseling		100%	12.68	1.00	12.68
Phone calls		150%	5.12	0.16	1.23
Fasting glucose		67%	5.62		3.77
OGTT		67%	18.44		12.36
Venipuncture		201%	3.00		6.03

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Incentive		100%	19.02		19.02
Overhead (69% of personnel)					39.41
Total Year 8					137.69
<b>Year 9 (DPPOS Year 5)</b>	855				
Healthy Lifestyle Program (HELP)		75%	12.14	1.00	9.04
Reminder calls		400%	24.77	0.08	7.93
BOOST		70%	22.82	1.00	15.91
Reminder calls		200%	24.77	0.08	3.96
Individual counseling		100%	12.68	1.00	12.68
Phone calls		150%	5.12	0.16	1.23
Fasting glucose		65%	5.62		3.63
OGTT		65%	18.44		11.93
Venipuncture		194%	3.00		5.82
Incentive		100%	19.02		19.02
Overhead (69% of personnel)					35.02
Total Year 9					126.17
<b>Year 10 (DPPOS Year 6)</b>	833				
Healthy Lifestyle Program (HELP)		68%	14.50	1.00	9.82
Reminder calls		400%	24.77	0.08	7.93
BOOST		78%	22.82	1.00	17.86
Reminder calls		200%	24.77	0.08	3.96
Individual counseling		100%	12.68	1.00	12.68
Phone calls		150%	5.12	0.16	1.23
Fasting glucose		61%	5.62		3.45
OGTT		61%	18.44		11.31
Venipuncture		184%	3.00		5.52
Incentive		100%	19.02		19.02
Overhead (69% of personnel)					36.90
Total Year 10					129.68
<b>Total Years 1-10</b>					4,572.31

SUPPLEMENTARY DATA

**Supplementary Table 2.** Sources of unit costs and their conversion to year 2010 U.S. dollars

Items	Unit	Cost (\$) (Mean)	Base year	Multiplier <sup>1</sup> (if applicable)	2010 Cost (\$)	Sources
<b>Direct medical costs</b>						
<i>DPP Personnel</i>						
Lifestyle case manager <sup>2</sup>	1 h	23.55	2000	1.2678	29.86	[5, 24]
Medication case manager <sup>2</sup>	1 h	25.24	2000	1.2678	32.00	[5, 24]
Exercise trainer <sup>2</sup>	1 h	26.02	2000	1.2678	32.99	[5, 24]
Dietician <sup>2</sup>	1 h	26.21	2000	1.2678	33.23	[5, 24]
Medical assistant <sup>2</sup>	1 h	18.14	2000	1.2678	23.00	[5, 24]
Secretary <sup>2</sup>	1 h	19.54	2000	1.2678	24.77	[5, 24]
<i>Materials</i>						
Educational and training material						
Lifestyle	1 set	8.85	2000	1.2678	11.22	[5, 24]
Metformin (in addition to placebo)	1 set	0.08	2000	1.2678	0.10	[5, 24]
Placebo	1 set	2.26	2000	1.2678	2.87	[5, 24]
Self monitoring blood glucose <sup>3</sup>					545.58	[25]
<i>Lab tests and procedures</i>						
Oral glucose tolerance test <sup>4</sup>	1				18.44	[26]
Fasting glucose <sup>5</sup>	1				5.62	[26]
Exercise stress tests <sup>6</sup>	1				94.39	[27]
Venipuncture <sup>7</sup>	1				3.00	[26]
Serum creatinine <sup>8</sup>	1				7.34	[26]

<sup>1</sup> General Consumer Price Index (CPI) used for inflation unless otherwise noted

<sup>2</sup> Median wage

<sup>3</sup> Annual cost Includes one meter every two years (\$34.38), 400 strips per year (\$470.88), and 400 lancets per year (\$40.32).

<sup>4</sup> Current Procedural Terminology (CPT): 82951, National limit

<sup>5</sup> CPT: 82947, National limit

<sup>6</sup> CPT: 93015

<sup>7</sup> CPT: 36415, Midpoint

<sup>8</sup> CPT: 82565, National limit

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Urine creatinine <sup>9</sup>	1				7.41	[26]
Hemoglobin/hemocrit <sup>10</sup>	1				6.78	[26]
HbA <sub>1c</sub> <sup>11</sup>	2/yr				27.80	[26]
Urine albumin-to-creatinine ratio <sup>12</sup>	1				15.70	[26]
Lipid panel <sup>13</sup>	1				14.20	[26]
Eye exam - initial exam yr 1 <sup>14</sup>	1				115.97	[27]
Eye exam – follow-up yr 2 <sup>15</sup>	1				62.87	[27]
<i>Medication</i>						
Metformin <sup>16</sup>	1 tablet				0.15	[25]
Prescription medications <sup>17</sup>	1 year/person	407.00	2000	1.4852	604.48	[5, 28]
<i>Bundled medical services</i>						
Hospital days <sup>17</sup>	1	1,853.00	2007	1.1031	2,044.04	[11, 28]
Emergency room visits <sup>17</sup>	1	696.00	2007	1.1031	767.76	[11, 28]
Urgent care visits <sup>17</sup>	1	331.00	2007	1.1031	365.13	[11, 28]
Outpatient visits <sup>17</sup>	1	132.00	2007	1.1031	145.61	[11, 28]
Calls to providers	1	20.00	2000	1.2678	25.36	[5, 24]
<b>Direct nonmedical costs</b>						
<i>Participant time</i>						
Travel time	1 h	22.30	2009	1.0182	22.71	[24, 29]
People who dislike exercise	1 h	22.30	2009	1.0182	22.71	[24, 29]
People who are neutral about exercise <sup>18</sup>	1 h	11.15	2009	1.0182	11.35	[24, 29]
People who like exercise	1 h	0.00	2009	1.0182	0.00	[24, 29]

<sup>9</sup> CPT: 82570, National limit

<sup>10</sup> CPT: 85014, 85018, National limit

<sup>11</sup> CPT: 83036, National limit. Cost is \$13.90 per HbA<sub>1c</sub> test.

<sup>12</sup> CPT: 82570, 82043, National limit

<sup>13</sup> CPT: 80061, National limit

<sup>14</sup> CPT: 92004

<sup>15</sup> CPT: 92012

<sup>16</sup> 2010 Red Book, Medicaid upper limit. For sensitivity analyses, average cost for all manufacturers \$1.14.

<sup>17</sup> Estimate from reference 5. Updated with Medical CPI

<sup>18</sup> Half average wage

SUPPLEMENTARY DATA

Shopping and cooking	1 h	22.30	2009	1.0182	22.71	[24, 29]
<i>Services</i>						
Exercise classes	1 week	16.60	2000	1.2678	21.05	[5, 24]
Health club	3 years	2,305.00	2000	1.2678	2,922.28	[5, 24]
Personal trainer	1 h	34.00	2000	1.2678	43.11	[5, 24]
Commercial weight loss classes	1 month	46.00	2000	1.2678	58.32	[5, 24]
<i>Fitness equipment</i>						
Exercise shoes	1 pair	73.27	2000	1.2678	92.89	[5, 24]
Bicycle	1	430.40	2000	1.2678	545.66	[5, 24]
Exercise videos	1	15.02	2000	1.2678	19.04	[5, 24]
Free weights	2	39.06	2000	1.2678	49.52	[5, 24]
Golf clubs	1 set	390.61	2000	1.2678	495.22	[5, 24]
Home gym	1	683.57	2000	1.2678	866.63	[5, 24]
Stationary bike	1	548.80	2000	1.2678	695.77	[5, 24]
Step	1 system	78.12	2000	1.2678	99.04	[5, 24]
Treadmill	1	1,100.00	2000	1.2678	1,394.58	[5, 24]
<i>Food equipment</i>						
Air popper	1	25.39	2000	1.2678	32.19	[5, 24]
Blender	1	39.70	2000	1.2678	50.33	[5, 24]
Cookbooks	1	25.39	2000	1.2678	32.19	[5, 24]
Food scale	1	24.41	2000	1.2678	30.95	[5, 24]
Freezer	1	449.54	2000	1.2678	569.93	[5, 24]
Microwave	1	155.04	2000	1.2678	196.56	[5, 24]
Mixer	1	132.46	2000	1.2678	167.93	[5, 24]
Steamer	1	31.01	2000	1.2678	39.31	[5, 24]
Wok	1 set	206.10	2000	1.2678	261.29	[5, 24]
<i>Food costs</i>						
Food at home	1 year	2,061.00	2009	1.0182	2,098.51	[24, 30]
Food away from home	1 year	1,868.00	2009	1.0182	1,902.00	[24, 30]
<i>Transportation costs</i>	1 mile				0.50	[31]

SUPPLEMENTARY DATA

<b>Indirect costs</b>						
Time lost from doing usual activity due to morbidity or mortality	1 day	129.64	2007	1.0529	136.50	[24, 32]
<i>Time costs associated with outpatient visits</i>						
Travel to and from visits	0.5800	22.30	2009	1.0182	13.17	[24, 29, 33]
Waiting for services	0.7000	22.30	2009	1.0182	15.89	[24, 29, 33]
Receiving services	1.2300	22.30	2009	1.0182	27.93	[24, 29, 33]
Calls to providers	0.1667	22.30	2009	1.0182	3.79	[5, 24, 29]
<i>Time costs associated with emergency department visits</i>						
Time spent in the emergency department	3.5667	22.30	2009	1.0182	80.98	[24, 29, 34]

SUPPLEMENTARY DATA

**Supplementary Table 3.** Undiscounted per capita direct medical costs of care outside the DPP/DPPOS and health utility scores by intervention group, study year, and diabetes status

Number of participants by diabetes status, intervention group and study year									
	Nondiabetic			Diabetic			Total		
Study Yr	Lifestyle	Metformin	Placebo	Lifestyle	Metformin	Placebo	Lifestyle	Metformin	Placebo
Baseline	1,079	1,073	1,082	0	0	0	1,079	1,073	1,082
1	1,069	1,062	1,043	10	11	39	1,079	1,073	1,082
2	988	944	889	51	98	155	1,039	1,042	1,044
3	917	837	772	103	175	255	1,020	1,012	1,027
4	827	736	679	151	247	311	978	983	990
5	747	663	605	186	278	341	933	941	946
6	674	619	567	227	287	356	901	906	923
7	620	576	524	263	314	379	883	890	903
8	585	536	491	288	341	401	873	877	892
9	553	500	451	302	363	423	855	863	874
10	511	466	416	322	377	439	833	843	855
Direct Medical Costs of Care Outside the DPP/DPPOS									
	Nondiabetic			Diabetic			Weighted average		
Study Yr	Lifestyle	Metformin	Placebo	Lifestyle	Metformin	Placebo	Lifestyle	Metformin	Placebo
1	\$1,795	\$1,935	\$1,978	\$5,799	\$5,350	\$2,705	\$1,832	\$1,970	\$2,004
2	\$2,258	\$2,289	\$2,106	\$3,389	\$2,637	\$3,724	\$2,314	\$2,322	\$2,346
3	\$2,020	\$2,243	\$2,431	\$3,808	\$3,290	\$3,638	\$2,201	\$2,424	\$2,731
4	\$2,271	\$2,329	\$2,490	\$3,626	\$3,055	\$3,693	\$2,480	\$2,512	\$2,868
5	\$2,040	\$2,151	\$2,337	\$3,328	\$3,078	\$3,339	\$2,297	\$2,425	\$2,698
6	\$2,542	\$2,463	\$2,582	\$3,446	\$4,525	\$3,527	\$2,770	\$3,116	\$2,946
7	\$2,416	\$2,672	\$2,422	\$3,721	\$3,732	\$3,775	\$2,804	\$3,046	\$2,990
8	\$2,855	\$2,520	\$2,657	\$4,923	\$4,003	\$4,018	\$3,537	\$3,097	\$3,269



SUPPLEMENTARY DATA

9	\$2,553	\$2,828	\$2,952	\$4,064	\$3,691	\$4,100	\$3,087	\$3,191	\$3,507
10	\$3,099	\$2,903	\$2,757	\$4,105	\$3,750	\$4,493	\$3,488	\$3,282	\$3,648
Total	\$23,849	\$24,333	\$24,711	\$40,209	\$37,113	\$37,010	\$26,810	\$27,384	\$29,007
Health Utility Scores									
		Nondiabetic			Diabetic			Weighted average	
Study Yr	Lifestyle	Metformin	Placebo	Lifestyle	Metformin	Placebo	Lifestyle	Metformin	Placebo
1	0.703	0.688	0.689	0.665	0.717	0.688	0.703	0.688	0.689
2	0.698	0.683	0.677	0.644	0.681	0.681	0.695	0.683	0.678
3	0.695	0.682	0.678	0.665	0.685	0.663	0.692	0.683	0.674
4	0.695	0.681	0.676	0.652	0.677	0.669	0.688	0.680	0.674
5	0.688	0.682	0.675	0.659	0.668	0.669	0.682	0.678	0.673
6	0.689	0.679	0.679	0.675	0.667	0.659	0.685	0.675	0.671
7	0.690	0.686	0.677	0.677	0.668	0.665	0.686	0.680	0.672
8	0.689	0.681	0.675	0.669	0.666	0.666	0.682	0.675	0.671
9	0.693	0.676	0.670	0.677	0.664	0.663	0.687	0.671	0.667
10	0.689	0.678	0.678	0.678	0.672	0.658	0.685	0.675	0.668
Mean	0.693	0.682	0.677	0.666	0.677	0.668	0.689	0.679	0.674

SUPPLEMENTARY DATA

**Supplementary Table 4.** Undiscounted per capita 10-year direct nonmedical costs by intervention group and type (\$)

	<b>Lifestyle</b>	<b>Metformin</b>	<b>Placebo</b>
<b>Diet-related costs</b>			
Food eaten at home	21,558	21,522	21,574
Food eaten away from home	18,516	18,769	18,702
Commercial weight loss programs	442	540	523
Food preparation equipment	626	566	563
Total	41,142	41,398	41,362
<b>Physical activity-related costs</b>			
Gym membership	1,527	1,287	1,281
Exercise classes	885	722	854
Personal trainer	42	38	37
Fitness equipment	3,802	2,831	2,976
Total	6,255	4,878	5,149
<b>Transportation-related costs</b>			
Travel to study visits	834	341	139
Travel to medical visits	584	599	620
Total	1,418	940	759
<b>Participant time-related costs</b>			
Intervention-related time	3,051	1,073	587
Medical care-related time	3,837	3,909	4,056
Time spent shopping and cooking	81,843	81,466	84,267
Adjusted time spent exercising*	9,384	9,841	9,945
Total	98,115	96,289	98,855
<b>TOTAL</b>	<b>146,930</b>	<b>143,504</b>	<b>146,124</b>

\* see text of description of adjustment

## SUPPLEMENTARY DATA

### **Pennington Biomedical Research Center (Baton Rouge, LA)**

George A. Bray, MD\*  
Annie Chatellier, RN, CCRC\*\*  
Crystal Duncan, LPN  
Frank L. Greenway, MD  
Erma Levy, RD  
Donna H. Ryan, MD

### **University of Chicago (Chicago, IL)**

Kenneth S. Polonsky, MD\*  
Janet Tobian, MD, PhD\*  
David Ehrmann, MD\*  
Margaret J. Matulik, RN, BSN\*\*  
Bart Clark, MD  
Kirsten Czech, MS  
Catherine DeSandre, BA  
Ruthanne Hilbrich, RD  
Wylie McNabb, EdD  
Ann R. Semenske, MS, RD

### **Jefferson Medical College (Philadelphia, PA)**

Barry J. Goldstein, MD, PhD\*  
Kevin Furlong, DO\*  
Kellie A. Smith, RN, MSN\*\*  
Wendi Wildman, RN\*\*  
Constance Pepe, MS, RD

### **University of Miami (Miami, FL)**

Ronald B. Goldberg, MD\*  
Jeanette Calles, MSED\*\*  
Juliet Ojito, RN\*\*  
Sumaya Castillo-Florez, MPH  
Hermes J. Florez, MD, PhD  
Anna Giannella, RD, MS  
Olga Lara  
Beth Veciana

### **The University of Texas Health Science Center (San Antonio, TX)**

Steven M. Haffner, MD, MPH\*  
Helen P. Hazuda, PhD\*  
Maria G. Montez, RN, MSHP, CDE\*\*  
Carlos Lorenzo, MD, PhD  
Arlene Martinez, RN, BSN, CDE

### **University of Colorado (Denver, CO)**

Richard F. Hamman, MD, DrPH\*  
Lisa Testaverde, MS\*\*  
Alexis Bouffard, MA, RN, BSN  
Dana Dabelea, MD, PhD  
Tonya Jenkins, RD, CDE  
Dione Lenz, RN, BSN, CDE

Leigh Perreault, MD  
David W. Price, MD  
Sheila C. Steinke, MS

### **Joslin Diabetes Center (Boston, MA)**

Edward S. Horton, MD\*  
Catherine S. Poirier, RN, BSN\*\*  
Kati Swift, RN, BSN\*\*  
Enrique Caballero, MD  
Sharon D. Jackson, MS, RD, CDE  
Lori Lambert, MS, RD, LD  
Kathleen E. Lawton, RN  
Sarah Ledbury, Med, RD

### **VA Puget Sound Health Care System and University of Washington (Seattle, WA)**

Steven E. Kahn, MB, ChB\*  
Brenda K. Montgomery, RN, BSN, CDE\*\*  
Wilfred Fujimoto, MD  
Robert H. Knopp, MD  
Edward W. Lipkin, MD  
Michelle Marr, BA  
Anne Murillo, BS  
Dace Trence, MD

### **University of Tennessee (Memphis, TN)**

Abbas E. Kitabchi, PhD, MD, FACP\*  
Mary E. Murphy, RN, MS, CDE, MBA\*\*  
William B. Applegate, MD, MPH  
Michael Bryer-Ash, MD

### **Samuel Dagogo-Jack, MD, MSc, FRCP, FACP**

Sandra L. Frieson, RN  
Helen Lambeth, RN, BSN  
Lynne C. Lichtermann, RN, BSN  
Hooman Otkaei, MD  
Lily M.K. Rutledge, RN, BSN  
Amy R. Sherman, RD, LD  
Clara M. Smith, RD, MHP, LDN  
Judith E. Soberman, MD  
Beverly Williams-Cleaves, MD

### **Northwestern University's Feinberg School of Medicine (Chicago, IL)**

Boyd E. Metzger, MD\*  
Mark E. Molitch, MD\*  
Mariana K. Johnson, MS, RN\*\*  
Mimi M. Giles, MS, RD  
Diane Larsen, BS  
Charlotte Niznik, MS, RN, CDE  
Samsam C. Pen, BA  
Pamela A. Schinleber, RN, MS

SUPPLEMENTARY DATA

**Massachusetts General Hospital (Boston, MA)**

David M. Nathan, MD\*  
Charles McKittrick, BSN\*\*  
Heather Turgeon, BSN\*\*  
Kathy Abbott  
Ellen Anderson, MS, RD  
Laurie Bissett, MS, RD  
Enrico Cagliero, MD  
Kali D'Anna  
Linda Delahanty, MS, RD  
Jose C. Florez, MD, PhD<sup>†</sup>  
Valerie Goldman, MS, RD  
Alexandra Poulos  
Beverly Tseng

**University of California-San Diego (San Diego, CA)**

Elizabeth Barrett-Connor, MD\*  
Mary Lou Carrion-Petersen, RN, BSN\*\*  
Javiva Horne, RD  
Diana Leos, RN, BSN  
Sundar Mudaliar, MD  
Jean Smith, RN  
Karen Vejvoda, RN, BSN, CDE, CCRC

**St. Luke's-Roosevelt Hospital (New York, NY)**

F. Xavier Pi-Sunyer, MD\*  
Jane E. Lee, MS\*\*  
Sandra T. Foo, MD  
Susan Hagamen, MS, RN, CDE

**Indiana University (Indianapolis, IN)**

David G. Marrero, PhD\*  
Susie M. Kelly, RN, CDE\*\*  
Ronald T. Ackermann, MD  
Edwin S. Fineberg, MD  
Angela Hadden  
Marcia A. Jackson  
Marion S. Kirkman, MD  
Kieren J. Mather, MD  
Paris J. Roach, MD  
Madelyn L. Wheeler, RD

**Medstar Research Institute (Washington, DC)**

Robert E. Ratner, MD\*  
Vanita Aroda, MD\*  
Sue Shapiro, RN, BSN, CCRC\*\*  
Catherine Bavido-Arrage, MS, RD, LD  
Peggy Gibbs  
Gabriel Uwaifo, MD  
Renee Wiggins, RD

**University of Southern California/UCLA Research Center (Alhambra, CA)**

Mohammed F. Saad, MD\*  
Karol Watson, MD\*  
Medhat Botrous, MD\*\*  
Sujata Jinagouda, MD\*\*  
Maria Budget  
Claudia Conzues  
Perpetua Magpuri  
Kathy Ngo  
Kathy Xapthalamous

**Washington University (St. Louis, MO)**

Neil H. White, MD, CDE\*  
Samia Das, MS, MBA, RD, LD\*\*  
Ana Santiago, RD  
Angela L. Brown, MD  
Cormarie Wernimont, RD, LD

**Johns Hopkins School of Medicine (Baltimore, MD)**

Christopher D. Saudek, MD\* (deceased)  
Sherita Hill Golden, MD, MHS, FAHA\*  
Tracy Whittington, BS\*\*  
Jeanne M. Clark, MD  
Alicia Greene  
Dawn Jiggetts  
Henry Mosley  
John Reusing  
Richard R. Rubin, PhD  
Shawne Stephens  
Evonne Utsey

**University of New Mexico (Albuquerque, NM)**

David S. Schade, MD\*  
Karwyn S. Adams, RN, MSN\*\*  
Claire Hemphill, RN, BSN\*\*  
Penny Hyde, RN, BSN\*\*  
Lisa Butler, BUS  
Janene L. Canady, RN, CDE  
Kathleen Colleran, MD  
Ysela Gonzales, RN, MSN  
Doris A. Hernandez-McGinnis  
Patricia Katz, LPN  
Carolyn King

**Albert Einstein College of Medicine (Bronx, NY)**

Jill Crandall, MD\*  
Janet O. Brown, RN, MPH, MSN\*\*  
Elsie Adorno, BS  
Helena Duffy, MS, C-ANP  
Helen Martinez, RN, MSN, FNP-C  
Dorothy Pompei, BA

## SUPPLEMENTARY DATA

Harry Shamoon, MD  
Elizabeth A. Walker, RN, DNSc, CDE  
Judith Wylie-Rosett, EdD, RD  
**University of Pittsburgh (Pittsburgh, PA)**  
Trevor Orchard, MD\*  
Susan Jeffries, RN, MSN\*\*  
M. Kaye Kramer, BSN, MPH\*\*  
Marie Smith, RN, BSN\*\*  
Rena R. Wing, PhD  
Andrea Kriska, PhD  
Jessica Pettigrew, CMA  
Linda Semler, MS, RD  
Elizabeth Venditti, PhD  
Valarie Weinzierl, BS  
**University of Hawaii (Honolulu, HI)**  
Richard F. Arakaki, MD\*  
Narleen K. Baker-Ladao, BS\*\*  
Mae K. Isonaga, RD, MPH\*\*  
Nina E. Bermudez, MS  
Marjorie K. Mau, MD  
**Southwest American Indian Centers**  
**(Phoenix, AZ; Shiprock, NM; Zuni, NM)**  
William C. Knowler, MD, DrPH\*<sup>+</sup>  
Norman Coeoyate\*\*  
Mary A. Hoskin, RD, MS\*\*  
Camille Natewa\*\*  
Carol A. Percy, RN, MS\*\*  
Kelly J. Acton, MD, MPH  
Vickie L. Andre, RN, FNP  
Shandiin Begay, MPH  
Brian C. Bucca, OD, FAAO  
Sherron Cook  
Matthew S. Doughty, MD  
Justin Glass, MD  
Martia Glass, MD  
Robert L. Hanson, MD, MPH  
Doug Hassenpflug, OD  
Louise E. Ingraham, MS, RD, LN  
Kathleen M. Kobus, RNC-ANP  
Jonathan Krakoff, MD  
Catherine Manus, LPN  
Cherie McCabe  
Sara Michaels, MD  
Tina Morgan  
Julie A. Nelson, RD  
Robert J. Roy  
Miranda Smart  
Darryl P. Tonemah, PhD  
Charlton Wilson, MD

**George Washington University Biostatistics**  
**Center (DPP Coordinating Center**  
**Rockville, MD)**  
Sarah Fowler, PhD\*  
Tina Brenneman\*\*  
Solome Abebe, MS  
Julie Bamdad, MS  
Melanie Barkalow  
Joel Bethupu  
Tsedenia Bezabeh  
Jackie Callaghan  
Costas Christophi, PhD  
Sharon L. Edelstein, ScM  
Yuping Gao  
Robert Gooding  
Adrienne Gottlieb  
Nisha Grover  
Heather Hoffman, PhD  
Kathleen Jablonski, PhD  
Richard Katz, MD  
Preethy Kolinjivadi, MS  
John M. Lachin, ScD  
Yong Ma, PhD  
Susan Reamer  
Alla Sapozhnikova  
Hanna Sherif, MS  
Marinella Temprosa, MS  
Qing Pan, PhD  
Mary Foulkes, PhD  
Nicole Butler  
**Lifestyle Resource Core**  
Elizabeth M. Venditti, PhD\*  
Andrea M. Kriska, PhD  
Linda Semler, MS, RD  
Valerie Weinzierl, BS  
**Central Biochemistry Laboratory (Seattle,**  
**WA)**  
Santica Marcovina, PhD, ScD\*  
Greg Strylewicz, PhD\*\*  
John Albers, PhD  
**Epidemiological Cardiology Research**  
**Center- Epicare (Winston-Salem, NC)**  
Ronald J. Prineas, MD, PhD\*  
Teresa Alexander  
Charles Campbell, MS  
Sharon Hall  
Susan Hensley  
Yabing Li, MD  
Margaret Mills  
Elsayed Soliman, MD  
Zhuming Zhang, MD

## SUPPLEMENTARY DATA

### NIH/NIDDK (Bethesda, MD)

Judith Fradkin, MD

Sanford Garfield, PhD

### Centers for Disease Control & Prevention (Atlanta, GA)

Edward Gregg, PhD

Ping Zhang, PhD

### University of Michigan (Ann Arbor, MI)

William H. Herman, MD, MPH

Morton B. Brown, PhD

\* denotes Principal Investigator

\*\* denotes Program Coordinator

## References

24. Bureau of Labor Statistics. Inflation Calculator. 2010 October 14, 2010; Available from: [http://www.bls.gov/data/inflation\\_calculator.htm](http://www.bls.gov/data/inflation_calculator.htm).
25. PDR Network, Red Book. 2010, Montvale, NJ.
26. Centers for Medicare and Medicaid Services. Clinical Laboratory Fee Schedule, April Release. 2010 October 13, 2010; Available from: [http://www.cms.gov/ClinicalLabFeeSched/02\\_clinlab.asp#TopOfPage](http://www.cms.gov/ClinicalLabFeeSched/02_clinlab.asp#TopOfPage).
27. Centers for Medicare and Medicaid Services. National Physician Fee Schedule Relative Value File, October Release. 2010 October 12, 2010; RVU10D\_PCT22; Available from: <http://www.cms.gov/PhysicianFeeSched/PFSRVF/list.asp?listpage=4>.
28. Bureau of Labor Statistics. Consumer Price Index- All Urban Consumers. 2010 October 7, 2010; Available from: <http://www.bls.gov/data/#calculators>.
29. Bureau of Labor Statistics. National Compensation Survey: Occupational Earnings in the United States, 2009. 2010 October 8, 2010; Bulletin 2738; Available from: <http://www.bls.gov/ncs/ocs/sp/nctb1344.pdf>.
30. United States Department of Agriculture. Food CPI and Expenditures: Table 13. 2010 November 10, 2010; Available from: [http://www.ers.usda.gov/briefing/CPIFoodandExpenditures/Data/Expenditures\\_tables/table13.htm](http://www.ers.usda.gov/briefing/CPIFoodandExpenditures/Data/Expenditures_tables/table13.htm).
31. Internal Revenue Service, Revenue Procedure 2009-54. 2009.
32. Grosse SD, Krueger KV, Mvundura M. Economic productivity by age and sex: 2007 estimates for the United States. *Med Care* 2009;47(Suppl 1):S94–S103
33. Russell L, Ibuka Y, Carr D. How Much Time Do Patients Spend on Outpatient Visits? The American Time Use Survey. *Patient* 2008;1:211–222
34. Niska R, Bhuiya F, Xu J. National Hospital Ambulatory Medical Care Survey: 2007 emergency department summary. *Natl Health Stat Report* (26):1-31. Available from: <http://www.cdc.gov/nchs/data/nhsr/nhsr026.pdf>.