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WASTED BILLIONS, WASTED HEALTH: New York State's Huge Medicaid Gap Fueled by Highest in Nation Excess Medicaid Diabetes Costs

A Special Report from Health People: Community Preventive Health Institute
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February 2020

SUMMARY:
Proven Strategies to Slash Type-2 Diabetes Costs Ignored by State While Medicaid Deficit Explodes

Highest State Medicaid Type-2 Diabetes Costs: New York State's excess Medicaid diabetes costs now amount to $13.4 billion a year. They are the highest in the nation and a major source of the state's $4 billion Medicaid deficit. Excess Medicaid diabetes costs are defined by the Centers for Disease Control and Prevention as the extra annual cost per Medicaid patient with diabetes, compared to the annual cost for others on Medicaid. These costs are driven by complications like diabetes-related blindness, kidney disease and amputations, which alone have soared by 48% in the state in the past decade. These severe complications, and multiple other costs, are substantially preventable with proper clinical care and, especially, with effective patient education.

Least Amount of Patient Education: Yet, even while it has the nation's highest excess diabetes costs—an astounding extra $15,366 per year per Medicaid patient with diabetes—New York has the nation's lowest diabetes patient education rate. Only 35% of New York diabetics receive even one session of self-care education versus 54% nationally.

Deficit Disaster: New York is required to pay a 33% share of the state's $13.4 billion total excess Medicaid diabetes costs. The state share now amounts to projected $4.5 billion a year—exceeding in one year the $4 billion total Medicaid deficit accumulated in the past two years. Reducing these costs is critical to solving the Medicaid deficit crisis. Yet, the New York State Department of Health has made no effort to implement the evidence-based strategies and proven education which can slash diabetes costs while also significantly improving the health of people with diabetes. In fact, the state health department has no overall plan to control diabetes and refuses even to make reducing diabetes-related amputations a goal of the official state "Prevention Agenda."

Very Large Savings Potential: Providing well evaluated self-care education for just 20% of state Medicaid patients with diabetes and 10% with pre-diabetes would potentially save the state a minimum of $306 million a year and up to $612 million just the first year. Because these patients' improved "lifestyle" lowers their costs for years, investment in education provides savings that continue for years, while creating the implementation funding to keep expanding cost-saving strategies.

I. THE PROBLEM

• 18% of ALL Medicaid costs in New York State are excess diabetes costs.

New York State's excess diabetes costs of $15,366 a year per Medicaid patient with diabetes are the highest in the nation—double those of any other state. Such excess costs are defined by the Centers for Disease Control and Prevention (CDC) as the extra average dollars a state spends annually on each Medicaid patient with diabetes, compared with the average spent on a Medicaid patient without diabetes.[1] The mean annual Medicaid cost for an adult with diabetes in New York is $28,030 versus $12,664 for adults without diabetes.

The state currently has 6.4 million Medicaid patients; a projected 14%, or 896,000 of them have diabetes. The extra annual cost of $15,366 for each of these patients means the state's projected total bill for excess diabetes spending is $13.4 billion out of total expected Medicaid spending for 2019-20 of $74.5 billion**.**

• Excess diabetes costs, in fact, are accumulating at twice the rate of the overall deficit.

The federal government pays 57% of all New York Medicaid expenditures while the state pays 33% and the city and other counties pay the remaining 10%. This means the state share of excess diabetes costs is now $4.5 billion a year, annually exceeding the $4 billion combined Medicaid deficit for the last two fiscal years (2018 and 2019) -- which the Empire State Institute has projected as the immediate health funding crisis facing the state.[2,3]

State officials have been quick to blame the looming Medicaid deficit on "uncontrollable" factors like the $15 minimum wage increase and Medicaid expansion. However, it is obvious that excess diabetes costs, which have been allowed to soar for years, also significantly fuel New York's skyrocketing and unsustainable Medicaid deficit**.**

• Excess diabetes costs are driven by complications and chain patients to the medical industry and long-term care for life.

Excess diabetes costs are driven largely by serious complications such as blindness, kidney disease and lower-limb amputations. The state's diabetes-related lower limb amputation rate, for one example, has soared by 48% since 2009. Despite this, the state has taken no steps to reduce amputations.[4] The state health department has even refused to include reducing amputations as a recognized goal of the official state Prevention Agenda. Adding up surgery, prosthetics, pain management, physical therapy and related interventions, one above-the-knee amputation can easily cost $250,000 in the first year alone.

Along with increasing the risk of major crippling complications, diabetes also increases the risk of Alzheimer's by 40%. As a result, diabetes is the single disease which most accelerates the costs of long-term care in New York State. For low-income disabled persons, long-term care, most of which is paid by Medicaid, consumes on average $24,905 a year per recipient.

II. THE JOURNEY TO A SOLUTION

• Diabetes presents the single greatest opportunity of any major disease to massively save Medicaid money, while significantly improving outcomes for Medicaid patients.

The fact that New York State has the lowest rate of patient self-care education for diabetes of any state is a major factor in these harmful and costly outcomes. In New York, only 35% of diabetes patients receive even one session of self-care education, versus 54% nationally.[5]

At the same time, it is unquestionable that diabetes presents the single greatest opportunity of any major disease to massively save Medicaid money, while significantly improving outcomes for Medicaid patients. This is because diabetes is prevented or much better controlled by "lifestyle" changes that people can readily learn. Even modest changes -- losing 3% to 5% of body weight, or starting moderate exercise, such as walking -- have measurable impacts in preventing diabetes and helping those who already have the disease better control their blood sugar.

• Evidence-based, cost-effective patient education can be rapidly implemented.

Fortunately, well-evaluated and evidenced-based classes and courses for diabetes prevention and improved self-care already exist. They can be readily implemented by trained peer educators, who themselves are representative of high-risk groups. Training local people in diabetes-impacted neighborhoods to be the educators enables rapid establishment of effective education where it is most needed.

Improved clinical care and other strategies are important to reducing the terrible impact of diabetes. Education, however, is also a compelling tool in New York's toolkit since effective evidence-based programs and strategies already exist and are available for replication. New York State's refusal to invest in these best practice programs and strategies has increased its own costs by literally billions of dollars. Sadly, it also has increased the distress and disability of Medicaid patients with diabetes.

Three of the most widely-used, evidence-based patient education programs are:

1. **The Diabetes Self-Management Program (DSMP)**, a six-session, supportive group course which equips people with diabetes with the knowledge to make their own "action plan" for changes in nutrition and exercise they believe are achievable. With 20 years of research demonstrating it decreases blood sugar levels enough to measurably decrease risks for amputation and blindness, the DSMP also alleviates the depression so common with diabetes, as well as lowers medical costs and emergency room use.

   Overall, the most recent large evaluation of the DSMP showed that in the year after participating in it, patients had $2,220 lower "all-cause" medical costs (i.e., hospitalizations, emergency room visits, diabetes complications and other diseases, like heart disease, which diabetes accelerates).[6]

   Perhaps the most impressive finding in this large-scale evaluation of the DSMP is that one year later, similar groups of people with diabetes who took the DSMP had 90% fewer diagnoses of new kidney disease, compared with those who had regular care without participating in the DSMP. Since virtually all people who develop diabetes-related kidney disease will require

dialysis (which now costs $90,000 a year in New York), this outcome alone saves people from a terrible and costly consequence of diabetes.[6]

Yet, the New York State Department of Health refuses to pay for the DSMP.

2. **The National Diabetes Prevention Program (NDPP)** is a 22-session, CDC-endorsed course for pre-diabetics. Over 20 years, substantial research shows it reduces by nearly 60% the prospect that pre-diabetics will proceed to develop diabetes. These results are similar across racial and ethnic groups.

   New York State has 4.5 million pre-diabetics with about 2 million on Medicaid. Within three to five years, 25% will develop outright diabetes and, over the long-term, without help and education, 70% will develop the disease.

   The most recent federal evaluation of the NDPP showed that it saved an average $2,650 in all cause medical expenditures per participant over a period of 15 months, with "lifestyle changes" already improving the overall health of participants even as they avoided proceeding to a diabetes diagnosis at the rate of the comparison group not in the NDPP. It also reduced "all cause" healthcare/hospital utilization. Please note these are the average savings for **all NDPP** participants monitored, not only those who fully completed the program.[7]

   For years, the New York State Department of Health also has refused to pay for the NDPP. The state legislature finally passed a law in spring 2019, forcing the state health department to include the NDPP as a Medicaid benefit. It further directed the state to promote NDPP delivery by community groups (local groups are generally best able to provide this kind of effective health education in high-need neighborhoods). **However, the health department announced it would only reimburse providers for half of the actual costs of delivering the 22-session NDPP. This move essentially blocked the best evaluated prevention from reaching low-income neighborhoods with the highest concentration of pre-diabetics.**

   Since community groups lack the funding to pay for the remaining costs, the state's "penny-wise and pound-foolish" approach to the NDPP will leave huge Medicaid pre-diabetic populations without effective help to avoid diabetes.

3. **Plant-based Nutritio**n essentially means that most of what people eat comes from plant sources. This approach to eating has 20 years of research showing that 25% or more of type-2 diabetics who adopt plant-based nutrition reversed their diabetes and ceased taking medications. Another large portion reduced their need for medications.[8]

   Right now, a demonstration program in the New York City public hospital system, evidently the first in the nation to specifically evaluate outcomes for public hospital patients who adapt plant-based nutrition, is expected to report its results later this year.[9]

   Currently, the state does not support any efforts to help diabetics understand and adopt plant-based nutrition, even with the potential savings that could be realized -- $15,366 a year per person who reverses their diabetes.

• New York State refuses many opportunities to cut its Medicaid deficit by implementing patient-centered education despite huge potential savings projections.

The major evaluations of cost savings of education programs has been calculated outside of New York, in areas of the country with lower medical costs.

As a result, almost certainly, savings in New York for the same effort would likely be significantly higher.

Let's look at the two examples of the goals of providing the DSMP to at least 20% of state diabetics on Medicaid and providing the National Diabetes Prevention Program to 10% of its estimated pre-diabetics.

In the most recent large DSMP evaluation which took place with patients largely located in the Midwest and South, the DSMP saved an average $2,220 per patient in "all cause" medical costs the first year.

Based on these figures, providing the DSMP to 20% of New York's estimated 896,000 Medicaid patients with diabetes, or 179,200 patients, by saving $2,220 each, would save $397,824,000 overall just the first year.

Similarly, the most recent large NDPP evaluation took place at 17 YMCA networks across the nation. It showed an average medical savings of $2,650 for each pre-diabetic participant in the first 15 months. Based on that evaluation, providing the NDPP to 10% of the state's 2 million pre-diabetics, or 200,000 patients, would save an average $2,650 per person in medical costs in the first 15 months or a projected $530,000,000 overall.

Total Savings:	$927, 824, 000
State 33% Savings Share:	$306, 182, 000

But, if New York's medical costs for caring for diabetics are at least double other states', then these savings might well also be double with the state starting to save more than $612 million a year just in the first year after reaching a modest percentage of its diabetic and pre-diabetic Medicaid patients with evidence-based education.

In addition, following that, the state would realize recurring savings year after year as many costs for diabetes patients that typically increase over time are averted due to their improved "lifestyles" – lifestyles that would make it significantly less likely they would develop **costly and disabling complications like kidney disease, amputation and blindness over time.**

• The state's inaction in confronting diabetes has led to a new and horrific phenomenon in public health – mass lower limb amputations which are substantially preventable.

The state's inaction is especially confounding since patient education for diabetes prevention and self-care is so relatively inexpensive to implement and so clearly pays for itself in reduced patient costs. To start a statewide program, New York need only provide an initial investment for organization and training in order to realize that investment within the first year of operation. Following that, substantial year-by-year savings would accrue from prevention participants not developing diabetes and self-care participants having significantly lower risks of developing severe complications and other costly outcomes.

By launching a statewide program to train local peer educators in high-need areas — especially Medicaid patients who, themselves, have diabetes or pre-diabetes — and engaging local community groups to oversee their field work, the state can rapidly engage Medicaid patients and start reducing its excess costs.

• **These goals of engaging Medicaid patients and reducing excess costs are reasonable and feasible**.

The success of other major patient-education health initiatives demonstrates that goals for diabetes prevention and self-care are reasonable and achievable. For example, the New York City Childhood Asthma Initiative, a comprehensive program which included both clinical reform and intensive community education, cut the city's childhood asthma hospitalization rate by 36% between 1997 and 2000.[10]

Then, there is End the Epidemic (ETE), a state initiative which has allocated proper funding to AIDS for community education and outreach linked to clinical care. Although many might have thought the ambitious goals for ETE were impossible when they were set, today 67% of state HIV/AIDS patients have **sustained** viral load suppression, meaning they are in regular medical care and taking medications regularly as prescribed. Viral suppression is the AIDS equivalent of having diabetes in good control.[11]

Therefore, a reasonable start for diabetes would center on an initial goal of assuring that 20% of state Medicaid diabetes patients and 10% of pre-diabetics have access to the kind of multi-session, evidence-based self-care education that is proven most effective. Moreover, with projected savings of roughly $398 million a year for DSMP participants and $530 million for NDPP graduates, the state could realize almost one billion in savings (~$928 million) which would continue accruing year after year as these patients remain in better health. From the state's 33% share of Medicaid costs, some $306 million would be saved and likewise accrue annually. The savings could then be used to expand education which would result in further cost reductions.

• And then there is the good self-care and nutrition goal that the state completely ignores – Type-2 Diabetes remission.

Despite the public image that type-2 diabetes is permanent, many people with diabetes can, in fact, reverse their condition to the point where they no longer require medications. The failure of New York State and New York City to support any targeted diabetes remission strategies is costing the state potentially huge Medicaid savings—and costing Medicaid patients greatly improved health. While there is little research on reversing diabetes in low-income patients, clearly it is possible.

Following are two different strategies for diabetes remission:

1. **Longer, Sustained Support**: At Health People, we have for some years run a large DSMP program in the South Bronx, the poorest urban Congressional District in the United States, and have some sense of what the huge potential for diabetes reversal could be.

   In addition to the savings and good outcomes for diabetics who participate in the DSMP are the positive outcomes that stem from training pre-diabetics and diabetics to themselves become the peer leaders/educators who deliver the DSMP to others in their community. Health People, an entirely peer educator-based disease prevention and self-care community organization, has an important history of observing progress in reversing diabetes.

Nearly all those with pre-diabetes or diabetes we have trained as peer leaders have lost weight and lowered their blood sugar. Additionally, of 12 Medicaid patients with diabetes trained by Health People as peer leaders/educators, who then spent six months or more facilitating DSMP courses, three (so far) have reversed their diabetes to the point where they require no medications. It appears the extra impetus—and knowledge—of being involved in diabetes education enabled them to steadily go further in improving their own health.

The savings from this overall 25% rate of diabetes remission among the peers with type-2 diabetes who become educators are considerable. Assuming the three live a minimum of 20 more years, their remission saves more than $900,000 in excess diabetes costs for only three people.

2. **Plant-Based Nutrition**: Providing guidance to those wishing to adopt plant-based nutrition as their basic diet also promises notable results in reversing diabetes. Research shows some 25% or more of type-2 diabetics who adopt plant-based nutrition can reverse their diabetes to the point where they didn't require any diabetes medications. Another large portion can significantly reduce their medication levels. The reversal of need for medications includes patients being able to halt the use of injected insulin, which has doubled in price since 2012, providing especially large savings.[8]

   At Bellevue Hospital, part of New York City's public hospital system, there is currently a groundbreaking demonstration project, evidently the first in the country, that is introducing plant-based nutrition especially to low-income patients with diabetes and other chronic diseases. It can be expected to provide detailed information about diabetes reversal, other improved outcomes and reduced medication and other cost savings achieved for Medicaid patients later in the year.[9]

   In the meanwhile, for the purpose of this report, we can project some potential savings. For instance, let's consider providing guidance on adapting plant-based nutrition to just 5% of New York diabetics on Medicaid—or 44,800 people. Even a projected 25% of these 44,800 patients, or just 11,200 who reverse their diabetes would save the full excess diabetes costs of $15,366 per patient, or a total of some $172 million a year. One-third of those savings—$56,793,000—would accrue to the state and 10% to the city and other counties year after year for as long as these patients maintain reversal, possibly to the end of their lives.

   Importantly, adoption of a plant-based diet appears especially potent in reducing or even reversing neuropathy symptoms. Neuropathy is the chief risk indicator for diabetes-related foot ulcers and amputation.[12] Currently, 5% of diabetics develop a foot ulcer **every year** and such ulcers precede 85% of amputations. An average foot ulcer hospitalization alone, without amputation, now costs $37,754 in New York State.[13] While it is hard to project the huge savings possible from a real effort to introduce diabetics with foot neuropathy to plant-based nutrition, it clearly would be worth the effort.

- **Finally, diabetics on Medicaid want ACCESSIBLE self-care and nutrition education.**

The medical establishment often claims that low-income, Medicaid recipients "don't attend" self-management courses and other educational activities. On the contrary, in our experience at Health People, we have found they don't attend such courses because the state fails to make them accessible and available. **Let's remember that the state refuses to pay for the DSMP and has largely blocked implementation of the NDPP by not providing full funding.**

Our experience tells us that when education is truly available, Medicaid recipients have shown they are eager to take part in well-designed programs that can help them. Through special federal funding, Health People has been able to make the DSMP for the first time widely accessible at community sites all over the Bronx from churches and medical clinics to homeless shelters and senior centers.

Unfortunately, this special funding will end in spring 2020. Still, by then, Health People will have enrolled 2,000 diabetics on Medicaid in the DSMP. When we made a focused effort to bring the DSMP to homeless shelters, 201 diabetic participants enrolled and 87% completed the course. The result was a 45% reduction in emergency room visits in six months. **With the reduction in emergency room costs alone, this program paid for itself in less than six months.**

Yet, Health People and other grassroots community groups have never been able to obtain funding directly from New York State to provide the DSMP widely and conveniently to the community.

The New York public hospital system's very important demonstration of plant-based nutrition specifically for low-income populations with diabetes and other chronic diseases only had capacity for 167 patients. It now has a 600-person waiting list. When the initiatives' outcomes in improving diabetes and other chronic diseases are available later in the year, will it even make any difference as long as New York State—and, for that matter, New York City—refuse to support the most basic, public health measures that have been proven to diminish the impact of diabetes?

III. IN CLOSE

New York's now staggering Medicaid deficit demands that the state end its longtime denial and neglect of its own diabetes epidemic. Taking action now will save the state substantial diabetes-related Medicaid costs today and in the future.

There is, in fact, no other strategy available which can rapidly decrease present day Medicaid costs while improving health in ways that will start to slash the state's staggering long-term care Medicaid costs. This report enumerates the potential cost savings associated with various education programs. Remember, as mentioned earlier, just one above-the knee-amputation easily costs $250,000 in the first year with surgery, prosthetics, pain management, physical therapy, etc.[14] After that, **patients are chained to the medical industry for life.**

This report has illuminated the positive benefits – both health and financial – of evidence-based education programs and strategies in managing and reversing type-2 diabetes. It has focused primarily on education and nutrition because they are proven effective and can be implemented rapidly among people who have shown they are eager to participate in these protocols. Here, we have presented a sampling of best practice programs, but certainly there are others that also work. Strategies for

improving clinical care, especially for diabetics with foot pathology, eye problems and renal disease are also very important and deserve their own report.

The state's longtime costly—and deadly— failure to confront diabetes and help manage and reverse it by investing in well-known, proven, evidence-based education strategies and programs must end.

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[δ]Although, under special regulations, most Medicaid patients can bill Medicare for dialysis, the state still must pay the extra costs of $10,000 to $20,000 a year for caring for kidney disease before patients reach dialysis.