Improvements In Appropriate Diabetes Medication Use Could Lead To Better Health Outcomes And Save The United States **$11,100** In Total Medical Costs[1] Per Medicaid Patient With Type 2 Diabetes Over The Next Six Years

Type 2 diabetes mellitus (T2DM) is a costly disease, as many patients experience complications such as heart attack, stroke, amputation and blindness as the disease progresses. Appropriate use and adherence to prescribed medications has been proven to reduce the risk of health complications and health care spending.[2]

Using a validated disease simulation model, GlobalData projected the burden of T2DM from 2022 through 2027 and estimated how improvements in medication use as part of disease management could reduce that burden for Medicaid beneficiaries of different racial/ethnic and age groups. Overall, the analysis concludes that among Medicaid beneficiaries with diagnosed T2DM in the United States:

Patients took their prescribed oral medications 75% of the time, and only 53% of patients had their blood glucose level under control.[3] Adherence also varied by race, with lower adherence rates observed among Black and Hispanic patients (69% and 73%, respectively) compared to white patients (81%).

Improvements in medication adherence could lead to nearly **10% fewer diabetes complications**, including up to **377 fewer heart attacks per 100,000 Medicaid beneficiaries with T2DM**, with greater impacts among Black and Hispanic patients relative to white patients and of other races.

Medical savings over six years from improved medication adherence increases with patient age. Beneficiaries ages 18-34, 35-49 and 50-64 years old could save on average **$3,800**, **$9,500** and **$15,100**, respectively.

In the absence of change, **incidence of diabetes complications** such as heart attack, heart disease, amputation and blindness is expected to **increase by about 12.8% to 13.4% through 2027**.

Approximately **$11,100 in total medical cost[1] could be saved per patient** under aggressive improvements in adherence. Estimated savings for Blacks and Hispanics are higher than the overall average at **$13,100** and **$10,900**, respectively, while somewhat lower for white patients and of other races.

On average, up to **3,600 lives could be saved for every 100,000 covered patients**, while the numbers are higher among Black and Hispanic patients (4,272 and 3,372, respectively) than whites (2,803).

---

[1] Total medical costs include payers' costs and patients' out-of-pocket expenses.

[2] Jha AK, et al., Greater Adherence to Diabetes Drugs is Linked to Less Hospital Use and Could Save Nearly $5 Billion Annually. Health Affairs, vol. 31, no. 8 (2012): 1836-46.

[3] Tan E, et al., Geographic Variation in Antidiabetic Agent Adherence and Glycemic Control Among Patients with Type 2 Diabetes. Journal of Managed Care & Specialty Pharmacy, vol. 21, no. 12 (2015): 1195-1202.
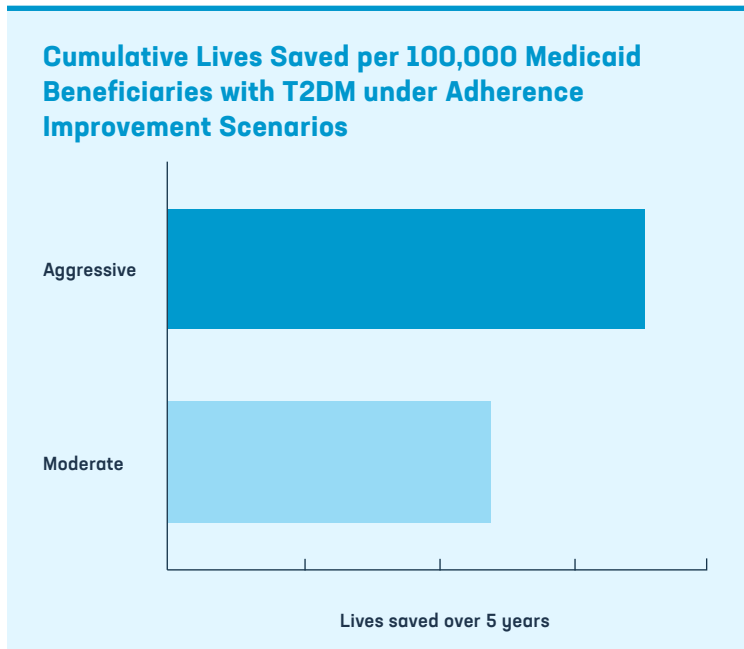
Future disease burden and health care costs were estimated under two scenarios in which adherence to diabetes medicines is improved relative to the status quo over the next six years:

Reduction in the Annual Incidence of Diabetes Complications per 100,000 Medicaid Beneficiaries with T2DM
Compared to the Status Quo, 2027

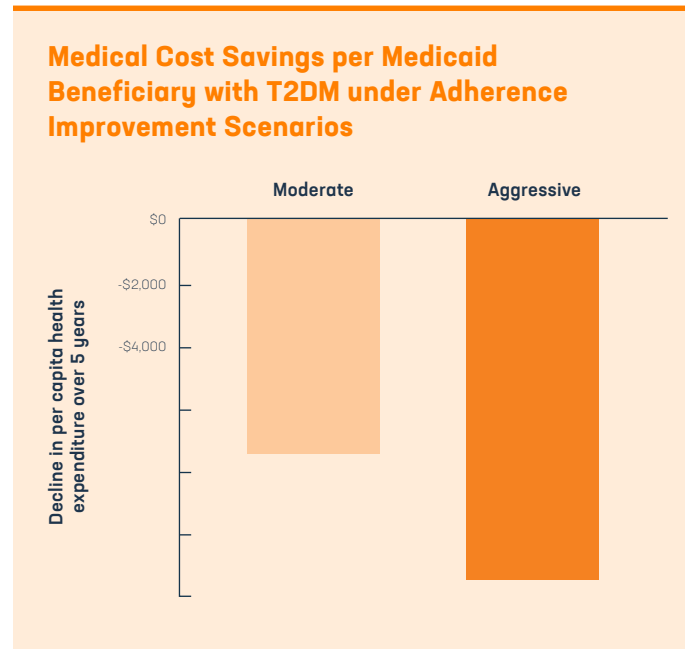| Adherence Improvement Scenario	Heart Attack	Ischemic Heart Disease	End Stage Kidney Disease	Amputation	Blindness
Moderate (Adherence increased by 20%)	244	256	15	16	5
Aggressive (Adherence increased by 33%)	377	393	23	25	8

Source: GlobalData

Medical Cost Savings per Capita and Lives Saved per 100,000 Medicaid Beneficiaries with T2DM by Patient Sub-Group

Outcome	Improvement Scenario	Race/Ethnicity				Age		
		White	Black	Hispanic	Other	18-34	35-49	50-64
Medical Cost Saving	Moderate	$7,347	$7,492	$6,713	$6,923	$2,474	$6,146	$9,750
	Aggressive	$8,566	$13,066	$10,886	$7,896	$3,827	$9,507	$15,079
Lives Saved	Moderate	2,404	2,450	2,195	2,265	809	2,010	3,189
	Aggressive	2,803	4,272	3,372	2,582	1,251	3,109	4,933

Source: GlobalData

Cumulative Lives Saved per 100,000 Medicaid Beneficiaries with T2DM under Adherence Improvement Scenarios

Source: GlobalData

Medical Cost Savings per Medicaid Beneficiary with T2DM under Adherence Improvement Scenarios

Source: GlobalData

GlobalData.   PhRMA
RESEARCH • PROGRESS • HOPE