

2019 NATIONAL HEALTHCARE QUALITY AND DISPARITIES REPORT

Quality Trends

Table 1. Hospital Measures

Among the core Person-Centered Care measures, only one speaks to inpatient quality of care.

Sub-Area	Measure Title (Data Source)	Baseline Rate and Year	Current Rate and Year	AAPC*	P Value
Communication – Medication	Adult hospital patients who sometimes or never had good communication about medications they received in the hospital (HCAHPS)	12.7% in 2009	10.5% in 2018	-2.5	0.004

Table 2. Ambulatory Measures

Among 11 measures related to ambulatory care, 8 were improving over time and 3 were not changing. These measures include patient experience of care measures that examine communication between patients and their providers over the course of a year.

Sub-Area	Measure Title (Data Source)	Baseline Rate and Year	Current Rate and Year	AAPC	P Value
Health Literacy	Adults with limited English proficiency who had a usual source of care (MEPS)	58.5% in 2014	65.9% in 2017	-6.0	0.017
Health Literacy	Adults who had a doctor's office or clinic visit in the last 12 months whose health providers always gave them easy-to-understand instructions about what to do for a specific illness or health condition (MEPS)	64.1% in 2011	73.0% in 2017	-3.9	0.002

* AAPC = average annual percent change.

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Sub-Area	Measure Title (Data Source)	Baseline Rate and Year	Current Rate and Year	AAPC	P Value
Health Literacy	Adults who had a doctor's office or clinic visit in the last 12 months whose health providers sometimes or never explained things in a way they could understand (MEPS)	9.0% in 2002	7.4% in 2017	-3.3	0
Health Literacy	Adults who had a doctor's office or clinic visit in the last 12 months whose health providers sometimes or never spent enough time with them (MEPS)	15.3% in 2002	11.0% in 2017	-3.1	0
Respect	Adults who had a doctor's office or clinic visit in the last 12 months whose health providers sometimes or never showed respect for what they had to say (MEPS)	8.8% in 2002	6.9% in 2017	-2.7	0
Respect	Adults who had a doctor's office or clinic visit in the last 12 months whose health providers sometimes or never listened carefully to them (MEPS)	10.3% in 2002	8.2% in 2017	-2.3	0
Shared-Decision Making	People with a usual source of care whose providers sometimes or never asked them to help make decisions when there was a choice between treatments (MEPS)	21.9% in 2002	15.3% in 2017	-2.0	0.002
Healthcare Experience	Rating of health care 0-6 on a scale from 0 to 10 (best grade) by adults who had a doctor's office or clinic visit in the last 12 months (MEPS)	14.4% in 2002	12.8% in 2017	-1.9	0
Health Literacy	Adults with limited English proficiency and a usual source of care (USC) whose USC had language assistance (MEPS)	91.2% in 2014	91.2% in 2017	-5.5	0.696

Sub-Area	Measure Title (Data Source)	Baseline Rate and Year	Current Rate and Year	AAPC	P Value
Health Literacy	Adults who had a doctor's office or clinic visit in the last 12 months whose health providers always asked them to describe how they would follow the instructions (MEPS)	24.4% in 2011	26.6% in 2017	-0.9	0.135
Health Literacy	Adults who had a doctor's office or clinic visit in the last 12 months whose health providers always offered help in filling out forms (MEPS)	14.8% in 2011	15.4% in 2017	-0.3	0.214

Table 3. Home Health Care Measures

Among 9 home health care measures, 4 were improving over time. The 4 outcome measures that improved pertained to adults reporting on how they engaged with their home health providers. Five measures showed no change.

Sub-Area	Measure Title (Data Source)	Baseline Rate and Year	Current Rate and Year	AAPC	P Value
Pain	Adults who reported that home health providers talked about pain in the last 2 months of care (HHCAHPS)	87.5% in 2012	89.8% in 2018	-3.3	0
Caregiving	Adults who reported being told what care and services they would get when they first started getting home health care (HHCAHPS)	88.2% in 2012	89.4% in 2018	-1.5	0.001
Health Literacy	Adults who reported that home health providers always explained things in a way that was easy to understand in the last 2 months of care (HHCAHPS)	82.3% in 2012	83.6% in 2018	-1.3	0

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Sub-Area	Measure Title (Data Source)	Baseline Rate and Year	Current Rate and Year	AAPC	P Value
Respect	Adults who reported that home health providers always treated them with courtesy and respect in the last 2 months of care (HHCAPHS)	93.2% in 2012	93.6% in 2018	-1.2	0.002
Caregiving	Adults who reported that home health providers always kept them informed about when they would arrive at their home in the last 2 months of care (HHCAPHS)	78.8% in 2012	79.6% in 2018	-0.6	0.001
Respect	Adults who reported that home health providers always listened carefully to them in the last 2 months of care (HHCAPHS)	83.9% in 2012	84.5% in 2018	-0.6	0.017
Caregiving	Adults who did not have any problem with the care they received from their home health providers in the last 2 months of care (HHCAPHS)	92.6% in 2012	92.7% in 2018	-0.4	0.243
Pain	Adults who reported that home health providers always treated them as gently as possible in the last 2 months of care (HHCAPHS)	90.0% in 2012	90.2% in 2018	-0.3	0.007
Shared-Decision Making	Adults who reported getting the help or advice they needed when they contacted their home health providers in the last 2 months of care (HHCAPHS)	28.2% in 2012	24.3% in 2018	0.9	0

Table 4. Hospice Care Measures

Among 8 hospice care outcome measures, only 1 improved over time.

Sub-Area	Measure Title (Data Source)	Baseline Rate and Year	Current Rate and Year	AAPC	P Value
Caregiving	Hospice patients whose hospice care team always communicated well with their family caregivers about taking care of them (Hospice CAHPS)	79.4% in 2015	80.1% in 2018	-1.0	0.093
Caregiving	Family caregivers who received right amount of emotional and spiritual support from hospice care team (Hospice CAHPS)	88.8% in 2015	89.6% in 2018	-2.2	0.108
Caregiving	Hospice patients whose hospice care team always treated them with dignity and respect, and really cared about them (Hospice CAHPS)	89.5% in 2015	89.8% in 2018	-0.9	0.076
Caregiving	Family caregivers who rated the hospice care for their family member best (9-10) on a scale of 0-10 (where 0 is the worst and 10 is the best) (Hospice CAHPS)	79.9% in 2015	80.5% in 2018	-0.9	0.166
Caregiving	Family members who definitely received training about taking care of their family member from hospice care team (Hospice CAHPS)	72.6% in 2015	73.1% in 2018	-0.5	0.243
Caregiving	Hospice patients who always received enough help for pain, sadness, breathing, or constipation from hospice care team (Hospice CAHPS)	74.7% in 2015	75.0% in 2018	-0.3	0.469
Caregiving	Family caregivers who would definitely recommend this hospice to their friends and family (Hospice CAHPS)	84.6% in 2015	84.7% in 2018	-0.1	0.864

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Sub-Area	Measure Title (Data Source)	Baseline Rate and Year	Current Rate and Year	AAPC	P Value
Caregiving	Hospice patients and family caregivers who always got help as soon as they needed from hospice care team (Hospice CAHPS)	77.4% in 2015	77.5% in 2018	-0.0	0.999

Table 5. Hospital Measures

Among the 11 core Patient Safety measures, 3 measures were improving and 8 were not changing in the inpatient setting. The improving measures include procedural, medication safety, and healthcare-associated infection events.

Sub-Area	Measure Title (Data Source)	Baseline Rate and Year	Current Rate and Year	AAPC	P-value
Medication Safety	Hospital patients with an anticoagulant-related adverse drug event to low-molecular-weight heparin (LMWH) and factor Xa (MPSMS)	3.5% in 2014	1.7% in 2017	-21.9	0.008
Medication Safety	Adverse drug event with IV heparin in adult hospital patients who received an anticoagulant (MPSMS)	11.1% in 2014	6.1% in 2017	-19.8	0.045
Procedural Event	Mechanical adverse events in adult patients receiving central venous catheter placement (MPSMS)	3.3% in 2014	2.4% in 2017	-8.5	0.099
Healthcare-Associated Infections	Adult surgery patients with postoperative pneumonia events (MPSMS)	1.8% in 2014	1.1% in 2017	-13.1	0.113
Medication Safety	Hospital patients with an anticoagulant-related adverse drug event to warfarin (MPSMS)	4.8% in 2014	3.7% in 2017	-12.1	0.298
Medication Safety	Hospital patients who received a hypoglycemic agent who had an adverse drug event with a hypoglycemic agent (MPSMS)	8.8% in 2014	6.9% in 2017	-8.5	0.125
Healthcare-Associated Infections	Adult surgery patients with catheter-associated urinary tract infection (MPSMS)	2.6% in 2014	2.2% in 2017	-6.3	0.169

Sub-Area	Measure Title (Data Source)	Baseline Rate and Year	Current Rate and Year	AAPC	P-value
Surgical Safety	Inpatient adverse events in adults receiving hip joint replacement due to degenerative conditions (MPSMS)	2.9% in 2014	2.1% in 2017	-3.1	0.87
Surgical Safety	Inpatient adverse events in adults receiving hip joint replacement due to fracture (MPSMS)	9.8% in 2014	9.7% in 2017	-2.2	0.707
Surgical Safety	Inpatient adverse events in adults receiving knee replacement (MPSMS)	2.6% in 2014	2.5% in 2017	0.1	0.996
Venous Thromboembolism	Adult surgery patients with postoperative venous thromboembolic events (MPSMS)	0.5% in 2014	0.4% in 2017	3.5	0.882

Note: For MPSMS measures “hospital patients” refers to a population consisting of a sample of AMI, CHF, Pneumonia and major surgery patients. More information on the 2014-2017 sample can be found at <https://www.ahrq.gov/sites/default/files/wysiwyg/professionals/quality-patient-safety/pfp/Updated-hacreportFInal2017data.pdf>. The findings for these measure differs from the AHRQ National Scorecard due to different trend methodologies. For more information on the AHRQ National Scorecard on Hospital-Acquired Conditions, report and methodology, please visit: <https://www.ahrq.gov/hai/pfp/index.html>.

Table 6. Ambulatory Measures

There are 2 ambulatory care process measures, both of which were improving over time. Both measures also pertain to prescription medication prescribing.

Sub-Area	Measure Title (Data Source)	Baseline Rate and Year	Current Rate and Year	AAPC	P-value
Medication Safety	Adults age 65 and over who received in the calendar year at least 1 of 11 prescription medications that should be avoided in older adults (MEPS)	3.3% in 2002	1.3% in 2017	-6.4	0
Medication Safety	Adults age 65 and over who received in the calendar year at least 1 of 33 potentially inappropriate prescription medications for older adults (MEPS)	19.3% in 2002	9.6% in 2017	-4.3	0

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Table 7. Home Health Care Measures

Among 8 home health care measures, 3 measures were improving over time, one of which examines a healthcare outcome by looking at oral medication management. All other measures in this setting of care are process measures. One measure examining home health care provider assessment of patient medications was worsening over time.

Sub-Area	Measure Title (Data Source)	Baseline Rate and Year	Current Rate and Year	AAPC	P-value
Medication Safety	Home health care patients whose management of oral medications improved (OASIS)	51.9% in 2013	67.7% in 2017	-9.5	0.006
Surgical Safety	Home health care patients whose surgical wound was improved (OASIS)	89.3% in 2013	91.5% in 2017	-5.7	0.009
Falls	Adults who reported a home health provider talking with them about how to set up their home so they could move around safely when they first started getting home health care (HHCAPHS)	74.2% in 2012	76.6% in 2018	-1.5	0
Medication Safety	Adults who reported a home health provider talking with them about all the prescription and over-the-counter medicines they were taking when they first started getting home health care (HHCAPHS)	83.8% in 2012	84.1% in 2018	-0.04	0.816
Medication Safety	Adult home health patients age 18 and over who reported that home health providers talked with them about the side effects of medicines in the last 2 months of care (HHCAPHS)	26.4% in 2012	24.2% in 2018	0.5	0
Medication Safety	Adults who reported that home health providers talked with them about the purpose for taking their new or changed prescription medicines in the last 2 months of care (HHCAPHS)	33.1% in 2012	31.0% in 2018	0.5	0.002
Medication Safety	Adults who reported that home health providers talked with them about when to take medicines in the last 2 months of care (HHCAPHS)	30.7% in 2012	28.3% in 2018	0.6	0.001

Sub-Area	Measure Title (Data Source)	Baseline Rate and Year	Current Rate and Year	AAPC	P-value
Medication Safety	Adults who reported a home health provider asking to see all the prescription and over-the-counter medicines they were taking when they first started getting home health care (HHCAPHS)	78.8% in 2012	76.5% in 2018	1.8	0

Table 8. Nursing Home Care Measures

Among 5 nursing home care measures, 4 were improving over time. The single measure that was not changing over time examines long-stay nursing home patients who experience injuries after falls.

Sub-Area	Measure Title (Data Source)	Baseline Rate and Year	Current Rate and Year	AAPC	P-value
Procedural Event	Long-stay nursing home residents with a urinary tract infection (MDS)	4.9% in 2013	2.2% in 2017	-18.2	0.003
Pressure Ulcers	Short-stay nursing home patients with new or worsening pressure ulcers (MDS)	0.7% in 2013	0.4% in 2017	-10.8	0.002
Healthcare-Associated Infections	Low-risk, long-stay nursing home residents with a catheter inserted and left in the bladder (MDS)	3.4% in 2013	2.8% in 2017	-5.4	0.008
Pressure Ulcers	High-risk, long-stay nursing home patients with pressure ulcer (MDS)	5.3% in 2013	4.8% in 2017	-2.1	0.018
Falls	Long-stay nursing home patients experiencing one or more falls with major injury (MDS)	0.6% in 2013	0.6% in 2017	0.6	0.685

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Table 9. Medication Information Measures

Among all Care Coordination core measures, one medication information measure improved over time.

Sub-Area	Measure Title (Data Source)	Baseline Rate and Year	Current Rate and Year	AAPC	P Value
Prescription Medications and Treatment	People with a usual source of care who usually asks about prescription medications and treatments from other doctors (MEPS)	75.1% in 2002	81.5% in 2017	-1.7	0.001

Table 10. Preventable Emergency Department Visit Measures

Among all Care Coordination core measures, one measure pertaining to emergency department visits for asthma worsened over time.

Sub-Area	Measure Title (Data Source)	Baseline Rate and Year	Current Rate and Year	AAPC	P Value
Asthma	Emergency department visits for asthma per 10,000 population, ages 2-19 (NHAMCS)	82.5 per 10,000 population in 2008	102.7 per 10,000 population in 2016	2.2	0.041

Table 11. Preventable Hospitalizations Among Home Health and Nursing Home Patient Measures

Among all Care Coordination core measures, one measure pertaining to preventable emergency department visits worsened over time.

Sub-Area	Measure Title (Data Source)	Baseline Rate and Year	Current Rate and Year	AAPC	P Value
Emergency Department Visits	Home health care patients who had an emergency department visit and were then hospitalized (OASIS)	11.0% in 2013	12.2% in 2017	2.5	0.026

Table 12. Supportive and Palliative Care Measures

Three measures under supportive and palliative care examine the experiences of home health patients. Patient reporting of home health provider awareness of their past treatment plan showed improvement whereas number of patients who had an emergency department visit without a hospitalization worsened over time.

Sub-Area	Measure Title (Data Source)	Baseline Rate and Year	Current Rate and Year	AAPC	P Value
Patient-Provider Communication	Adults who reported that home health providers always seemed informed and up to date about all the care or treatments they got at home in the last 2 months of care (HHCAHPS)	62.2% in 2012	64.7% in 2018	-1.1	0
Hospital Admissions	Home health care patients who had to be admitted to the hospital (OASIS)	15.0% in 2013	14.3% in 2017	-1.2	0.105
Emergency Department Visits	Home health care patients who had an emergency department visit without a hospitalization (OASIS)	3.5% in 2013	3.9% in 2017	2.9	0.007

Table 13. Transitions of Care Measures

Among all Care Coordination core measures, one measure pertaining to communication about discharge information improved over time and another examining patient experience of providers who considered their preferences did not change over time.

Sub-Area	Measure Title (Data Source)	Baseline Rate and Year	Current Rate and Year	AAPC	P Value
Patient Discharge	Adult hospital patients who did not receive good communication about discharge information (HCAHPS)	15.8% in 2009	10.7% in 2018	-4.6	0

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Sub-Area	Measure Title (Data Source)	Baseline Rate and Year	Current Rate and Year	AAPC	P Value
Patient Discharge	Adult hospital patients who strongly disagree or disagree that staff took their preferences and those of their family and caregiver into account when deciding what the patient's discharge healthcare would be (HCAHPS)	5.4% in 2014	5.8% in 2018	1.6	0.146

Table 14. Usual Source of Care Measures

Among a total of 4 measures, 2 were found to be improving over time and 2 were not changing over time. These include measures regarding affordability of medical and dental care.

Sub-Area	Measure Title (Data Source)	Baseline Rate and Year	Current Rate and Year	AAPC	P Value
Medical Care	People unable to get or delayed in getting needed medical care due to financial or insurance reasons	52.3% in 2002	41.1% in 2017	-1.2	0.054
Prescription Medication	People unable to get or delayed in getting needed prescription medicines due to financial or insurance reasons	65.8% in 2002	57.6% in 2017	-1.1	0.001
Dental Care	People unable to get or delayed in getting needed dental care due to financial or insurance reasons	73.2% in 2002	70.7% in 2017	-0.07	0.795
Primary Care	People without a usual source of care who indicated a financial or insurance reason for not having a source of care	15.6% in 2002	12.7% in 2017	0.03	0.977

Table 15. Financial Burden of Healthcare Measures

The core set of measures includes only one measure that specifically examines the financial burden of healthcare. This measure was not changing over time.

Sub-Area	Measure Title (Data Source)	Baseline Rate and Year	Current Rate and Year	AAPC	P Value
Medical Care	People under age 65 whose family's health insurance premium and out-of-pocket medical expenditures were more than 10% of total family income (MEPS)	14.3% in 2002	16.4% in 2017	0.6	0.050

Table 16. Cancer Measures

Among a total of 6 cancer measures, all measures improved over time. These include measures regarding colorectal, breast, and lung cancer.

Sub-Area	Measure Title (Data Source)	Baseline Rate and Year	Current Rate and Year	AAPC	P Value
Colorectal Cancer	Patients with colon cancer who received surgical resection of colon cancer that included at least 12 lymph nodes pathologically examined (NCDB)	59.9% in 2005	92.5% in 2016	-13.5	0
Breast Cancer	Women under age 70 treated for breast cancer with breast-conserving surgery who received radiation therapy to the breast within 1 year of diagnosis (NCDB)	84.3% in 2005	92.1% in 2016	-6.8	0
Breast Cancer	Women with clinical Stage I-IIb breast cancer who received axillary node dissection or sentinel lymph node biopsy (SLNB) at the time of surgery (lumpectomy or mastectomy) (NCDB)	90.0% in 2005	94.0% in 2016	-4.0	0.006
Colorectal Cancer	Colorectal cancer deaths per 100,000 population per year (NVSS-M)	20.8 per 100,000 population in 2000	13.8 per 100,000	-2.4	0

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Sub-Area	Measure Title (Data Source)	Baseline Rate and Year	Current Rate and Year	AAPC	P Value
			population in 2017		
Lung Cancer	Lung cancer deaths per 100,000 population per year (NVSS-M)	56.1 per 100,000 population in 2000	36.6 per 100,000 population in 2017	-2.4	0
Breast Cancer	Breast cancer deaths per 100,000 female population per year (NVSS-M)	26.8 per 100,000 population in 2000	19.9 per 100,000 population in 2017	-1.8	0

Table 17. Cardiovascular Disease Measures

The core set of measures includes one measure examining hypertension. It is not changing over time.

Sub-Area	Measure Title (Data Source)	Baseline Rate and Year	Current Rate and Year	AAPC	P Value
CVD - Prevention of Heart Disease	Adults with hypertension with blood pressure less than 140/90 mm/Hg (NHANES)	10.6% in 2001-2004	18.2% in 2013-2016	-0.8	0.059

Table 18. Chronic Kidney Disease Measures

All 6 chronic kidney measures pertain to the care of end stage renal disease (ESRD). Three measures improved, and 3 did not change over time.

Sub-Area	Measure Title (Data Source)	Baseline Rate and Year	Current Rate and Year	AAPC	P Value
Chronic Care of ESRD	Adult hemodialysis patients with adequate dialysis - Kt/V 1.2 or higher (UMKECC)	93.0% in 2015	96.4% in 2018	-20.0	0.049
Chronic Care of ESRD	Adult end stage renal disease patients who saw a nephrologist at least 12 months prior to initiation of renal replacement therapy (USRDS)	25.7% in 2005	37.6% in 2017	-1.5	0
Chronic Care of ESRD	Adult hemodialysis patients who use arteriovenous fistulas as the primary mode of vascular access (USRDS)	62.1% in 2012	65.1% in 2017	-1.3	0.01
Chronic Care of ESRD	Dialysis patients who were registered on a waiting list for transplantation (USRDS)	15.2% in 2000	15.8% in 2017	-0.1	0.017
Chronic Care of ESRD	Patients with treated chronic kidney failure who received a transplant within 3 years of date of renal failure (USRDS)	19.1% in 2000	12.5% in 2014	0.6	0
Chronic Care of ESRD	Hemodialysis patients whose hemoglobin level was less than 10 g/dL (UMKECC)	20.7% in 2015	21.6% in 2018	1.1	0.009

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Table 19. Diabetes Measures

Seven measures relate to diabetes care and none were changing over time.

Sub-Area	Measure Title (Data Source)	Baseline Rate and Year	Current Rate and Year	AAPC	P Value
Diabetes – Management	Adults age 40 and over with diabetes whose condition was diagnosed (NHANES)	70.1% in 2001-2004	79.3% in 2013-2016	-2.6	0.172
Diabetes – Control	Adults age 40 and over with diagnosed diabetes with blood pressure less than 130/80 mm Hg (NHANES)	44.7% in 2001-2004	52.1% in 2013-2016	-1.4	0.125
Diabetes – Hospitalizations	Adjusted incident rates of end stage renal disease due to diabetes per million population (USRDS)	177.8 per million in 2001	165.7 per million in 2017	-0.6	0
Diabetes – Management	Adults age 40 and over with diagnosed diabetes who received a flu vaccination in the calendar year (MEPS)	58.2% in 2008	60.4% in 2017	-0.6	0.242
Diabetes – Management	Adults age 40 and over with diagnosed diabetes who received a dilated eye examination in the calendar year (MEPS)	62.1% in 2002	61.7% in 2017	-0.3	0.171
Diabetes – Management	Adults age 40 and over with diagnosed diabetes who received at least two hemoglobin A1c measurements in the calendar year (MEPS)	80.7% in 2002	74.6% in 2017	0.6	0.23
Diabetes – Management	Adults age 40 and over with diagnosed diabetes who had their feet checked for sores or irritation in the calendar year (MEPS)	73.0% in 2002	66.8% in 2017	0.9	0.051

Table 20. HIV/AIDS Measures

The core set of measures includes 3 measures that examine HIV management, among which one examines HIV infection mortality. All three measures were improving over time.

Sub-Area	Measure Title (Data Source)	Baseline Rate and Year	Current Rate and Year	AAPC	P Value
HIV/AIDS – Management	HIV infection deaths per 100,000 population (NVSS-M)	5.2 per 100,000 population in 2000	1.6 per 100,000 population in 2017	-7.2	0
HIV/AIDS – Management	New HIV cases per 100,000 population age 13 and over (HIV_AIDSSS)	19.0 per 100,000 population in 2008	14.6 per 100,000 population in 2016	-3.2	0
HIV/AIDS – Management	People age 13 and over living with HIV who know their serostatus (HIV_AIDSSS)	83.1% in 2010	85.8% in 2016	-2.9	0

Table 21. Mental Health and Substance Abuse Measures

Among the core set of 9 measures, only one measure showed improvement over time, depression treatment among nursing home residents. All other measures were not changing (n=5) or were worsening (n=3). The worsening measures include suicide mortality among people age 12 and over.

Sub-Area	Measure Title (Data Source)	Baseline Rate and Year	Current Rate and Year	AAPC	P Value
Depression Treatment	Long-stay nursing home residents with depression symptoms (MDS)	6.1% in 2013	4.5% in 2017	-7.4	0
Depression Treatment	Children ages 12-17 with a major depressive episode in the last 12 months who received treatment for depression in the last 12 months (NSDUH)	37.7% in 2008	41.4% in 2018	-0.9	0.001

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Sub-Area	Measure Title (Data Source)	Baseline Rate and Year	Current Rate and Year	AAPC	P Value
Substance Abuse Treatment	People age 12 and over who needed treatment for an alcohol problem who received such treatment at a specialty facility in the last 12 months (NSDUH)	8.2% in 2015	8.9% in 2018	-0.4	0.241
Substance Abuse Treatment	People age 12 and over treated for substance abuse who completed treatment course (TEDS)	41.3% in 2005	40.9% in 2017	0.5	0.085
Depression Treatment	Adults with a major depressive episode in the last 12 months who received treatment for depression in the last 12 months (NSDUH)	68.3% in 2008	64.8% in 2018	0.5	0.303
Substance Abuse Treatment	People age 12 and over who needed treatment for illicit drug use and who received such treatment at a specialty facility in the last 12 months (NSDUH)	18.3% in 2015	15.9% in 2018	0.5	0.715
Substance Abuse Treatment	Emergency department visits involving opioid-related diagnoses per 100,000 population (HCUP, NEDS)	89.1 per 100,000 population in 2005	249.1 per 100,000 population in 2017	10.3	0
Substance Abuse Treatment	Hospital inpatient stays involving opioid-related diagnoses per 100,000 population (HCUP)	136.8 per 100,000 population in 2005	299.7 per 100,000 population in 2017	6.1	0
Depression Treatment	Suicide deaths among people age 12 and over per 100,000 population (NVSS-M)	14 per 100,000 population in 2008	16.9 per 100,000 population in 2017	2.0	0

Table 22. Musculoskeletal Disease Measures

The core set of measures includes only one measure that examines musculoskeletal disease. This measure was not changing over time.

Sub-Area	Measure Title (Data Source)	Baseline Rate and Year	Current Rate and Year	AAPC	P Value
Musculoskeletal	Adults with chronic joint symptoms who have ever seen a doctor or other health professional for joint symptoms (NHIS)	70.5% in 2009	74.0% in 2018	-0.9	0.124

Table 23. Respiratory Disease Measures

The core set of measures includes 3 measures pertaining to respiratory disease. Two measures pertaining to respiratory treatment were improving over time. The core set also includes a Care Coordination measure pertaining to emergency department visits for asthma among children ages 2-19. Under the Effective Treatment quality domain, one measure pertaining to asthma management was not changing over time.

Sub-Area	Measure Title (Data Source)	Baseline Rate and Year	Current Rate and Year	AAPC	P Value
Treatment of Respiratory Infections	Doctor's office and emergency department visits where antibiotics were prescribed for a diagnosis of common cold per 10,000 population (NAMCS/NHAMCS)	108.8 per 10,000 population in 2011	42.9 per 10,000 population in 2016	-16.4	0.002
Treatment of Respiratory Infections	Patients with tuberculosis who completed a curative course of treatment within 1 year of initiation of treatment (NTBSS)	82.3% in 2004	89.3% in 2016	-5.3	0
Management of Asthma	People with current asthma who are now taking preventive medicine daily or almost daily (either oral or inhaler) (MEPS)	29.6% in 2003	22.3% in 2016	1.0	0

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Table 24. Clinical Preventive Measures: Adult Preventive Care

Among the core set of 14 measures, 7 measures were improving. Improving measures included one measure examining adult cholesterol, 2 cancer screening measures, and 4 measures pertaining to influenza or pneumonia vaccination. Six measures were not changing over time and one measure examining cervical cancer screening worsened over time.

Sub-Area	Measure Title (Data Source)	Baseline Rate and Year	Current Rate and Year	AAPC	P Value
Adult Cholesterol	Adults who received a blood cholesterol measurement in the last 5 years (NHIS)	73.2% in 2003	88.0% in 2017	-6.0	0.039
Colorectal Cancer Diagnosis	Colorectal cancer diagnosed at advanced stage (tumors diagnosed at regional or distant stage) per 100,000 population age 50 and over (NPCR_USCS)	101.6 per 100,000 population age 50+ in 2000	64.7 per 100,000 population age 50+ in 2016	-3.1	0
Adult Influenza Vaccination	Adults age 65 and over who received an influenza vaccination in the last flu season (NHIS)	59.7% in 2005	72.2% in 2018	-2.5	0
Adult Pneumonia Vaccination	Adults age 65 and over who ever received pneumococcal vaccination (NHIS)	53.4% in 2000	69.0% in 2018	-1.9	0
Adult Influenza Vaccination	Adults ages 18 and over who received influenza vaccination in the last flu season (NHIS)	37.0% in 2010	46.0% in 2018	-1.9	0
Cervical Cancer Diagnosis	Cervical cancer diagnosed at advanced stage (all invasive tumors) per 100,000 women age 20 and over (NPSC_USCS)	13.4 per 100,000 population age 20+ in 2000	10.7 per 100,000 population age 20+ in 2016	-1.2	0
Adult Influenza Vaccination	Adults ages 18-64 at high risk (e.g., COPD) who received an influenza vaccination in the last flu season (NHIS)	44.4% in 2010	50.8% in 2018	-1.2	0.013

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Sub-Area	Measure Title (Data Source)	Baseline Rate and Year	Current Rate and Year	AAPC	P Value
Adult Blood Pressure	Adults who received a blood pressure measurement in the last 2 years and can state whether their blood pressure was normal or high (NHIS)	90.4% in 2003	92.8% in 2017	-1.2	0.421
Adult Pneumonia Vaccination	Adults ages 18-64 at high risk (e.g., COPD) who ever received pneumococcal vaccination (NHIS)	15.4% in 2000	23.2% in 2018	-0.7	0
Breast Cancer Diagnosis	Breast cancer diagnosed at advanced stage (regional, distant stage, or local stage with tumor greater than 2 cm) per 100,000 women age 40 and over (NPCR_USCS)	95.6 per 100,000 women age 40+ in 2000	85.9 per 100,000 women age 40+ in 2016	-0.5	0
Adult Dental Visit	Adults with a dental visit in the calendar year (MEPS)	33.6% in 2002	33.9% in 2017	0.1	0.224
Adult Preventive Dental Service	Adults who received a preventive dental service in the calendar year (MEPS)	43.2% in 2002	41.6% in 2017	0.3	0.001
Breast Cancer Screening	Women ages 50-74 who received a mammogram in the last 2 years (BRFSS)	77.2% in 2000	72.8% in 2018	0.9	0.034
Cervical Cancer Screening	Women ages 21-65 who received a Pap smear in the last 3 years (BRFSS)	87.5% in 2000	80.5% in 2018	2.7	0.003

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Table 25. Clinical Preventive Measures: Childhood Immunization

Among the core set of 14 childhood immunization measures, 9 measures were improving and 5 measures were not changing over time. These measures pertain to tetanus-diphtheria-acellular pertussis (Tdap), human papillomavirus (HPV), diphtheria-tetanus-pertussis (DTP), measles-mumps-rubella (MMR), varicella, influenza, polio, and meningitis.

Sub-Area	Measure Title (Data Source)	Baseline Rate and Year	Current Rate and Year	AAPC	P Value
Adolescent – Tdap	Adolescents ages 16-17 who received 1 or more doses of tetanus toxoid, reduced diphtheria toxoid, and acellular pertussis since the age of 10 years (NIS_TEEN)	31.9% in 2008	89.0% in 2017	-18.6	0
Adolescent – Tdap	Adolescents ages 13-15 who received 1 or more doses of tetanus toxoid, reduced diphtheria toxoid, and acellular pertussis since the age of 10 years (NIS_TEEN)	46.7% in 2008	88.6% in 2017	-15.1	0
Adolescent - Meningitis	Adolescents ages 16-17 who received 1 or more doses of meningococcal conjugate vaccine (NIS_TEEN)	38.6% in 2008	85.6% in 2017	-14.4	0
Adolescent – HPV	Adolescent males ages 13-15 who received 3 or more doses of human papillomavirus vaccine (NIS_TEEN)	6.9% in 2012	30.4% in 2017	-6.0	0.001
Adolescent – HPV	Adolescent females ages 16-17 who received 3 or more doses of human papillomavirus vaccine (NIS_TEEN)	19.8% in 2008	51.2% in 2017	-4.9	0
Pediatric - Varicella	Children ages 19-35 months who received 1 or more doses of varicella vaccine (NIS)	76.3% in 2001	91.0% in 2017	-4.8	0
Adolescent – HPV	Adolescent females ages 13-15 who received 3 or more doses of human papillomavirus vaccine (NIS_TEEN)	16.6% in 2008	39.3% in 2017	-3.1	0

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Sub-Area	Measure Title (Data Source)	Baseline Rate and Year	Current Rate and Year	AAPC	P Value
Pediatric -Influenza	Children ages 6 months to 17 years who received influenza vaccination in the last flu season (NHIS)	42.1% in 2010	53.3% in 2018	-2.5	0.011
Pediatric – Polio	Children ages 19-35 months who received 3 or more doses of polio vaccine (NIS)	89.4% in 2001	92.7% in 2017	-2.0	0.011
Adolescent – HPV	Adolescent males ages 16-17 who received 3 or more doses of human papillomavirus vaccine (NIS_TEEN)	6.6% in 2012	6.6% in 2017	-2.5	0.535
Pediatric –DPT	Children ages 19-35 months who received 4 or more doses of diphtheria-tetanus-pertussis vaccine (NIS)	82.1% in 2001	83.2% in 2017	0.1	0.769
Pediatric – Hepatitis B	Children ages 19-35 months who received 3 or more doses of hepatitis B vaccine (NIS)	88.9% in 2001	91.4% in 2017	0.2	0.793
Pediatric – MMR	Children ages 19-35 months who received 1 or more doses of measles-mumps-rubella vaccine (NIS)	91.4% in 2001	91.5% in 2017	0.7	0.128
Adolescent - Meningitis	Adolescents ages 13-15 who received 1 or more doses of meningococcal conjugate vaccine (NIS_TEEN)	43.9% in 2008	84.9 % in 2017	12.7	0.0

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Table 26. Clinical Preventive Measures: Other Childhood Preventive Care

Among the 11 childhood preventive care measures, 6 improving measures pertain to multiple sub-areas, including pediatric counseling for travel safety, vision screening, wellness visits, and height/weight. Five measures were not changing over time, including preventive dental care, counseling for travel safety, and counseling regarding the dangers of secondhand smoke.

Sub-Area	Measure Title (Data Source)	Baseline Rate and Year	Current Rate and Year	AAPC	P Value
Pediatric Height and Weight	Children who had their height and weight measured by a health provider within the past 2 years (MEPS)	86.7% in 2002	94.3% in 2017	-5.1	0
Pediatric Wellness Visit	Children ages 0-17 with a wellness checkup in the past 12 months (NHIS)	71.0% in 2000	86.5% in 2018	-4.4	0
Pediatric Vision Screening	Children ages 3-5 who ever had their vision checked by a health provider (MEPS)	54.5% in 2002	69.9% in 2017	-2.8	0
Counseling – Travel Safety	Children 41-80 lb for whom a health provider gave advice within the past 2 years about using a booster seat when riding in the car (MEPS)	26.8% in 2002	46.4% in 2017	-1.5	0
Counseling – Travel Safety	Children 0-40 lb for whom a health provider gave advice within the past 2 years about using a child safety seat while riding in the car (MEPS)	56.7% in 2002	64.4% in 2017	-1.3	0
Counseling – Travel Safety	Children over 80 lb for whom a health provider gave advice within the past 2 years about using lap or shoulder belts when riding in a car (MEPS)	26.9% in 2002	36.9% in 2017	-1.1	0
Pediatric Dental Caries	Children ages 5-17 with untreated dental caries (NHANES)	22.3% in 1999-2002	15.9% in 2013-2016	-2.0	0.174
Counseling – Secondhand Smoke	Children for whom a health provider gave advice within the past 2 years about how	38.8% in 2002	48.2% in 2017	-0.9	0.001

Sub-Area	Measure Title (Data Source)	Baseline Rate and Year	Current Rate and Year	AAPC	P Value
	smoking in the house can be bad for a child (MEPS)				
Counseling – Travel Safety	Children ages 2-17 for whom a health provider gave advice within the past 2 years about using a helmet when riding a bicycle or motorcycle (MEPS)	31.2% in 2002	40.0% in 2017	-0.7	0
Pediatric Dental Visit	Children ages 2-17 who had a dental visit in the calendar year (MEPS)	49.1% in 2002	54.2% in 2017	-0.7	0
Pediatric Preventive Dental Service	Children ages 2-17 who received a preventive dental service in the calendar year (MEPS)	40.0% in 2002	46.9% in 2017	-0.7	0

Table 27. Clinical Preventive Measures: Overall Preventive Care

The core set of 5 measures include 2 measures that were improving over time that look at influenza vaccination in home health and nursing home health. Two nursing home measures did not change over time and one measure examining pneumococcal vaccination in long-stay nursing home residents worsened over time.

Sub-Area	Measure Title (Data Source)	Baseline Rate and Year	Current Rate and Year	AAPC	P Value
Home Health	Home health patients who had influenza vaccination during flu season (OASIS)	71.5% in 2013	95.0% in 2017	-38.5	0.005
Nursing Home	Long-stay nursing home patients who were assessed and appropriately given the seasonal influenza vaccine (MDS)	90.0% in 2013	91.2% in 2017	-3.5	0.005
Nursing Home	Short-stay nursing home patients who had flu vaccination appropriately given (MDS)	86.8% in 2013	86.7% in 2017	-0.1	0.922
Nursing Home	Short-stay nursing home residents who were assessed for pneumococcal vaccination (MDS)	85.6% in 2013	85.7% in 2017	0.1	0.911

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Sub-Area	Measure Title (Data Source)	Baseline Rate and Year	Current Rate and Year	AAPC	P Value
Nursing Home	Long-stay nursing home residents who were assessed for pneumococcal vaccination (MDS)	93.8% in 2013	92.5% in 2017	4.8	0.006

Table 28. Functional Status Preservation and Rehabilitation Measures

Among the core set of 6 measures, 4 home health measures were improving over time. One nursing home measure also improved and one measure was not changing over time.

Sub-Area	Measure Title (Data Source)	Baseline Rate and Year	Current Rate and Year	AAPC	P Value
Home Health	Home health care patients whose ability to get in and out of bed improved (OASIS)	57.9% in 2013	75.6% in 2017	-12.8	0.007
Home Health	Home health care patients whose ability to walk or move around improved (OASIS)	62.2% in 2013	76.4% in 2017	-11.3	0.003
Home Health	Home health care patients whose bathing improved (OASIS)	68.3% in 2013	78.7% in 2017	-9.7	0.007
Home Health	Home health care patients who had improvement in toileting (OASIS)	69.1% in 2013	75.2% in 2017	-5.6	0.013
Nursing Home	Long-stay nursing home residents whose need for help with daily activities increased (MDS)	22.8% in 2013	20.7% in 2017	-3.3	0.063
Nursing Home	Long-stay nursing home residents whose ability to move independently worsened (MDS)	24.5% in 2013	23.9% in 2017	-1.4	0.273

Table 29. Supportive and Palliative Care Measures

Among the core set of 9 measures, 6 measures pertaining to nursing home care and home health care improved over time. Two measures, one examining weight loss in nursing home residents, did not change over time. One nursing home measure examining bowel and bladder control among residents worsened over time.

Sub-Area	Measure Title (Data Source)	Baseline Rate and Year	Current Rate and Year	AAPC	P Value
Nursing Home	Long-stay nursing home residents with physical restraints (MDS)	1.3% in 2013	0.4% in 2017	-27.6	0
Home Health	Home health care patients whose shortness of breath decreased (OASIS)	65.2% in 2013	78.0% in 2017	-11.1	0.006
Nursing Home	Short-stay nursing home residents with moderate to severe pain (MDS)	17.7% in 2013	11.3% in 2017	-10.8	0.002
Home Health	Home health care patients whose pain when moving around decreased (OASIS)	68.1% in 2013	78.7% in 2017	-9.9	0.013
Nursing Home	Long-stay nursing home residents with moderate to severe pain (MDS)	9.2% in 2013	6.2% in 2017	-9.7	0.002
Home Health	Home health patients who had improvement in upper body dressing (OASIS)	70.8% in 2013	78.2% in 2017	-7.3	0.01
Nursing Home	Long-stay nursing home residents with too much weight loss (MDS)	5.6% in 2013	5.3% in 2017	-1.0	0.137
Home Health	Home health care patients who stayed at home after an episode of home health care (OASIS)	81.3% in 2013	81.9% in 2017	-0.9	0.104
Nursing Home	Low-risk, long-stay nursing home residents with loss of control of bowels or bladder	64.2% in 2013	74.3% in 2017	3.1	0.075

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Table 30. Lifestyle Modification Measures

Among the core set of 8 measures, 5 measures improved over time. These measures examine related topics, including diet, obesity, smoking in adults, and exercise or fitness. Three measures were not changing over time and include measures examining pediatric and adult obesity.

Sub-Area	Measure Title (Data Source)	Baseline Rate and Year	Current Rate and Year	AAPC	P Value
Pediatric Diet and Obesity	Children ages 2-17 for whom a health provider gave advice within the past 2 years about healthy eating (MEPS)	46.9% in 2002	65.6% in 2017	-2.8	0
Smoking in Adults	Adult current smokers who had a doctor's office or clinic visit in the last 12 months who received advice from their providers to quit smoking (MEPS)	65.2% in 2002	76.5% in 2017	-2.5	0
Pediatric Exercise and Fitness	Children ages 2-17 for whom a health provider gave advice within the past 2 years about the amount and kind of exercise, sports, or physically active hobbies they should have (MEPS)	30.0% in 2002	49.1% in 2017	-2.2	0
Adult Diet and Obesity	Adults with obesity age 20 and over who had been told by a doctor or health professional that they were overweight (NHANES)	64.5% in 2001-2004	70.5% in 2013-2016	-1.5	0.046
Adult Exercise and Fitness	Adults with obesity who ever received advice from a health professional to exercise more (MEPS)	55.8% in 2002	62.4% in 2016	-1.3	0
Pediatric Weight	Children with obesity 2-19 years of age who had been told by a doctor or health professional that they were overweight (NHANES)	39.3% in 2001-2004	44.3% in 2013-2016	-0.7	0.058

Sub-Area	Measure Title (Data Source)	Baseline Rate and Year	Current Rate and Year	AAPC	P Value
Adult Diet and Obesity	Adults with obesity who ever received advice from a health professional about eating fewer high-fat or high-cholesterol foods (MEPS)	48.0% in 2002	47.8% in 2016	-0.4	0.034
Pediatric Diet and Obesity	Children ages 2-19 with obesity (NHANES)	16.3% in 2001-2004	17.8% in 2013-2016	0.8	0.104

Table 31. Maternal and Child Health Measures

Among the core set of 3 measures, only one measure, which examines breastfeeding, improved over time. Two measures examined infant mortality and low-birth weight. These measures were not changing over time.

Sub-Area	Measure Title (Data Source)	Baseline Rate and Year	Current Rate and Year	AAPC	P Value
Breastfeeding	Infants born in the calendar year who received breastfeeding through 3 months (NIS)	35.9% in 2009	47.5% in 2016	-2.9	0
Infant Mortality	Infant mortality per 1,000 live births, birth weight 2,500 grams or more (NVSS-L)	2.4 per 1,000 live births in 2001	2.0 per 1,000 live births in 2017	-1.0	0
Infant Birth Weight	Live-born infants with low birth weight (less than 2,500 g) (NVSS-L)	8.2% in 2007	8.3% in 2018	0.1	0.545