

The following appendices are part of a Commonwealth Fund issue brief, Benjamin Zhu and Sherry A. Glied, *More Is More: Expanding Access to Primary Care While Maintaining Quality* (Commonwealth Fund, July 2021), <https://www.commonwealthfund.org/publications/issue-briefs/2021/jul/more-is-more-expanding-access-primary-care-maintaining-quality>.

APPENDIX TABLE 1

Quality Indicators, Denominators, Numerators, and Prominent Exclusions

Indicator	Denominator	Numerator	Exclusions
<i>Guideline concordant care</i>			
Treatment for CHF	Visits by adults diagnosed with CHF	Visits by adults with CHF who received ACE inhibitors or angiotensin receptor blockers	Hyperkalemia, angioedema
Beta-blockers for CAD	Visits by adults with CAD	Visits by adults with CAD who received a beta-blocker	COPD, asthma, heart block
Treatment for hypertension	Visits by adults with hypertension	Visits by adults with hypertension who received a diuretic, calcium channel blocker, ace inhibitor, or beta-blocker	None
Statins for hyperlipidemia	Visits by adults with hyperlipidemia	Visits by adults with hyperlipidemia who received a statin	Cirrhosis, liver disease, hepatitis, alcoholism, pregnancy, renal disease
Statins for DM	Visits by adults with DM	Visits by adults with DM who received a statin	Cirrhosis, liver disease, hepatitis, alcoholism, pregnancy, renal disease
Statins for CAD	Visits by adults with CAD	Visits by adults with CAD who received a statin	Cirrhosis, liver disease, hepatitis, alcoholism, pregnancy, renal disease
Asthma treatment	Visits by adults with asthma	Visits by adults with asthma who received an IC or SABA	None
Treatment of depression	Visits by adults with depression	Visits by adults with depression who received antidepressants, psychotherapy, or mental health counseling	None
<i>Measures of overuse</i>			
No benzodiazepine use for depression	Visits by adults with depression	Visits by adults with depression who did not receive a benzodiazepine	Anxiety
No routine EKG	GME visits by adults	GME visits by adults who did not receive an EKG	CAD, hypertension, renal disease, chest pain
No routine urinalysis	GME visits by adults	GME visits by adults who did not receive urinalysis	Pregnancy
No antibiotic use for upper respiratory tract infections	Visits by adults with uncomplicated upper respiratory tract infection	Visits by adults with uncomplicated upper respiratory tract infection who did not receive antibiotics	Diabetes, cancer

APPENDIX TABLE 1 (CONTINUED)

Quality Indicators, Denominators, Numerators, and Prominent Exclusions

Indicator	Denominator	Numerator	Exclusions
<i>Preventive counseling and screening</i>			
Tobacco counseling	Visits by current tobacco users who had GMEs	Visits by current tobacco users who had GMEs who received tobacco use counseling	None
Diet in adults	Visits by adults at moderate or high risk for CAD with GMEs	Visits by adults at moderate or high risk for CAD with GMEs who received diet counseling	None
Exercise in adults	Visits by adults at moderate or high risk for CAD with GMEs	Visits by adults at moderate or high risk for CAD with GMEs who received exercise counseling	None
Blood pressure check	GME visits by adults	GME visits by adults where blood pressure was measured	None
Cholesterol testing	Visits by adults	Visits by adults where cholesterol testing was ordered	None
Retinal exam	Visits by adults	Visits by adults where a retinal exam was conducted	None
Rectal exam	Visits by adults	Visits by adults where a rectal exam was performed	None
Pap Test	Visits by women	Visits by women where a Pap test was performed	None
Breast exam	Visits by women	Visits by women where a breast exam was performed	None
Pelvic exam	Visits by women	Visits by women where a pelvic exam was performed	None
Mammogram	Visits by women older than 40	Visits by women older than age 40 where a mammogram was performed	None
PSA test	Visits by men older than 50	Visits by men older than age 50 where a PSA test was ordered	None
<i>Other</i>			
Return appointment	Visits by adults	Visits by adults where a return visit was ordered	None
Referred to other physician	Visits by adults	Visits by adults where a referral was ordered	None

Notes: CHF = chronic heart failure; CAD = coronary artery disease; COPD = chronic obstructive pulmonary disease; DM = diabetes mellitus, IC = inhaled corticosteroid; SABA = short-acting beta agonist; EKG = electrocardiogram; GME = general medical examination; PSA = prostate-specific antigen. To identify the drugs used, we use a combination of Multinum drug class codes and generic drug codes. Data on CHF, hypertension, CAD, hyperlipidemia, asthma, depression, and COPD are collected by the National Ambulatory Medical Care Survey outside of reason for visit and diagnosis codes. For other conditions, we use reason for visit and diagnosis codes to identify certain conditions to exclude or include. Appendix tables 2 and 3 include these codes.

Data: Authors' analysis of the National Ambulatory Medical Care Survey (NAMCS).

APPENDIX TABLE 2
Drug Codes

Drug/Drug class	Multinum drug class codes	Generic drug codes
ACE inhibitors	042	
Angiotensin-receptor blockers	056	
Beta blockers	047, 274, 275	
Diuretics	049, 154, 155, 156, 157, 158	
Calcium-channel blockers	048	
Statins	173	
Inhaled corticosteroids	296	
Inhaled short-acting beta agonists		d00749, n08033, d04066, n09036, n09052, a11316, d04427
Antidepressants	249, 076, 208, 209, 250, 306, 307, 308	
Benzodiazepines	069	
Antibiotics	013, 222, 223, 224, 225, 226, 008, 009, 159, 160, 161, 162, 379, 010, 011, 304, 305, 012, 014, 015, 016, 017, 018, 240, 315, 406	

Data: Authors' analysis of the National Ambulatory Medical Care Survey (NAMCS).

APPENDIX TABLE 3
Reason for Visit and Diagnosis Codes

Condition/ Procedure	Reason for visit code	ICD-9 code		ICD-10 code	
		ICD-9 code	ICD-10 code	ICD-9 code	ICD-10 code
General medical exam	31000	V700-	Z000-		
Cirrhosis		5712-, 5715-, 5716-,	K717, K703, K74-, K743, K744, K745, K746		
Liver disease		5718-, 5719-, 5728-, 75162	K760, K768, K741, K769, K721, K729		
Hepatitis		070, 09162, 1305-, 5711-, 5712-, 5714-, 5731-, 5732-, 5733-	B16-, B160, B161, B162, B169, B17, B170, B171, B172, B178, B179, B18-, B180, B181, B182, B188, B189, B19-, B190, B199, K711, K712, K713, K714, K715, K716		
Alcoholism		303, V113-	F10-, F101, F102, F103, F104, F105, F106, F107, F108, F109		
Pregnancy		V222-	Z331		
Hyperkalemia		2767-	E875		
Diabetes mellitus	22050	249, 250	E10-, E11-, E12-, E13-, E14-		
Angioedema		2776-, 9951-	D841, T783		
Heart block		426	I44-, I440, I441, I442, I443, I444, I445, I446, I447, I45-, I450, I451, I452, I453, I454, I455, I456		
Chest pain	10500				
Upper respiratory tract infection	1445				

Data: Authors' analysis of the National Ambulatory Medical Care Survey (NAMCS).