

AN EXAMPLE: CALCULATING THE COST OF PROVIDING AN ADULT PHYSICAL EXAM

Family physicians in a two-person practice would like to know the true cost of providing an adult physical exam in their office. The practice wants to determine whether a private insurer is compensating them adequately and whether they should try to negotiate a better reimbursement rate.

Using data for fiscal year 2002, the physicians completed the following unit cost analysis. The practice also kept time diaries for one week to determine the physician and staff time required for an average adult physical examination.

In the end, the physicians found that an average adult physical examination costs \$64.44.

Steps	Notes	Calculations
1. Define the unit of service:	An adult physical examination	
2. Determine the number of units of service provided in the defined time period:	2,000 adult physical examinations in fiscal year 2002	
3. Calculate the direct costs:		
Physician cost:	Salary and benefits of \$150,000 per year ÷ 50 work weeks per year ÷ 40 work hours per week ÷ 60 minutes per hour = \$1.25 per minute × 15 minutes required	\$18.75
Nurse cost:	Salary and benefits of \$45,000 per year ÷ 50 work weeks per year ÷ 40 work hours per week ÷ 60 minutes per hour = \$0.375 per minute × 10 minutes required	+ \$3.75
Receptionist cost:	Salary and benefits of \$25,000 per year ÷ 50 work weeks per year ÷ 40 work hours per week ÷ 60 minutes per hour = \$0.208 per minute × 5 minutes required	+ \$1.04
Disposable resources:	Per the practice's supply catalog	+ \$5.50
Laboratory tests:	Per typical charges	+ \$15.00
Other:		—
Total direct costs per unit of service:		\$44.04
4. Calculate the indirect costs:		
Rent, utilities, etc.:		\$60,000 / yr.
Administrative salaries and benefits:		+ \$50,000 / yr.
Insurance:		+ \$90,000 / yr.
Other:		
Total :		\$200,000 / yr.
Basis of allocation:	Percentage of total visits	
Allocation rate:	20 percent of patient visits in FY2002 were for adult physical exams	× .20
Number of units of service provided:	From step 2, above	÷ 2,000
TOTAL indirect costs per unit of service:		\$20.00
5. Calculate depreciation and the value of donated goods and services:		
Initial cost of equipment associated with the service:		\$50,000
Resale value at the end of its useful life:		-\$10,000
Total :		\$40,000
Estimated years the practice will use the equipment:		÷ 10 years
Basis of allocation:	Ratio of total visits	
Allocation rate:	20 percent of patient visits in FY2002 were for adult physical exams	× .20
Number of units of service provided:	From step 2, above	÷ 2,000
Total depreciation per unit of service:		\$.40
Donated goods:	Calculate depreciation in the same manner as above	
Volunteer time:	Market value × allocation rate ÷ number of units of service	
Total depreciation and donated goods and services per unit of service:		\$0.40
6. Calculate the unit cost:		
Total from step 3:		\$44.04
Total from step 4:		+\$20.00
Total from step 5:		+\$0.40
Total cost per unit of service:		\$64.44