

Starting a Practice: Critical Economic Decisions Associated with Locating and Operating a Rural Primary Care Practice



Prepared by:

**National Center for Rural Health Works
Oklahoma State University
Oklahoma Cooperative Extension Service**

**Oklahoma Center for Rural Health
Oklahoma Office of Rural Health, OSU Health Sciences Center
College of Osteopathic Medicine, Oklahoma State University**

March 2009

Starting a Practice: Critical Economic Decisions Associated with Locating and Operating a Rural Primary Care Practice

Fred C. Eilrich
Assistant State Extension Specialist
Email: eilrich@okstate.edu

Gerald A. Doeksen
Regents Professor and Extension Economist
Email: gad@okstate.edu

Cheryl F. St. Clair
Associate State Extension Specialist
Email: Cheryl@okstate.edu

National Center for Rural Health Works
Oklahoma Cooperative Extension Service
Oklahoma State University

513 Ag Hall
Stillwater, OK 74078
Phone: 405-744-6083
Fax: 405-744-9835

Website: www.ruralhealthworks.org

William Pettit
Associate Dean for Rural Health and Professor Family Medicine
Email: william.j.pettit@okstate.edu

Val Schott
Director, Center for Rural Health
Email: val.schott@okstate.edu

Center for Rural Health
Oklahoma State University Center for Health Sciences

March 2009

STARTING A PRACTICE: CRITICAL ECONOMIC DECISIONS ASSOCIATED WITH LOCATING AND OPERATING A RURAL PRIMARY CARE PRACTICE

Upon graduation, new physicians are faced with a new set of challenges regarding their future direction. The options include becoming a staffed physician at a hospital, partnering with an existing physician or starting and operating their own practice. The decision process can be difficult if adequate preparation is not made. While these new graduates are equipped with the best medical training, many are searching for additional “real world” information to enable a successful transition to employment.

There are a lot of decisions that must be made, particularly if the physician chooses to open a practice. Decisions relative to location, building (purchase, construct or lease), equipment, staffing requirements, etc. are all part of the process. Some of these decisions will require considerable time, i.e., securing funding for purchasing or constructing a new building. The American Academy of Family Physicians provides the following example of a timetable for starting a practice [1]. Additional time might be required for architectural services, permit requirements and financing if a physician chooses new construction as opposed to leasing.¹

One year before opening a practice

1. Establish personal and professional goals.
2. Select a geographic location.
3. Evaluate possibilities for recruitment assistance from hospitals.

Six months before opening a practice

1. Decide on office location and start lease negotiations.
2. Select professional advisors.
3. Decide on mode of practice.
4. Begin obtaining required federal and state licenses.
5. Seek sources of funding.
6. Determine deadlines for Yellow Pages and other advertising outlets.
7. Approach third-party payors to become a participating physician.

¹Originally adapted from Kalogredis, VJ. Burke MR. In: Rust G, Ferris ME, eds. *Before the First Patient*. Kansas City, Mo: AAFP; 1997:10. Augmented by Clayton L. Scroggins Associates. Inc. and Donald L. DeMuth Professional Management Consultants.

Three to six months before opening a practice

1. Apply for hospital staff privileges.
2. Begin to recruit office staff.
3. Begin to establish professional contacts.
4. Purchase or lease office furniture and equipment.
5. Select bank and professional liability insurer.
6. Develop fee schedule and establish a billing system.
7. Select a computer system.

One to three months before opening a practice

1. Finalize office staff.
2. Create an official policy manual.
3. Finalize required licenses and permits.
4. Advertise in your local area.
5. Purchase needed office and clinical supplies.
6. Establish scheduling and patient recall systems.
7. Attempt to establish coverage-sharing arrangements.
8. Continue to establish professional contacts.

Once a new physician has carefully outlined personal and professional goals, the next challenge is to determine the location of the practice. The physician should make this decision based on personal reasons and (most importantly) opportunities for professional success. In particular, a community's potential for supporting a new family physician must be evaluated. This study addresses two distinct aspects critical to the financial success of a new physician: (1) to estimate the number of primary care physicians a medical service area can support, and (2) to estimate the costs and revenues associated with opening and operating a rural primary care physician practice. A straight-forward methodology is used to assess the population in a service area and to determine, based on the number of physicians currently practicing in the area, whether additional physician services are needed. Additional information will be presented to evaluate the feasibility of choosing a particular location such as:

- Estimate potential visits,
- Estimate practice revenues, and
- Estimate capital and operating costs.

This information will provide a template for prospective physicians or community leaders to estimate potential physician income for a specific medical service area. Users can easily adapt the data to make the template applicable to other states.

Estimating Potential Local Physician Office Visits

To evaluate a community's ability to support an additional physician, a prospective family physician needs to estimate the demand for services by estimating potential local office visits. The number of all physician office visits is estimated by using specific service area population data along in conjunction with data from state and national research [2,3,4]. Data in **Table 1** present the number of annual visits to all physician offices by specified age and gender in 2006. For instance, for males under age 15, the average number of physician office visits was 2.6 visits per year. Utilization rates and office visits per physician might vary slightly with rural primary care physicians. Research suggests that utilization per person in rural areas might be lower than the national average due to lower patient incomes and lower rates of insurance coverage [5]. Increased patient visits and longer work hours for rural physicians has also been documented [6]. However, in the absence of specific rural data, national coefficients serve as the best available approximations. Rural medical service areas have a higher proportion of elderly, making age analysis critical for estimating the number of rural visits.

The population estimates by age and gender for a medical service area can be obtained from the U.S. Census Bureau [7]. A typical rural community with a population of 9,151 is illustrated in **Table 2**. The average annual visit rates from **Table 1** were applied to estimate the number of primary care physician office visits in the service area. For example, the 975 males in the medical service area under the age of 15 will generate 2,535 physician office visits (2.6×975). Females under 15 were estimated to generate 2,400 office visits. All the residents in the

Table 1
Average Annual Primary Care Physician Office Visits per Person
by Age and Gender, United States, 2006

Age	Visit Rate ¹	
	Male	Female
< 15	2.6	2.6
15-24	1.1	2.4
25-44	1.6	3.0
45-64	3.0	3.9
65-74	5.5	6.0
75+	7.1	7.3

¹Visit rates are based on 2006 U.S. Census Bureau population estimates.

Source: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center of Health Statistics, "National Ambulatory Medical Care Survey, 2006 Summary," No. 3, August 6, 2008.

medical service area were estimated to make 27,785 total physician office visits per year.

However, not all office visits are made to primary care physicians. Some are made to specialists who tend to reside in regional population centers. Data from the U.S. Department of Health and Human Services [2] estimated that 58.3 percent or 16,199 of these total physician office visits were made to physicians or midlevel practitioners such as physician assistants or nurse practitioners active in primary patient care while the remainder were be made to specialists.

Types of Visits

Visits should be categorized by type (i.e., office, emergency room, hospital, or nursing home visits) in order to estimate the revenue they will generate. In addition, the considerable differences among physician practices need to be considered. It would be difficult to find two clinics that were exactly the same when comparing size, operational goals, available services and time established. These differences are largely related to community size and needs but are also

Table 2
Annual Primary Care Physician Office Visits Generated
in an Example Medical Service Area

PRIMARY MEDICAL SERVICE AREA							
	Male			Female			
Age	2006 Population	Visit Rate	Visits	2006 Population	Visit Rate	Visits	Total Visits
< 15	975	2.6	2,535	923	2.6	2,400	4,935
15-24	814	1.1	895	759	2.4	1,822	2,717
25-44	1,248	1.6	1,997	1,224	3.0	3,672	5,669
45-64	1,012	3.0	3,036	1,066	3.9	4,157	7,193
65-74	284	5.5	1,562	329	6.0	1,974	3,536
75+	<u>194</u>	7.1	<u>1,377</u>	<u>323</u>	7.3	<u>2,538</u>	<u>3,735</u>
Total	4,527		11,402	4,624		16,383	27,785
Local Primary Care Physician Office Visits: (58.3%)							16,199

Source: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center of Health Statistics, "National Ambulatory Medical Care Survey, 2006 Summary", No. 3, August 6, 2008; U.S. Census Bureau.

influenced by individual preferences of the physicians. Physician clinics in the first year of practice are adapting as relationships with new patients are developed resulting in a proportionately larger number of initial office visits. Established clinics may serve more returning patients and therefore operations are based on the needs of those patients

To obtain data that could be used to help new physicians, surveys were sent to twenty-five practices in Oklahoma. The goals of the survey were to identify the types and proportional mixes of visits managed by primary care physicians and to ascertain costs and revenues associated with these practices. These practices were believed to be demonstrative of typical rural primary care physician practices. Thirteen responses to the survey were returned.

Although not all of the surveys were complete, aggregation techniques enabled all responses to be included.

The physicians surveyed represented practices in rural medical service areas with populations ranging from 1,200 to 9,000 residents. The median years in practice were nine years. However, the surveys also included new physicians (in practice for less than two years) and well-established practices of four to 30 years. The survey included solo practices as well as clinics operating with multiple physicians. The clinics also varied regarding the use of midlevel practitioners. Table 3 displays the type of visits showing a significant variation in the total annual visits per physician. Total visits including all types ranged from 3,550 to 7,720 annual visits per physician. Visits were adjusted for those clinics that included more than one physician or midlevel practitioners. It was assumed that nurse practitioners observed one-half the number of visits compared to a physician or physician assistant. The average number of total annual visits per physician was 5,640. The average number of office visits was 5,104 with the remaining visits occurring in hospitals, emergency rooms and nursing homes.

Estimating the proportion of initial visits is important as they require more time due to discussion of medical histories and often have charges in addition to the basic visit charge for such services as injections, laboratory procedures and radiology. These differences are reflected in a greater average fee per visit. As illustrated in the table, the number of initial visits averaged 15 percent of office visits. This number of initial visits could be higher in the earlier years of a practice as doctor-patient relationships are still forming. The remaining office visits were typically categorized as routine or established office visits.

Finally, the number of visits outside the office varied significantly among the physicians surveyed. This is most likely due to location, but the survey data suggests that length of

establishment might also influence the number of additional visits. The clinics with the three largest proportions of additional visits were operated by physicians that had been in practice in their current location for at least 10 years. Visits to the emergency room were included with total hospital visits.

Table 3
Annual Primary Care Physician Visits by Type per Physician

Type	Low	High	Average
Total Visits	3,550	7,720	5,640
Total Office Visits	3,150	7,200	5,104
Percent Initial Office Visits	5%	35%	15%
Percent Routine Office Visits	65%	95%	85%
Percent Hospital ¹ & Nursing Home			10%

¹Emergency room visits are included with hospital visits.

Source: 2008 survey of Oklahoma physicians.

Evaluating a Prospective Practice

Personal preferences and estimated need for additional physician services are just the first steps to evaluating the probable success of a new practice. Careful evaluation of potential revenues and costs are necessary to determine if the income generated from the practice is sufficient to meet the physician's goals. Information collected from the surveys was used to estimate total practice revenues along with capital and operating costs associated with a typical rural primary care clinic. The templates can be used to incorporate local information, thereby constructing a sample budget for a prospective practice.

Estimating Total Practice Revenues

Total practice revenues can be estimated by multiplying the total number of visits by the amount of collected fees for those services. The total collected fees for each visit vary

significantly depending on the type of visit, a patient's current health status, age of the patient and the patient's ability to pay. Additionally, the patient's ability to pay for services delivered is greatly influenced by fee schedules from the primary payor sources. All insurance policies whether privately held or government provided have specific fee schedules for physician and ancillary services.

Data in **Table 4** present average fees along with collection rates for various visits as reported from the physician survey. In addition, a range is specified for each visit category. For example, the average fees for a typical physician office visit obtained from all physicians surveyed totaled \$84 but ranged from \$50 to \$121. As previously discussed, the total average fees for an initial visit was higher (\$111) compared to the total fees for a routine office visit (\$79). Total fees for a typical hospital and nursing home visit averaged \$103 and \$93, respectively. Finally, estimates of total practice revenues will be overestimated if actual fees are used rather than collection rates. Results in **Table 4** indicate that only 62 to 77 percent of total charges will actually be collected, dependent on the type of visit.

Table 4
Typical Primary Care Physician Fees per Visit

Type	Low	High	Average	Collection Rate	Average Collected
Office Visit	\$50	\$121	\$84	76%	\$64
Initial Office Visit	\$75	\$160	\$111	73%	\$81
Routine Office Visit	\$50	\$105	\$79	77%	\$61
Hospital Visit	\$70	\$124	\$103	62%	\$64
Nursing Home Visit	\$50	\$200	\$93	75%	\$70

Source: 2008 survey of Oklahoma physicians.

A breakdown of visits by payor source should also be considered when estimating total revenues. There were significant differences in total fees and collections for each payor source. The results presented are not to suggest that patients were charged according to their payor source, but to identify demographic differences and variation in fee schedules. As shown in **Table 5**, average total fees for Medicare patients are the highest because members of this age group typically have multiple chronic conditions that require longer visits and more ancillary services. These same conditions result in more frequent visits as well (**See Table 1**). In contrast, the charges to uninsured patients are lower than private pay because many patients refuse some of examinations and laboratory procedures. The difference in revenue collections among payor

Table 5
Typical Annual Primary Care Physician Fees by Payor Source

Source	Low	High	Average	Collection Rate	Average Collected
Medicare					
Total Fees per Visit	\$65	\$160	\$101	68%	\$69
Percent of Total Visits	18%	55%	31%		
Medicaid					
Total Fees per Visit	\$42	\$105	\$86	65%	\$56
Percent of Total Visits	0%	50%	22%		
Private Pay					
Total Fees per Visit	\$65	\$155	\$97	70%	\$68
Percent of Total Visits	20%	50%	33%		
Uninsured					
Total Fees per Visit	\$50	\$140	\$78	72%	\$56
Percent of Total Visits	5%	36%	14%		

Source: 2008 survey of Oklahoma physicians.

groups are shown in **Table 5** as well. The average fees collected per visit range from \$56 for Medicaid and uninsured patients to \$69 for patients with Medicare.

Estimating Total Costs

Total costs are composed of both capital and operating costs. Capital costs include investments in items such as land, buildings and equipment; whereas, operating costs are incurred in the everyday process of providing health care services. Physicians can choose to minimize capital costs by leasing any or all of their land and equipment needs.

Capital Costs

The major components of capital costs in a family practice include building, land and equipment. Several approaches to facility development can be taken including conventional architectural design and competitive bid, design and construction by the same firm, modular construction, renovation of an existing structure and office leasing. Several examples of clinic sizes and floor plans are shown in **Appendix A**.

Relevant data collected from the Oklahoma surveys and building contractors can be used to estimate annual capital costs for a single physician clinic and a two-physician clinic. Physicians surveyed from single physician clinics occupied buildings ranging from 900 to 2,500 square feet (**Table 6a**). Depending on the clinic, this may include examination rooms, business office, reception area, laboratory and conference areas. In group practices, many of these areas may be shared. Many of the clinics surveyed were leased or were part of an agreement with hospitals. Therefore, size might be a factor of availability or indicative of under-utilized facilities such as a clinic built for two physicians with only one physician presently practicing. Clinics that included midlevel practitioners also occupied larger clinics. The average size of a single physician clinic was 1,500 square feet.

Table 6a
Average Capital Costs for a Single Physician Primary Care Physician Clinic

Type	Costs
Construction Costs per sq. ft. (\$150-\$250)	\$200
Square Feet Utilized (900-2,500)	<u>1,500</u>
Total Construction Costs	\$300,000
Equipment Costs	\$15,000
Computer Costs	<u>\$10,000</u>
Total Equipment & Computer Costs	\$25,000
Annual Capital Costs	
Construction Costs (20 year loan @ 7%)	\$27,911
Equipment & Computer Costs (5 year loan @ 8%)	\$6,083

Source: 2008 survey of Oklahoma physicians.

Construction costs per square foot can vary widely depending on location and architectural design. Information obtained from Oklahoma building contractors estimate that construction costs average \$200 per square foot. Estimated construction costs for the structure total \$300,000. Land costs should be determined locally because of regional and local availability. Furthermore, costs for parking spaces can vary dramatically depending on materials such as gravel, concrete or asphalt and therefore were not included.

Estimates for equipment and computer requirements for a single physician clinic are also given in **Table 6a**. In an attempt to solicit the best possible response rate, the physician survey minimized the time investment from the respondents. Therefore, a detailed inventory of all equipment was not obtained. However, experienced contractors and equipment dealers are available to assist physicians with determining the appropriate requirements and alternatives. An

example of equipment needs would be furnishings in each of the rooms, electronic equipment such as telephones, pagers, and copy machines along with medical testing equipment in the exam rooms. Total equipment costs for a single physician clinic averaged \$15,000. Computer hardware costs have decreased considerably over time. However, software investment costs can be significant. Software is continually being developed to enhance electronic medical record systems and to simplify billing systems. Caution should be taken to insure adaptability for technology and software updates to minimize additional annual investment in computers and software. Total computer costs including software for a single physician clinic averaged \$10,000.

Annual Capital and Operating Costs

Annual Capital Costs. Total annual costs included the costs for capital and the day-to-day operational costs for the clinic. Because loans will be utilized to finance the capital costs, the annual loan payments would represent the capital portion of total annual costs. The building and land would typically be financed with a long-term loan, while equipment would require a short- or intermediate-term loan. In addition to the amount borrowed, these costs will be impacted significantly by the interest rate and the term of the loan. Interest rates fluctuate frequently and therefore might need to be secured early in the decision process, particularly in an upward trending cycle. One or two interest points can result in a considerable difference in annual payments on a large construction loan. Interest rates are typically higher for short- and intermediate-term loans. The annual capital costs for a typical single physician clinic are shown in **Table 6a**. For illustration purposes, if the \$300,000 construction costs are financed for 20 years with a seven percent interest rate, the annual payments would be \$27,911. Likewise, if the \$25,000 building and medical equipment costs including computer hardware and software were

financed for five years with an eight percent interest rate, the annual payments would be \$6,083. Similar estimates for capital costs for a two-physician clinic are given in **Table 6b**

Operating Costs. Total operating costs include all costs associated with day-to-day operations of the clinic. These costs are grouped into personnel, property, communication, supplies, insurance and continuing education. Personnel in a medical practice can typically be divided into medical and support personnel. **Table 7** presents the average and range of salaries for medical and support personnel as determined by the Oklahoma survey and data from the Bureau of Labor Statistics [8]. For example, in 2007 the average salary for a physician assistant was \$80,000 and ranged from a low of \$70,000 to a high of \$99,000. Notably, differences in salaries may be due to variance in years of experience and size of practice. The number and type of personnel employed are determined by the physician, but even a small-scale practice requires at a minimum a medical assistant and a receptionist. By using the typical number and type of personnel along with average salaries, annual staffing costs have been determined.

The other typical operating expenses for a single primary care physician clinic are demonstrated in **Table 8**. The first of these costs are property costs which are all the costs associated with the building and maintaining the property. Examples of property costs are utilities, building and property maintenance, janitor/laundry services, insurance and taxes. Additional expenses are shown for communication, supplies and malpractice insurance. Physicians must attend conferences and other networking events in order to keep their medical knowledge current. The average costs for continuing education totaled \$3,000.

The Oklahoma survey results for operating costs (not including labor and rent) averaged \$58,400 and ranged from \$27,000 to over \$102,250. The wide range was due to the significant differences regarding square feet of clinic space and number of additional mid-level

Table 6b
Average Capital Costs for a Two-Physician Primary Care Physician Clinic

Type	Costs
Construction Costs per sq. ft. (\$150-\$250)	\$200
Square Feet Utilized (1,600-5,000)	<u>3,000</u>
Total Construction Costs	\$600,000
Equipment Costs	\$20,000
Computer Costs	<u>\$20,000</u>
Total Equipment & Computer Costs	\$40,000
Annual Capital Costs	
Construction Costs (20 year loan @ 7%)	\$55,821
Equipment & Computer Costs (5 year @ 8%)	\$9,733

Source: 2008 survey of Oklahoma physicians.

practitioners. Also, some of the physician clinics were providing more ancillary services such as laboratory work and radiology. The total square feet of clinic space per medical professional ranged from 500 to 3000 square feet.

Building costs will depend on the decision to own or rent. As discussed earlier, if the building is owned by the physician, the annual payment for capital is included as operating costs. The survey participants were evenly split between owners and renters. As would be expected, there was a wide range of annual rental expense due to the various rental agreements that can be made with hospitals, nursing homes and community-owned facilities. Many of the rental agreements included some or all of the utilities and property maintenance expenses.

Insurance costs, especially costs associated with malpractice protection, can represent a significant portion of annual operating costs. Costs associated with various policies were

Table 7
Average Annual Salaries by Primary Care Physician Office Staff¹

Type	Low	High	Average
Physician Assistant	\$70,000	\$99,000	\$80,000
Nurse Practitioner	\$75,000	\$75,000	\$75,000
Registered Nurse ²	---	---	\$50,000
Licensed Practical Nurse	\$14,400	\$40,000	\$31,500
Medical Assistant	\$14,875	\$37,500	\$24,700
Laboratory Technician ²	---	---	\$31,400
Billing Clerk	\$14,560	\$20,000	\$17,000
Office Manager	\$17,000	\$40,000	\$38,500
Receptionist	\$14,400	\$25,000	\$24,000

¹Low and high salaries were obtained from the survey data when available. Averages were state averages obtained from the Bureau of Labor Statistics and might be slightly lower in rural areas.

²Data was not available.

Source: 2008 survey of Oklahoma physicians, U.S. Bureau of Labor Statistics.

solicited from insurance providers and are presented in **Table 9**. In addition to property insurance, the three types of policies typically purchased by medical providers were malpractice, liability and disability. In addition to protection from civil sanctions against the physician and practice, maintaining malpractice insurance or proof of sufficient assets is required by many states before a physician can operate a practice.

As shown in **Table 9**, malpractice insurance can cost from \$10,000 to \$15,000 per physician per year. Liability policies protect business assets in the event of a lawsuit and provide protection in the case of personal injury occurring on your property. Costs for liability policies will vary depending on if workers' compensation is included. If employees become sick or have job-related injuries, workers' compensation covers medical expenses and lost wages. Disability insurance provides compensation to the physician in case they are unable to work for an

Table 8
Average Operating Costs Except Labor to Operate a Single
Primary Care Physician Clinic¹

Type	Low	High	Average
Property Costs			
Utilities ²	\$2,800	\$5,800	\$4,500
Maintenance ³	\$1,000	\$7,000	\$3,800
Janitor and Laundry	\$3,000	\$6,000	\$5,100
Insurance ⁴	\$1,200	\$4,000	\$2,800
Property Tax (owned)	\$1,500	\$3,000	<u>\$2,500</u>
Total Property Costs			\$18,700
Communication ⁵	\$1,000	\$7,200	\$3,700
Supplies ⁶	\$12,000	\$39,000	\$21,500
Malpractice Insurance	\$8,000	\$13,000	\$11,500
Continuing Education	\$1000	\$6,000	<u>\$3,000</u>
TOTAL Operating Costs			\$58,400
Sq. Ft of building\Med. Prof.	500	3,000	
Annual Lease	\$6,000	\$23,500	

¹ Costs were allocated equally between physicians sharing clinic space.

² Utility costs include electricity, gas, water, sewer and trash.

³ Maintenance costs for building, equipment and grounds.

⁴ Includes insurance costs for property.

⁵ Communication costs include all phones, internet, cable television, etc.

⁶ Supplies include medical and office supplies.

Source: 2008 survey of Oklahoma physicians.

Table 9
Example of Insurance Policies and Costs per Primary Care Physician

Insurance Type	Annual Costs
Malpractice Protection	\$10,000 - \$15,000
Blanket Liability Policy	
without workers' compensation	\$1,200 - \$1,800
with workers compensation	\$2,000 - \$2,500
Disability Policy	\$5,000 +,

Source: 2008 survey of private insurance providers.

extended period of time. Premiums are directly related to the amount of protection that the physician chooses to purchase.

Outsourced billing is another possible operating cost. This arrangement can be expensive and may not be desired by a new physician starting a practice. However, once established, outsourced billing services relieve the physician of significant paperwork and allow more time to be spent with the patients. Outsourced billing services vary from simply submitting claims to total management of patient information and collections. The cost will vary according to the services provided. **Table 10** presents an example of possible costs associated with outsourced billing based on number of patient accounts and total charges per account. For example, if the 3,500 visits were generated by 1,750 patients (two annual visits per year), the total annual costs for outsourced billing would be \$8,750 with a \$5 service charge per account. The decision to outsource the billing services can be made at any time. However, careful consideration should be given to the selection of the service to insure that the needs of the physician practice are met.

Example Budget for Single Physician Practice

The previous estimates were used to construct a budget example for a single physician practice and verified by national data sources [9,10,11]. The results are displayed in **Table 11**.

Table 10
Example of Total Costs for Outsource Billing and Collection Services¹

Annual Visits	\$5 per account	\$10 per account	\$15 per account
3,500	\$8,750	\$17,500	\$26,250
4,000	\$10,000	\$20,000	\$30,000
4,500	\$11,500	\$22,500	\$33,750
5,000	\$12,500	\$25,000	\$37,500
5,500	\$13,750	\$27,500	\$41,250
6,000	\$15,000	\$30,000	\$45,000

¹Assuming 2 annual visits per patient

Source: 2008 survey of private billing and collection services.

The three primary types of visit (initial office, routine office and hospital/nursing home) all had different average collection rates per visit. Therefore, total practice revenues were estimated by applying the average annual visits of each type by its subsequent rate. For example, with 766 annual initial office visits and an average collected rate of \$81 per visit, the total revenue collected from these visits would be \$62,046. Revenues generated from a typical single physician practice were estimated at \$362,576.

The annual costs include annual building costs of \$27,911 (assuming constructing a new clinic of 1,500 square feet) and annual equipment costs of \$6,083. The largest single operating cost is labor, totaling \$94,000 with benefits costing \$23,500. This includes the employment of an LPN, an office manager and a receptionist. Additional operating costs were \$58,400 (**Table 8**) bringing total annual costs to \$209,894. With this scenario, a physician would net \$152,682 per year after covering costs. This compares to the average compensation found in the latest Modern Healthcare Compensation Survey. The 2008 published compensation for family practice physicians ranged from \$150,763 to \$204,370 [**11**]. As discussed earlier, the model of

Table 11
Example Budget for Single Physician Practice

Revenue		
Office		
Initial Office Visits	766	
Average Initial Fees Collected/Visit	<u>\$81</u>	
Total Initial Office Fees Collected		\$62,046
Routine Office Visits	4,338	
Average Routine Office Fees Collected/Visit	<u>\$61</u>	
Total Routine Office Fees Collected		\$264,618
Additional		
Total Hospital and Nursing Home Visits	536	
Average Fee/Visit	<u>\$67</u>	
Total Hospital and Nursing Home Fees Collected		<u>\$35,912</u>
TOTAL Revenue		<u>\$362,576</u>
Annual Costs		
Building Costs (if purchased)		27,911
Equipment		\$6,083
Labor		
LPN	\$31,500	
Office Manager	\$38,500	
Receptionist	<u>\$24,000</u>	
Total Wages	\$94,000	
Benefits (25%)		
Total Labor Costs		\$117,500
Operating		<u>\$58,400</u>
TOTAL Annual Costs		<u>\$209,894</u>
Income (Total Revenues less Total Costs)		\$152,682¹

¹A 10 % increase in revenues could increase income to \$188,940.

each clinic varied significantly with building size, patient load and payor source. If revenue increased only 10 percent by increasing patient load slightly or increasing the collection rate with an improved collection system, net practice revenues or income to the physician would increase to \$188,940.

Summary

For primary care physicians considering a practice in rural areas, the results of this study clearly indicate that rural clinics can be feasible if healthcare needs in the medical service area are not being met. First, a new physician must determine the needs of the medical service area and recognize whether or not a shortage exists for primary care physicians. The templates presented will allow a new primary care physician to estimate the visits and evaluate the potential for a new clinic based on the current number of practicing physicians. For example, if the population in a medical service area generates 16,000 primary care visits (**Table 2**) and the two current primary care physicians are servicing 10,200 visits (**Table 3**) then there should be enough potential visits (5,800 visits) to support a new clinic.

Typically, a new physician has significant financial obligations. The common concern is whether a rural medical service area can support a physician well enough to meet the financial obligations accrued from completing educational requirements and from the initial investment for the practice. Equally important is total compensation must provide a satisfactory quality of life. Rural primary care physicians tend to work more hours and attend to more patients than their urban associates but there are many reasons that primary care physicians choose to practice in the rural areas. Many new graduates come from rural backgrounds and prefer the less congested, more cohesive environments usually associated with rural communities. These graduates would rather locate practices closer to family members and raise their children in the type of communities in which they are accustomed. In addition, rural residents can experience

reduced living costs and rural communities are often considered safer with decreased crime rates. The sample budget illustrated that a rural primary care physician can generate approximately \$153,000 annual income based on survey results. A slight increase in revenues of 10 percent from increased collections or fees would increase physician income to approximately \$189,000.

This information has been developed with the intent of assisting prospective primary care physicians and local community leaders in determining if a community can support a physician practice. These are only estimates and ultimately, decisions regarding health care services must be made at the local level. Local information should always be used when available to develop more accurate information. However, these estimates indicate that demand for services and potential incomes can be sufficient to support a primary care physician clinic.

If community leaders desire further assistance from outside resources, many are available at no cost. When combined with a community's support for improved health care, these resources can help develop and implement a plan of action for recruiting a physician. Assistance may be available from state and local organizations such as state and county medical associations, state medical colleges, state and local cooperative extension services, physician manpower training offices and state and local area health education centers.

References

- [1] Henry, J., Bare, J., et al., "On Your Own: Starting a Medical Practice from the Ground Up," Second Ed., American Academy of Family Physicians, 2005.
- [2] U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center of Health Statistics, "National Ambulatory Medical Care Survey, 2004 Summary," No. 374, June 23, 2006.
- [3] Doeksen, G.A., Miller, K.A., Shelton, P.J., and Miller, D.A., "Family Medicine – A Systematic Approach to the Planning and Development of a Community Practice," University of Oklahoma Health Sciences Center, 1990.
- [4] Miller, K.A., Doeksen, G.A., Miller, D., Campbell, J., and Shelton, P.J., "Internal Medicine - A Systematic Approach to the Planning and Development of a Community Practice - A Step-by-Step Guide," University of Oklahoma Health Sciences Center, 1993.
- [5] Reschovsky, J.D., and Stati, A., "Physician Incomes in Rural and Urban America," *Issue Brief Center for Studying Health System Change*, 2005, 92:1-4.
- [6] Weeks, W.B. and Wallace, A.E., "Rural-Urban Differences in Primary Care Physicians' Practice Patterns, Characteristics, and Incomes," *The Journal of Rural Health*, National Rural Health Association, Spring 2008, Vol. 24 Issue 2:161-170.
- [7] U.S. Census Bureau, www.census.gov.
- [8] U.S. Department of Labor, Bureau of Labor Statistics, 2007 Wage and Salary Estimates by Area and Occupation, www.bls.gov/bls/blswage.
- [9] National Health Policy Forum, "Primary Care Physician Supply, Physician Compensation, and Medicare Fees: What is the Connection?," Issue Brief No. 827, November 3, 2008.
- [10] Gans, D. N., Medical Group Management Association (MGMA), presentation at the National Health Policy Forum session on "Physician Income and Medical Practice Differences Across Specialties: Should Medicare Care?" May 2, 2008.
- [11] "Modern Healthcare's 2008 Physician Compensation Survey by the Numbers," originally published in Modern Healthcare, July 14, www.modernhealthcare.com.

Appendix A
SAMPLE CLINIC SIZES AND FLOOR PLANS

Appendix Table 1
Example Square Foot Requirements for a Single Physician Primary Care Physician Clinic¹

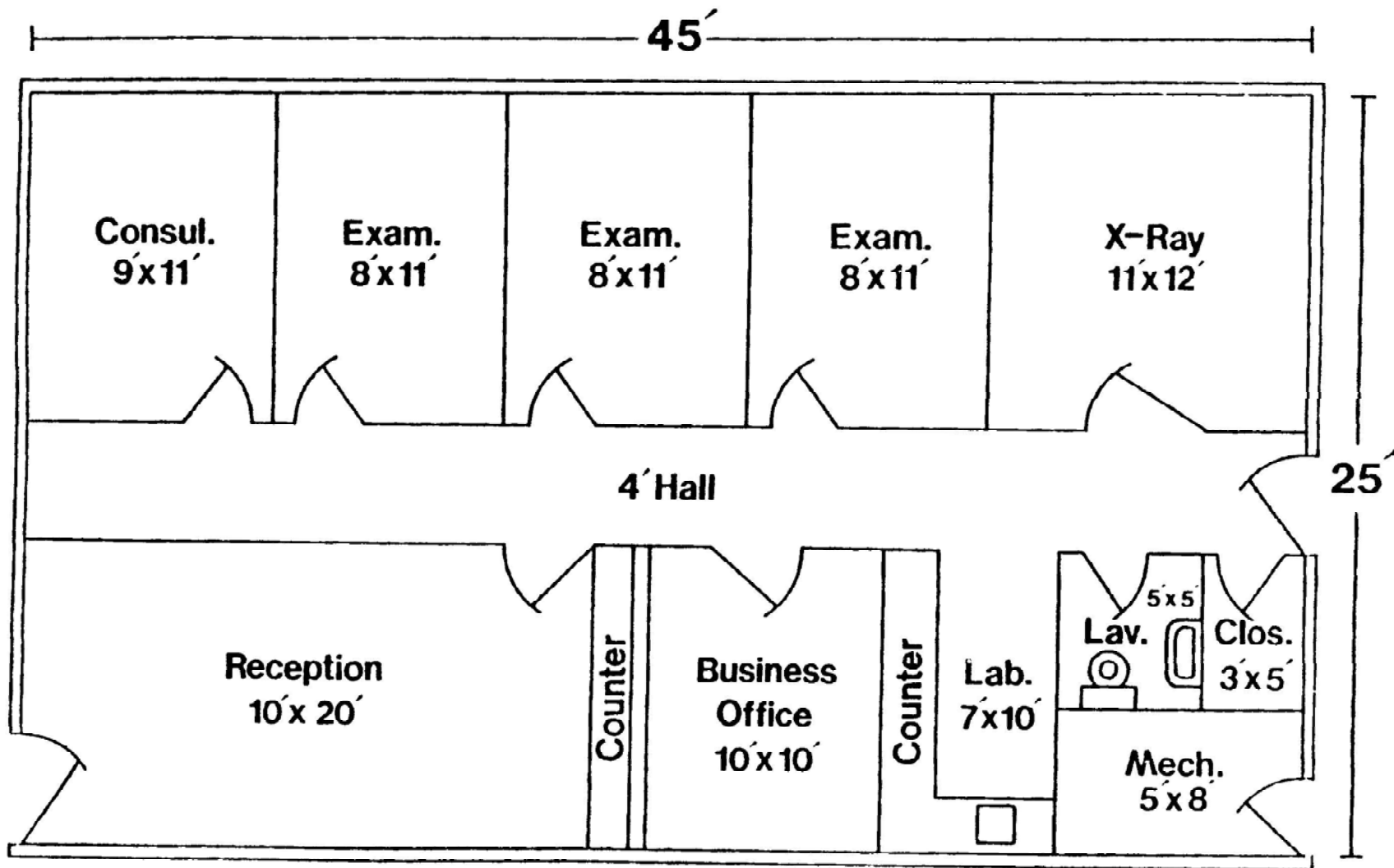
Utilization	Units	# of Units	Sq.Ft/Unit	Total Sq.Ft
Entry & Commons				
Vestibule	rooms	1	64	64
Toilets	each	1	64	64
Waiting	seats	10	17	170
Misc.	area	1	20	20
Circulation	10%			<u>32</u>
Total Entry				350
Business, Reception				
Reception	area	1	48	48
Copy/Work	area	1	48	48
Charts	rooms	1	120	120
I.T.	rooms	1	25	25
Supply/Storage	rooms	1	64	64
Circulation	35%			<u>107</u>
Total Business				412
Patient Area				
Exams	area	3	100	300
Scales/Vitals	area	1	20	20
Procedure	area	1	120	120
Nurse Station	area	2	70	140
Storage	area	1	50	50
Medical Storage	rooms	1	64	64
Staff/Patient Toilet	area	1	64	64
Circulation	35%			<u>265</u>
Total Patient				1,023
Offices				
Doctor Office	room	1	140	140
Circulation	35%			<u>49</u>
Total Office				189
Building Support				
Electrical Room	rooms	1	70	70
Janitor Closet	rooms	1	48	48
Mechanical Room	rooms	1	60	60
Circulation	10%			<u>18</u>
Total Building Support				196
Building Sub-Total				<u>2,170</u>
Major Circulation	5%			108
Exterior Structure	5%			108
Total Area				<u>2,386</u>

¹ Provided by Cooper Medical Building contractors.

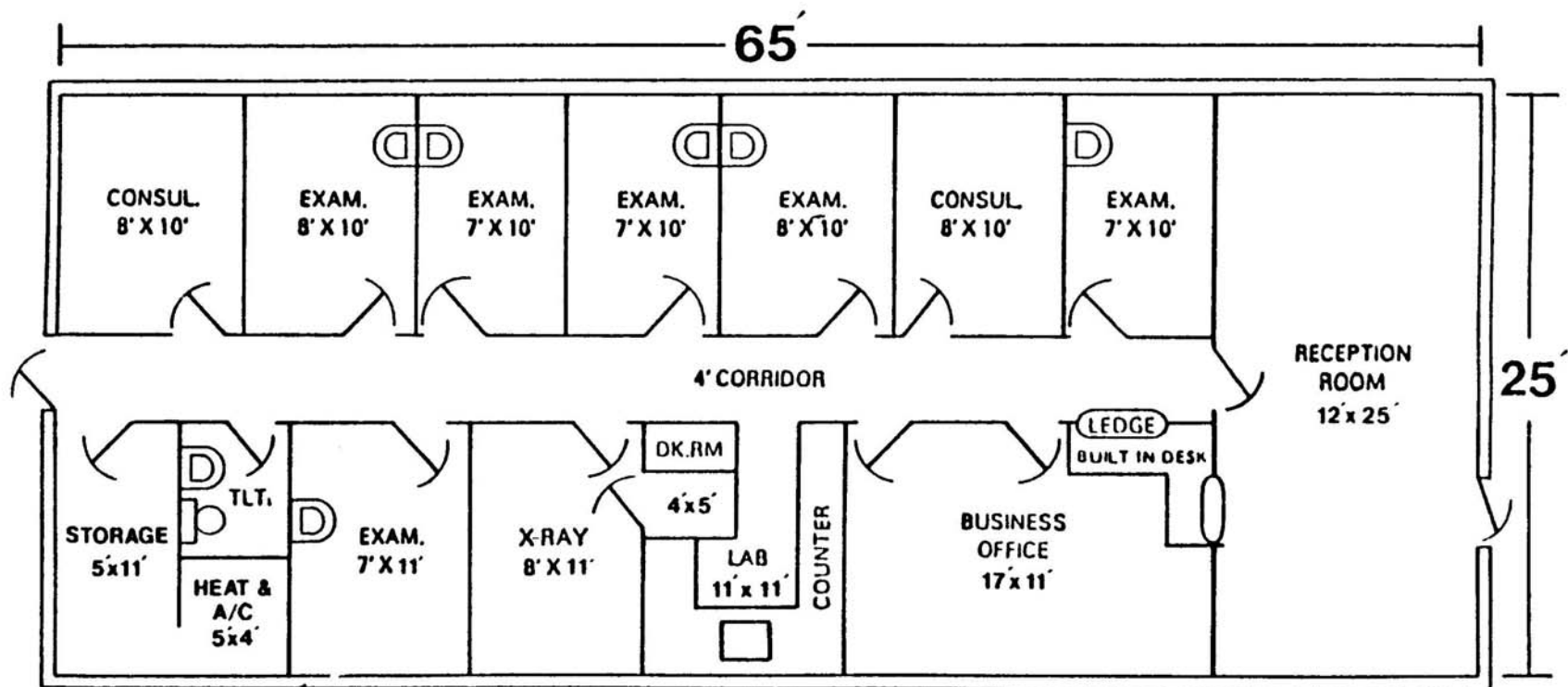
Appendix Table 2
Example Square Foot Requirements for a 2-Physician Primary Care Physician Clinic¹

Utilization	Units	# of Units	Sq.Ft/Unit	Total Sq.Ft
Entry & Commons				
Vestibule	rooms	1	64	64
Toilets	each	1	64	64
Waiting	seats	20	17	340
Misc.	area	1	20	20
Circulation	10%			<u>49</u>
Total Entry				537
Business, Reception				
Reception	area	2	48	96
Copy/Work	area	1	48	48
Charts	rooms	1	120	120
I.T.	rooms	1	25	25
Supply/Storage	rooms	1	64	64
Circulation	35%			<u>124</u>
Total Business				477
Patient Area				
Exams	area	6	100	600
Scales/Vitals	area	2	20	40
Procedure	area	1	120	120
Nurse Station	area	4	70	280
Storage	area	1	50	50
Medical Storage	rooms	1	64	64
Staff/Patient Toilet	area	1	64	64
Circulation	35%			<u>426</u>
Total Patient				1,644
Offices				
Doctor Office	room	2	140	280
Circulation	35%			<u>98</u>
Total Office				378
Building Support				
Electrical Room	rooms	1	80	80
Janitor Closet	rooms	1	48	48
Mechanical Room	rooms	1	70	70
Circulation	10%			<u>20</u>
Total Building Support				218
Building Sub-Total				<u>3,254</u>
Major Circulation	5%			163
Exterior Structure	5%			163
Total Area				<u>3,580</u>

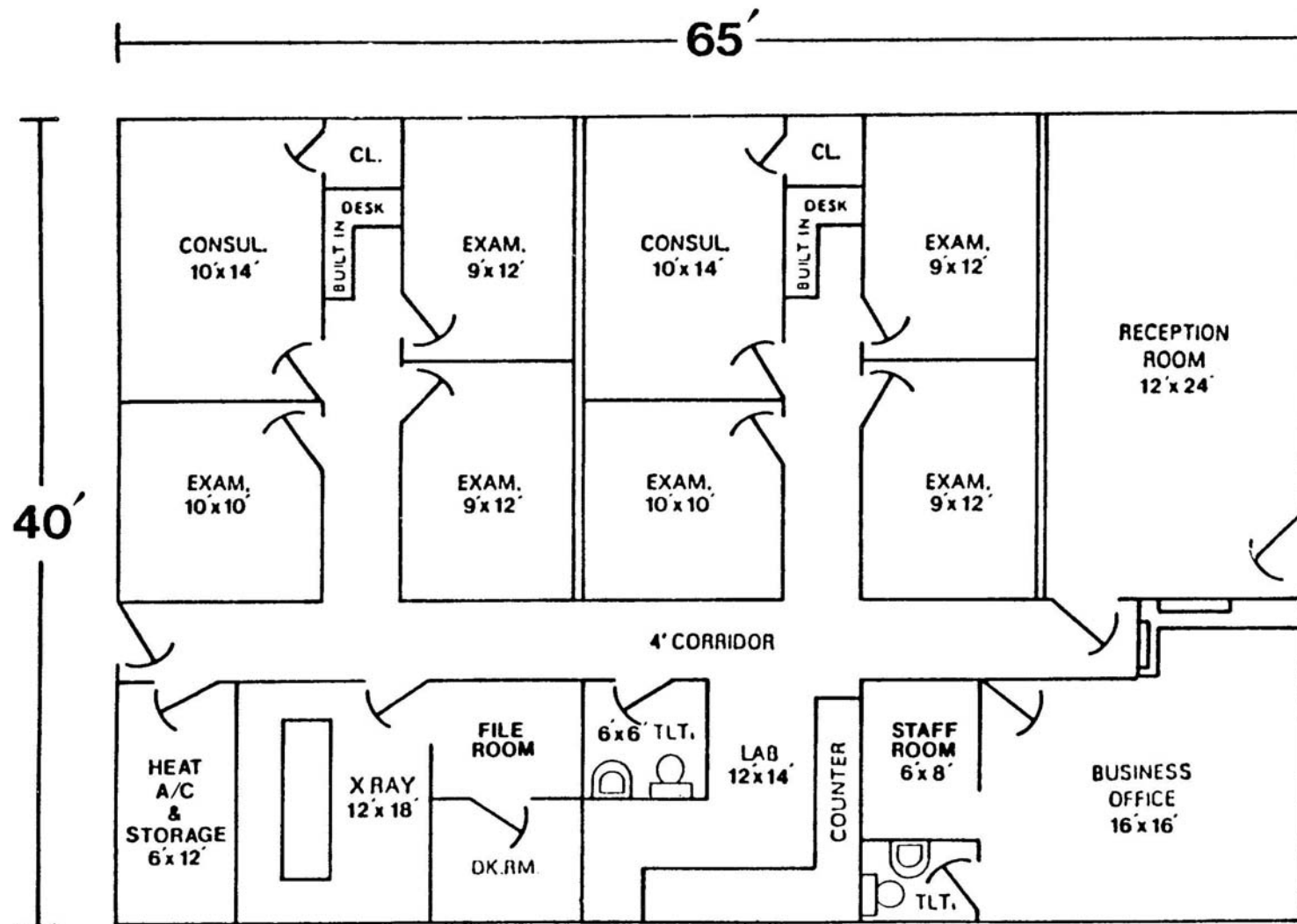
¹ Provided by Cooper Medical Buildings contractors.



One Physician—Basic Design
1125 Square Feet
Expandable



Two Physicians—Single Corridor
1625 Square Feet



Two Physicians
 2400 Square Feet
 Design Features: Each physician has "clustered" exam rooms, nurse's desk, easily expandable