

A Comparison of Rural Family Practice in the 1930s and Today

Richard I. Haddy, MD; Janice M. Hill; Bruce R. Costarella, MD; Richard E. Gordon, MD; Gideon S. A. Adegbile, MD; Cynthia M. Van Niman, MD; and Ronald J. Markert, PhD

Dayton, Ohio

Two hundred forty-four consecutive diagnoses and procedures appearing on the patient billing records between June 1934 and September 1935 of a general physician practicing in rural southwestern Minnesota were compared with 286 diagnoses and procedures taken from the billing records of patient visits made over a 2-week period to a modern family physician practicing in a comparable rural community in southwestern Ohio. The most common items on the billing records of the physician of the 1930s were follow-up incision and drainage of abscess, 26 (10.7%); diphtheria immunization, 24 (9.8%); follow-up drainage for mastoiditis, 17 (7.0%); and scrotal tap for epididymitis, 14 (5.7%). Many of these patient encounters were at the patient's home. The most common items on the records of the modern physician practicing in rural southwestern Ohio were upper respiratory tract infec-

tion, 13 (4.5%); hypertension, 12 (4.2%); hyperlipidemia, 11 (3.9%); and history-taking and physical examination (adult), 10 (3.5%).

This study suggests that there are great differences between the diagnostic profiles of the first third of the 20th century and modern family physicians. Many of the common diagnoses seen by the physician of the 1930s required a procedure to be performed. Many of the problems treated by the contemporary family physician did not even exist for the early 20th century general physician. Some of the differences between the modern physician and his predecessor can be explained by the introduction of antibiotics in the late 1930s and early 1940s.

Key words. History of medicine; physician's practice patterns; family practice; fees, medical. *J Fam Pract* 1993; 36:65-69.

Modern family physicians often speculate on how earlier physicians managed medical problems such as pneumonia and congestive heart failure without the benefit of roentgenograms, laboratory tests, and modern pharmaceutical agents. Many are also curious about what their predecessors' daily practice routines were like. Although a search of the literature revealed many descriptive narratives of past family physicians' lives,^{1,2} we found no reviews of old medical records that would have provided insight into what happened in the average day of a physician's practice earlier in the century. Fortunately, we were able to obtain the office billing records of a general practice physician who practiced in the rural town of Wabasso, Minnesota, from 1910 to 1940. Our aim was to determine, by reviewing these records and comparing

them with the records of a modern rural family physician, what differences may exist between the practice profiles of general physicians pre-World War II and modern family physicians.

Gathering Data

Records with clearly written diagnoses from the rural southwestern Minnesota practice of Frank W. Brey, MD, recorded from June 6, 1934, through September 25, 1935, were obtained from the deceased physician's family. These diagnoses were written chronologically on the billing records of the period (Figure 1 and 2). Two hundred forty-four consecutive diagnoses were available. There were clearly written records of charges made and information on whether the encounter was a so-called house call or country call, that is, a call to the patient's home within or outside the town limits.

Dr Brey (Figure 3) was born in Lafayette, Minnesota, in 1886, earned his MD degree from the University

Submitted, revised, September 28, 1992.

From the Departments of Family Practice (R.H., J.H., B.C., R.G., G.A., C.V.) and Internal Medicine (R.M.), Wright State University School of Medicine, Dayton, Ohio. Requests for reprints should be addressed to Richard I. Haddy, MD, St Elizabeth Medical Center, 601 Edwin C. Moses Blvd, Dayton, OH 45408.

STATEMENT		19
M. Wanda		
To		Dr.
3-26-35	Wanda miles	8 =
	Hemorrhagic call, measles 103	
	Anti pneumonia serum 5.95	
	Lilly's	
	net \$5.30	
3-27-35	Wanda miles	8 =
	call	3 =
3-28-35	miles	8 =
	call	3 =
3-29-35	Wanda miles	8 =
	call	3 =
3-30-35	Wanda call	8 =
	call	3 =
	Fess 40%	5.5 =
	bal.	2.3 =
	serum	3.30 =
	Total	38.30

Figure 1. Billing record for country calls (the town of Wanda, Minnesota) to attend two cases of "hemorrhagic measles" in 1935. Note use of "Lilly's antipneumonia serum." The reason for the 40% discount on the charges is unknown.

STATEMENT		19
M. F. W. Brey		
To		Dr.
July 24-1935	confinement	30 =
	Fess 40%	12 =
	bal	18 =
	F. W. Brey	

Figure 2. Billing record for a 1935 home obstetrical delivery ("confinement").

of Minnesota in 1910, and died in 1940. As the only physician in Wabasso (Figure 4) and the surrounding area during that period, Dr Brey performed a wide range of services including routine office calls, minor surgery, setting fractured bones, and obstetrics. The economy of Wabasso (population 482 in 1930 and 625 in 1990) was, and still is, primarily based on farming. Wabasso had no hospital during the period studied and still does not.

Dr Brey's diagnostic profile was compared with that of a modern rural family physician practicing in Yellow Springs, Ohio (1990 population 3973), in a group practice associated with the Department of Family Practice of Wright State University School of Medicine. Medical students were taught in this office, although there were no residents. As the Yellow Springs practice is a rural practice and many farmers were seen, this practice could

be considered a modern counterpart of Dr Brey's early 20th century practice.

Two hundred eighty-six diagnoses were taken from the Yellow Springs practice. To determine the diagnostic profile of this practice, the authors first examined the billing records and then retrieved the corresponding charts to obtain the diagnoses. This method was used to maintain consistency in the way both practice profiles were obtained. All diagnoses were taken exactly as they were written by the physicians regardless of their accuracy, with the realization that the written diagnosis may not have been the reason for the physician visit. If more than one diagnosis was listed for an office visit, only the first diagnosis was used.

For the purposes of this review, an infant was defined as a patient 0 to 12 months of age; a child, 1 to 18 years of age; and an adult, over 18 years of age.



Figure 3. Frank W. Brey, MD, outside his office ca. 1932.

Results

The four most common diagnoses (Table 1) in Dr Brey's 1934 to 1935 data were follow-up incision and drainage of abscess; diphtheria immunization; follow-up drainage of mastoiditis; and scrotal tap for epididymitis. The four most common diagnoses (Table 2) for the 1989 data were upper respiratory tract infection; hypertension; hyperlipidemia; and history-taking and physical examination. Table 3 shows that Dr Brey saw a higher percentage of infants, children, and men than the physician in Yellow Springs ($P < .001$ with chi-square test). No house or office calls were made in the Yellow Springs practice. The charges for routine office calls were approximately 10 times higher in the modern practice than in the earlier practice.

In questioning Dr Brey's surviving relatives, many other interesting facts came to light regarding his practice. For example, most country calls were made driving either a Ford Model T or Model A. When roads were made impassable by heavy Minnesota snowfalls, home visits, particularly for obstetrical cases, were made on horseback or on foot, following railroad tracks for direction. Two cesarean births were listed among the procedures from Dr Brey's data. In talking with Dr Brey's



Figure 4. Wabasso, Minnesota, ca. 1936.

surviving family, it was discovered that each of these deliveries was done in the patient's home. Tonsillectomies were done in the physician's office using ether as the anesthetic. We learned that Dr Brey also performed appendectomies, which were done at the hospital in nearby Marshall, Minnesota.

Profile of an Early 20th Century Practice

The results of this review suggest that the practice profile and daily routine of the early 20th century rural physician were greatly different from that of the modern rural family physician. None of the four most common diagnoses in Dr Brey's data is seen among the common diagnoses of the modern physician.

Dr Brey's data can be further contrasted with the four most common diagnoses in two larger modern studies. One study of 526,196 health care problems presented by 88,000 patients to 118 family physicians, the so-called Virginia study,^{3,4} lists routine physical examinations, benign or unspecified hypertension, minor trauma, and acute pharyngitis as the four most common categories of care of family physicians. A British study reports prenatal care, acute bronchitis, acute pharyngitis, and depressive neurosis as the top four categories.^{5,6}

It appears that much of Dr Brey's practice was devoted to surgical procedures and their follow-up. Procedures such as incision and drainage of mastoiditis, myringotomy for otitis media, tonsillectomy and adenoidectomy, and setting of fractures of major bones are comparatively absent from the modern physician's practice. The introduction of antibiotics in the late 1930s and early 1940s probably reduced the need for drainage of mastoiditis, myringotomy for otitis media, and perhaps

Table 1. Most Common Diagnoses in a Rural Minnesota Practice Between June 1934 and September 1935 (N = 244)

Diagnosis or Procedure	No. (%)
Abscess, incision and drainage, follow-up	26 (10.7)
Immunization, diphtheria	24 (9.8)
Mastoiditis, drainage, follow-up	17 (7.0)
Epididymitis, scrotal tap	14 (5.7)
Otitis media, myringotomy, follow-up	14 (5.7)
Tonsillectomy and adenoidectomy	14 (5.7)
Arthritis, follow-up	11 (4.5)
Abscess, incision and drainage	8 (3.3)
Fracture, major bone, follow-up	7 (2.9)
Pneumonia, follow-up	6 (2.5)
Pertussis, follow-up	5 (2.1)
Uterine prolapse, pessary placement, follow-up	5 (2.1)
Abortion, threatened, follow-up	4 (1.6)
Office counseling, unspecified	4 (1.6)
Measles, hemorrhagic, with pneumonia, follow-up	4 (1.6)
History and physical examination, infant	4 (1.6)
Renal colic, follow-up	4 (1.6)

tonsillectomy and adenoidectomy. In most modern family medicine practices, patients presenting with fractures of major bones are referred to orthopedists. Other interesting diagnoses seen by Dr Brey but not in the modern physician's records were pertussis (listed as "whooping cough"), diphtheria, and uterine prolapse treated with pessary placement. Today, routine immunizations have eliminated the first two diagnoses from most physicians' practices, and surgery has largely ended the need for pessary placement for uterine prolapse. It can be seen from Dr Brey's data that immunizations ("vaccination") for diphtheria had just been introduced into routine medical practice, and it appears that Dr Brey spent considerable time administering these immunizations.

Diagnoses that were conspicuously absent from Dr Brey's data were hypertension, hyperlipidemia, and depressive and anxiety disorders. Although these were not recognized medical diagnoses when Dr Brey practiced, they are now among the most common diagnoses seen by family physicians.^{3,5} (It is possible that blood pressures were noted in Dr Brey's day, but not recognized as dangerous when high.) Undoubtedly no 2 days were alike for Dr Brey. It is not unreasonable to assume that an ordinary day included office calls, home visits, minor (and sometimes major) surgery, and occasionally obstetrics.

This review not only provides evidence that there

Table 2. Most Common Diagnoses in a Rural Ohio Practice Between April 1989 and June 1989 (N = 286)

Diagnosis	No. (%)
Upper respiratory tract infection	13 (4.5)
Hypertension	12 (4.2)
Hyperlipidemia	11 (3.9)
History and physical examination, adult	10 (3.5)
Nevus removal, follow-up	9 (3.2)
Rhinitis, allergic	9 (3.2)
Bronchitis, acute	6 (2.1)
Depression	6 (2.1)
Medication review	6 (2.1)
Hypertension, follow-up	5 (1.8)
Depression, follow-up	4 (1.4)
Otitis media, follow-up	4 (1.4)
Pharyngitis	4 (1.4)
Pharyngitis, streptococcal	4 (1.4)
Postoperative visit	4 (1.4)

have been changes in the day-to-day practice of family medicine, but also in the way patients perceive and define illness. In the early 20th century, people did not go to a physician for benign illnesses (eg, upper respiratory tract infection, muscle contraction headache, allergic rhinitis) or for health maintenance (history-taking and physical

Table 3. Comparison of Patient Age, Sex, Site of Encounter, and Office Charges for the Two Practices

Characteristic	Dr Brey's Practice, 1934-1935 (N = 244) No. (%)	Yellow Springs Practice, 1989 (N = 286) No. (%)
Age*		
Infant	16 (6.6)	4 (1.4)
Child	97 (39.8)	46 (16.1)
Adult	131 (53.7)	236 (82.5)
Sex†		
Male	140 (57.4)	129 (45.1)
Female	89 (36.5)	157 (54.9)
Sex unknown, infants	15 (6.1)‡	—
Site of patient encounter		
Office	148 (60.7)	286 (100)
House call	62 (25.4)	—
Country call	34 (15.9)	—
Charge for routine office visit (\$)	2.00	20.00

*More infants and children but fewer adults were seen in Dr Brey's practice than in the Yellow Springs practice (P < .001).

†More men but fewer women were seen in Dr Brey's practice than in the Yellow Springs practice (P < .001).

‡Of the 16 infants, 1 was female and the sex of the other 15 are unknown.

examination), which are common reasons for seeing a physician today.

Approximately 25% of Dr Brey's patient encounters were house calls and 15.9% were country calls, probably because he was the only physician for an extremely large rural area. The distance Dr Brey went on his country calls varied between 1 and 10 miles. He charged \$2.00 for a routine office visit, \$3.00 for a house call (within the town of Wabasso) and \$3.00 plus a dollar for each mile traveled for a country call, ie, out of town. In contrast, no house calls were made by the modern physician. Also of interest, Dr Brey's charge for tonsillectomy and adenoidectomy was \$25.00, and his charge for immobilization of a major fracture was \$35.00.

Discussion

One criticism of this review might be the small sample size used to obtain the data. Unfortunately, the billing records containing the 244 consecutive diagnoses or procedures were the only records found that were preserved adequately. A more accurate comparison of old and new practice profiles would have included records from several early 20th century physicians and several modern physicians. However, the authors did not have access to office data from other early 20th century family physicians. In contrast to modern practitioners, many of these physicians did not keep accurate records of their daily activities.

The smaller number of visits for history-taking and physical examinations in the earlier practice indicates the greater emphasis today on prevention. Neither practice saw a large number of children, although Dr Brey saw a higher percentage of them. This may be because many children today see pediatricians rather than family practice physicians. It is also interesting that Dr Brey saw more men than women. This may be because most of the local men were farmers and were therefore more likely to get injured and develop infections than women.

Dr Brey's 244 billing items span almost 16 months, whereas the other physician's 286 encounters span only 2 weeks. The exact reason for this sizable difference is unknown. The source of data from Dr Brey's practice is his billing records only, and he may have used other methods of obtaining payment than patient billing. Since his data took place within the years of the Great Depression, it is possible that some of his patients paid with nonmonetary items. Dr Brey's collection rate is not

known, although it cannot have been very good, as it was brought out in interviewing members of his surviving family that he died with over \$100,000 still on the books. They said that his collection rate was as low as 10% to 20% during the height of the Depression.

Another problem with the review of Dr Brey's practice lies in his fourth most common diagnosis: epididymitis, treated by scotal tap. This procedure was repeated multiple times on one patient, who may have had gonorrhoea. We were informed that Dr Brey kept a record on all patients with venereal diseases in a separate book that was destroyed by his widow upon his death.

Conclusions

This review suggests that practice profiles of early 20th century general physicians were much different from practice profiles of modern family physicians. The main difference appears to be a greater emphasis on procedures by the earlier physician. With the recent advent of family medicine as a specialty, it is surprising how little data exist on the history of its practitioners. The authors believe that it is important to know something of the heritage of the specialty of family practice. From this, one can understand how family practice developed and better understand the future directions of the specialty.⁷

Acknowledgment

We wish to thank Ann C. Brey, who preserved Dr Brey's patient records and allowed us access to them.

References

1. Rosenthal R. Dr. Christopher Carli, pioneer physician of Minnesota. *Minn Med* 1982; 65:765-8.
2. Waters SC. A country doctor of yesteryear: Samuel C. Waters (1861-1932) of Middletown, Indiana. *J Ind State Med Assoc* 1983; 76:144-5.
3. Marsland DW, Wood M, Mayo F. A data bank for patient care, curriculum, and research in family practice: 526,196 patient problems. *J Fam Pract* 1976; 3:26-8, 37-89.
4. Stewart WL. Clinical implications of the Virginia study. *J Fam Pract* 1976; 3:29-32.
5. Morbidity statistics from general practice—second national study 1970-71. London, England: Her Majesty's Stationery Office, 1974. Studies on medical and population subjects, No. 26.
6. Hodgkin K. Educational implications of the Virginia study. *J Fam Pract* 1976; 3:33-44.
7. Canfield PR. Family medicine: an historical perspective. *J Med Educ* 1976; 51:904-11.