

A = Number of patient visits (left legend).
 B = Number of patients (left legend).
 C = Number of residents (right legend).

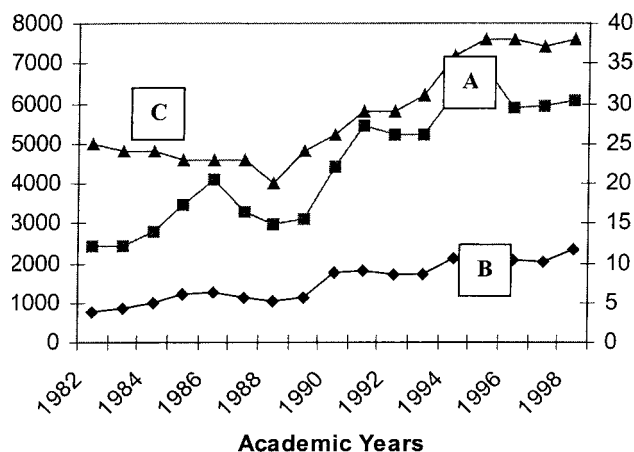


Fig 1. Number of patients, number of patient visits, and number of residents per academic year.

percentage of time in clinic for 1-year periods (academic years) for PGY levels ranged from 10% to 30%.

Over the 17 years, there were 111 885 visits. After excluding nonresident visits (eg, attending or other professional visits), we counted 79 031 visits that met criteria for our study. Of these visits, 4% (3105) were excluded because the provider could not be clearly identified. There were 75 926 visits left for analyses. The number of patients per year ranged from 751 to 2355 (Fig 1). The number of patient visits per year ranged from 2439 to 6867. Overall and of the visits that qualified for this study, the percentage of visits for WCC was 38% and for sick care was 62%. The percentage of visits for WCC increased from 23% in 1982 to 40% in 1998.

Our initial analysis included all visits (sick and well). We found continuity to vary with percentage of time in clinic (Table 1). It was highest (65.3%) when the percentage of time in clinic was 30% (3 half-day sessions per week). There was a significant correlation between continuity and the percentage of time in clinic ($r = .22$, $P < .01$).

TABLE 1. Percentage of Time in Clinic Versus Continuity Measured by the PHY Formula

% Time in Clinic	No. of Residents	Mean Continuity (SD)	Range
10	302	55.6 (10.7)	23.0–80.0
17.5	15	53.9 (9.3)	37.8–69.1
20.8	32	56.8 (8.6)	37.7–75.5
23.4	16	60.9 (9.4)	40.4–74.5
24.1	13	58.9 (9.7)	40.9–75.4
25	46	63.4 (10.5)	33.7–80.9
28.5	15	44.8 (13.1)	8.6–64.1
30	49	65.3 (11.6)	41.1–85.6

One half day in clinic equals 10% for percentage time in clinic. Percentage of time in clinic was averaged for each academic year for each level of training.

From the multivariable model, we established 3 significant predictors of continuity: percentage of time in clinic, postgraduate level of training, and academic year (all $P < .01$; Table 2). The multivariate analysis allowed the determining of the effect size of 11%: for every increase in percentage of time in clinic of 10% or 1 half-day, physician continuity improves by 11%.

Level of training (PGY1, 2, or 3) and academic year (1982–1998) were also predictors of continuity (Table Tables 2 and 3). Interns had a mean continuity of 57.2% (SD: 8.9; range: 31.8–78.3). PGY2 residents had a mean continuity of 62.1 (SD: 10.1; range: 39.6–85.6). PGY3 residents had a mean continuity of 52.4 (SD: 13.0; range: 8.6–83.7). Mean continuity varied with academic year (4).

We repeated the analyses with sick visits only and WCC visits only (Table 3). Physician continuity decreased for sick visits only and increased for WCC visits only. Interns had a mean continuity of 57.2% for all visits, 30.1% for sick visits only, and 95.4% for WCC visits only. At the PGY2 level, residents had a mean continuity of 62.1% for all visits, 38.3% for sick visits only, and 96% for WCC visits only.

When limited to sick visits, the correlation coefficient between continuity and the percentage of time in clinic improved to .58 ($P < .01$). When limited to sick visits only, postgraduate level of training and academic year were no longer significant predictors of continuity. The effect size of percentage of time in clinic on continuity remained 11%. When limited to WCC visits only, there was no significant correlation between continuity and the percentage of time in clinic.

DISCUSSION

A continuous relationship between patient/family and a health care provider has been long esteemed.

TABLE 2. Predictors of Physician Continuity, Measured by PHY Formula

Variable	β -1 (SE)	95% CI	P Value
% time in clinic	1.1* (.19)	0.7–1.4	<.01
PGY 1	8.4 (1.2)	5.2–9.5	<.01
PGY 2	11 (.96)	9.0–13	<.01
PGY 3	Reference	Reference	Reference
Academic year 1982	–14 (4.0)	–22 to –6.5	<.01
1983	–20.3 (3.8)	–28 to –13	<.01
1984	–22 (4)	–30 to –14.6	<.01
1985	–18 (3.7)	–26 to –11	<.01
1986	–16.7 (3.6)	–23.8 to –9.6	<.01
1987	–19.2 (3.5)	–26.2 to –12.3	<.01
1988	–24 (4)	–31 to –16	<.01
1989	–27 (4.3)	–35.7 to –18.8	<.01
1990	–4.5 (2.6)	–9.7 to 0.7	.09
1991	–8.9 (2.4)	–14 to –4.2	<.01
1992	–10 (2.2)	–14 to –5.7	<.01
1993	–11 (2.1)	–15 to –7	<.01
1994	–13.2 (2.2)	–18 to –8.8	<.01
1995	–14.6 (2.1)	–18.8 to –10.5	<.01
1996	–9.3 (2.1)	–13.4 to –5.2	<.01
1997	–6.0 (2.1)	–10 to –1.9	<.01
1998	Reference	Reference	Reference

All visits (sick and WCC visits) were included. Intercept = 47. CI indicates confidence interval.

* β value of 1.1 is for a change of 1% of time in continuity clinic. The effect size of a increase in 1 half day (10% of resident's time) is 11% increase in continuity.