

**Report of Responses to the  
2003, 2005 and 2007  
Indiana Physician Surveys**

Produced by:

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## Executive Summary

### ***Introduction***

A variety of survey methods have been used since the 1970's to learn more about the physician supply and distribution in the state of Indiana. Since 1997, a voluntary survey instrument has been attached to the physician license renewal form, which physicians complete every 2 years. Those renewing their licenses online in 2003, 2005 and 2007 were invited to complete the survey. Those renewing their license through the mail were not given the opportunity to complete the survey. The physician survey was implemented through a collaboration of the Indiana State Department of Health (ISDH) and the Indiana Professional Licensing Agency (IPLA). This report summarizes the responses to the 2003, 2005 and 2007 Indiana Physician Surveys and compares these results to the results of the prior physician surveys reported in the *Indiana Physician Survey Databook, 1997* and the *Indiana Physician Survey Databook, 2001*.

### ***Purpose***

The purpose of this report is to provide an in-depth examination of the physician resources in Indiana so that state agencies and other interested parties have current data to facilitate decision making. It is the goal of the report to provide accurate, timely and relevant data for legislators, medical educators, physicians, community leaders, and health care executives and planners in their discussion of the health care needs of the citizens of the state of Indiana.

### ***Methods***

Survey items included current work status, current practice type, practice location and the types of services they perform in their offices. The survey also asked the average hours of practice time, and how long they had been practicing in Indiana. Questions to measure the demographic characteristics of the physicians were also included.

### ***Survey Response Rates***

A total of 21,060 (in 2003), 22,351 (in 2005) and 25,353 (in 2007) physicians renewed their Indiana licenses [Table 1.1]. Of those, 72.1% (in 2003), 57.1% (in 2005) and 79.1% (in 2007) physicians renewed their licenses on-line and were invited to complete the survey [Table 1.1]. The total response rates for the re-licensure periods were 84.4% in 1997, 91.8% in 2001, 59.8% in 2003, 45.1% in 2005, and 67.0% in 2007.

### ***Actively Practicing***

Of those who responded, 99.0% (in 2003), 95.0% (in 2005) and 94.5% (in 2007) physicians were active in medicine [Table 1.2]. Of whom, 5.4% (in 2003), 4.9% (in 2005) and 3.4% (in 2007) were in training, either as residents or fellows [Table 1.2]. In 2007, 93.6% of the physicians held Doctor of Medicine (MD) degrees and 6.4% held Doctor of Osteopathy (DO) degrees.

### ***Demographic Characteristics***

The average age of practicing physicians in Indiana has been getting older. About one-tenth, (13.0% in 2003, 12.5% in 2005, and 9.2% in 2007) of the physicians were under the age of 35 [Table 2.1]. Three-fifths (66.1% in 2003, 63.1% in 2005 and 59.7% in 2007) of the physicians who responded were in the 45-54 age group [Table 2.1]. Over one-fifth of the respondents, (20.9% in 2003, 24.4% in 2005, and 31.1% in 2007) were over the age of 55 [Table 2.1]. Gender and race/ethnicity were captured in the 2005 survey only. Of those who responded, 1,462 (24.9%) were females, 4,571 (78.4%) were White, and 5,684 (97.9%) were non-Hispanic [Table 2.2, 2.3, 2.4].

### ***Employment Characteristics***

Over ninety percent of the respondents, (92.7%, 92.0% and 92.4% in 2003, 2005 and 2007, respectively) indicated that they were actively involved in direct patient-care related activities [Table 2.5]. Among those actively practicing medicine, 91.7% (in 2005) and 92.5% (in 2007) were spending all of their time practicing in Indiana [Table 2.6]. Over four-fifths of the respondents (83.4% in 2003, 83.8% in 2005, and 82.1% in 2007) reported working more than 40 hours per week [Table 2.7]. The top three major specialties of physicians were

family medicine/general practice (19.3% in 2003, 19.1% in 2005, and 18.9% in 2007), general internal medicine (9.4% in 2003, 8.7% in 2005, and 8.3% in 2007) and anesthesiology (7.9% in 2003, 8.4% in 2005, and 7.3% in 2007) [Table 2.8]. Over two-fifths of the respondents (42.7% in 2003, 51.1% in 2005, and 40.2% in 2007) who indicated they performed obstetrics were family physicians [Table 2.10]. Over two-fifths of the respondents (55.5% in 2003, 45.0% in 2005, and 44.1% in 2007) who provided prenatal care were family physicians in comparison to over one-third who were obstetricians/gynecologists (34.7% in 2003, 43.6% in 2005, and 42.7% in 2007) [Table 2.11]. Of the respondents, about two-fifths of the family physicians (21.6% in 2003, 19.6% in 2005, and 19.8% in 2007) performed intensivist medicine compared to over one-tenths of general internists (16.8% in 2003, 14.5% in 2005, and 12.0% in 2007) [Table 2.12].

### ***Location of Physicians in Indiana***

The counties with the largest populations had the highest ratio of primary care physicians per 100,000 population [Map 4.1] as well as the highest ratio of non-primary care physicians per 100,000 population [Map 4.3]. Family physicians were the only specialty that distributed itself evenly throughout the population.

### ***Time Trends in the Physician Workforce***

There was a trend showing an increase in the number of physicians in the 45-64 age group and a drop in the 35-44 age group [Figure 5.1]. The total number of physicians renewing their licenses in Indiana has increased over the past decade. There is an increasing trend towards non-primary care in comparison to primary care in Indiana [Figure 5.2]. This parallels the national trends. The majority of the physicians were active in medicine [Figure 5.3], with direct patient-care being the top activity in which they spent most of their professional time [Figure 5.4]. Both trends are increasing. On an average, most physicians indicated they worked 40 or more hours [Figure 5.5]. This trend is increasing. There is a steady growth in the number of obstetricians who provide prenatal care and obstetrical services [Figure 5.6]. But a decline was seen in the number of family physicians who provide prenatal care and obstetrical services [Figure 5.7]. Also, a decline was noted among general internists and family physicians performing intensivist medicine [Figure 5.8].

### ***Conclusions***

There has been an increase in the number of licensed physicians actively practicing in Indiana, with the majority working in direct patient-care related activities. A large number of physicians worked over 40 hours per week. Family medicine/general practice, general internal medicine and anesthesiology are the top three largest specialties.

### ***Recommendations***

With input from the advisory committee, the Bowen Research Center team has recommended changes to the survey instrument to improve the quality of the data and to improve comparability with other surveys (*Appendix 2*). In addition, it is recommended that all physicians be encouraged to complete the survey as part of their licensing renewal process.

***DISCLAIMER: Care should be taken in utilizing these data or conclusions drawn in this report for statistical or planning purposes. As reflected in the response rates for each renewal period, the datasets are incomplete as some physicians did not renew their license electronically and for those that did, participation in the electronic survey was voluntary. Consequently, the numbers reported in chapters 2 and 3 undercount the actual number of physicians; however, the data shown in chapters 4 and 5 have been adjusted to account for the survey non-respondents. The proportions shown in all four chapters (2 to 5) are presumed to be representative of all physicians.***

## Chapter 1: Introduction

The Indiana State Department of Health (ISDH) and the Indiana Professional Licensing Agency (IPLA) collaborated in implementing the 1997, 2001, 2003, 2005, and 2007 Indiana Physician Surveys. In 1997 and 2001, licenses were renewed by mail and an accompanying paper questionnaire was included to which physicians were asked to complete and return with their licensing information. Paper surveys were discontinued after 2001. However, IPLA began accepting and promoting electronic license renewals in 2003. All physicians who renewed their license electronically during the 2003, 2005 and 2007 Indiana physician re-licensure periods were asked to complete a voluntary survey instrument.

Indiana has historically recorded fewer physicians per population than the recommended national guidelines. Thus, having an accurate understanding of the personal and professional characteristics of physicians licensed in Indiana is critical to develop and manage effective programs to recruit and retain physicians where they are most needed in the State. Having quality data about physicians in Indiana will help policymakers and other interested parties make better decisions than they would be able to make otherwise. The purpose of this report is to provide those quality data. The findings from this report may be used to identify physician shortage areas, develop more recruitment and retention strategies and plan additional locations for training residents and fellows within the state.

The physician survey instruments used included items to address current work status, primary practice site, activities performed in the practice, average hours worked, practice time spent in Indiana and demographics. A copy of the 2003, 2005 and 2007 Indiana Physician Survey instruments are included in *Appendix 1*.

This report summarizes the responses to the 2003, 2005 and 2007 Indiana Physician Surveys and compares the results from the current surveys to the results of the prior physician surveys (1997 and 2001). Reports summarizing the responses to the 1997 and 2001 surveys (*Indiana Physician Survey Databook, 1997* and *Indiana Physician Survey Databook, 2001*) are no longer available online. However, responses to items from those surveys that were also included in the 2003, 2005 or 2007 surveys are shown in this report.

### Response Rates

Table 1.1 Electronic License Renewal

Electronic Survey	2003		2005		2007	
	Number	Percent	Number	Percent	Number	Percent
Did not renew electronically	5,869	27.9	9,583	42.9	5,311	20.9
Renewed electronically	15,191	72.1	12,768	57.1	20,042	79.1
Total	21,060	100.0	22,351	100.0	25,353	100.0

Table 1.1 shows that 21,060 (in 2003), 22,351 (in 2005) and 25,353 (in 2007) physicians renewed their licenses. Of those, 72.1% in 2003, 57.1% in 2005 and 79.1% in 2007, renewed their licenses online. Only those physicians who renewed their licenses electronically in 2003, 2005 and 2007 had the opportunity to complete the survey. The total response rates for the re-licensure periods were 84.4% in 1997, 91.8% in 2001, 59.8% in 2003, 45.1% in 2005, and 67.0% in 2007.

### Physicians Active in Indiana

Nearly three-fifths of the respondents (63.6% in 2003, 59.5% in 2005, and 60.9% in 2007) who were licensed in Indiana also listed their primary practice location was in Indiana. The remaining approximately 40% were either practicing in another state or they were not currently practicing. Over one-tenth (13.9% in 2003, 13.7% in 2005, and 15.5% in 2007) indicated their primary practice location was in one of the four neighboring states: Illinois, Kentucky, Michigan, and Ohio.

## Current Work Status in Medicine

Table 1.2 Survey Respondent's Current Work Status in Medicine\*\*

Current Work Status	2001*		2003		2005		2007	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Physician active in medicine	9,984	93.1	6,611	92.7	5,195	88.3	8,543	89.3
Physician in training (medical resident/fellow)	557	5.1	385	5.4	288	4.9	326	3.4
Physician active in medicine, locum tenens Only	NA	NA	11	0.2	51	0.9	99	1.0
Physician active in medicine, federally employed	NA	NA	52	0.7	51	0.9	76	0.8
Retired from active medical practice	157	1.5	46	0.6	179	3.0	352	3.7
Temporarily inactive in medicine	30	0.3	31	0.4	119	2.0	174	1.8
Total	10,728	100.0	7,136	100.0	5,883	100.0	9,570	100.0
Missing	8		47		48		20	

\* *Indiana Physician Survey Databook 1997 & 2001*, Indiana Health Care Professional Development Commission.

\*\* These numbers represent survey respondents only.

As presented in Table 1.2, nearly all (99.0% in 2003, 95.0% in 2005, and 94.5% in 2007) of the survey respondents were active in medicine. Of those, about five percent of the respondents were in training as residents or fellows.

### Data Analysis

The Indiana University Department of Family Medicine's Bowen Research Center staff received three data files from ISDH that contained the responses to the 2003, 2005 and 2007 physician surveys and a data dictionary to describe the data in the datasets. The SPSS (Statistical Package for the Social Sciences) software (version 16.0) was used to analyze the data compiled from the online survey and licensure information about physicians from the IPLA database. A working dataset was created for only those physicians that were working in Indiana. Only physicians with active license status, physicians in training, physicians on locum tenens, and physicians who were federally employed, were included in most of the results presented in this report. Physicians who retired or were temporarily inactive in medicine were excluded.

### Limitations of the Survey

The survey instruments used in 2003, 2005 and 2007 are shown in *Appendix 1*. Physician specialty is self designated. Several concerns with the survey instrument and administration of the survey were raised during discussions with members of the advisory committee. Proposed changes to the survey instrument are shown in *Appendix 2*. One of the main changes to the proposed instrument was to shorten its length; however, a few new questions have been added to gather critical data. Specific questions have been re-worded to obtain more precise information. Implementing these changes will improve the validity and reliability of the data collected and reported.

### Organization of this Report

The following chapters in this report present the results of several different analyses of the 2003, 2005 and 2007 physician survey data. *Chapter 2* provides tables summarizing the responses to all of the survey questions. Graphs illustrating responses to key items are also shown. *Chapter 3* compares primary care physician respondents to the non-primary care physician respondents. *Chapter 4* presents maps of Indiana showing the number of physicians and the ratio of physicians to population in each county. *Chapter 5* summarizes the time trends in the physician workforce and shows projections into the future. Finally, *Chapter 6* summarizes the results of the data analysis.

### Appendices

The Appendices at the end of the report include the Indiana Physician Survey instruments used in 2003 (in *Appendix 1A*), 2005 (in *Appendix 1B*), and 2007 (in *Appendix 1C*). *Appendix 2* includes the recommendations to improve the 2009 survey instrument. *Appendix 3* includes a comparison chart to show survey items present in 2007 survey but not in the previous years.

## Chapter 2: Responses to the 2003, 2005 and 2007 Indiana Physician Surveys

This chapter summarizes the responses to the items included on the 2003, 2005 and 2007 Indiana Physician Surveys as well as the 1997 and 2001 surveys for those items that were worded the same on the survey instruments. Unless otherwise noted, the number of respondents for the 2003, 2005 and 2007 physician survey have been shown in the tables below. The numbers have not been adjusted for those who did not participate in the surveys. The number of missing responses from the participants is shown for each question and only the percentages of valid responses are shown. Where possible, comparisons are presented between the responses to the 2007 and prior surveys (1997, 2001, 2003 and 2005).

### Age

**Table 2.1 Age of Survey Respondents\*\***

Age	1997*		2001*		2003		2005		2007	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Under 35	389	4.9	830	8.5	921	13.0	736	12.5	869	9.2
35-44	2,822	35.8	3,391	34.6	2,355	33.2	1,805	30.7	2,611	27.5
45-54	2,544	32.3	3,269	33.3	2,333	32.9	1,906	32.4	3,060	32.2
55-64	1,325	16.8	1,573	16.0	1,082	15.2	1,009	17.3	1,969	20.8
Over 65	806	10.2	749	7.6	406	5.7	419	7.1	980	10.3
Total	7,886	100.0	9,812	100.0	7,097	100.0	5,875	100.0	9,489	100.0
Missing	179		172		86		56		101	

\* *Indiana Physician Survey Databook 1997 & 2001*, Indiana Health Care Professional Development Commission.

\*\* These numbers represent survey respondents only.

Table 2.1 shows the age distribution of respondents in 1997, 2001, 2003, 2005 and 2007. Two-fifths of the respondents were under 45 years of age. About one-third of the physicians who responded were in the 45-55 age group each year. A larger proportion of physicians were in the age 55 or older age group in 2007 (31.1%). This group, comprising nearly one-third of the physician workforce, is approaching retirement in the next decade.

### Gender

**Table 2.2 Gender of Survey Respondents\*\***

Gender	1997*		2001*		2005	
	Number	Percent	Number	Percent	Number	Percent
Male	6,578	82.6	7,694	79.1	4,419	75.1
Female	1,384	17.4	2,039	20.9	1,462	24.9
Total	7,962	100.0	9,733	100.0	5,881	100.0
Missing	103		251		50	

\* *Indiana Physician Survey Databook 1997 & 2001*, Indiana Health Care Professional Development Commission.

\*\* These numbers represent survey respondents only.

Gender distribution for respondents in 1997, 2001 and 2005 is shown in Table 2.2. The question on gender was not asked on the 2003 or 2007 survey. Over three-fourths of the responding physicians were males. However, there has been an increase in the percentage of female physicians since 1997.



## Race

**Table 2.3 Race of Survey Respondents\*\***

Race	1997		2001		2005	
	Number	Percent	Number	Percent	Number	Percent
White	6,496	82.2	7,693	79.8	4,571	78.4
Black/African American	231	2.9	355	3.7	225	3.9
Asian/Pacific Islander	965	12.2	1,187	12.3	709	12.2
American Indian/Alaska Native	5	0.1	6	0.1	12	0.2
Multi-Racial	NA	NA	47	0.5	47	0.8
Other	209	2.6	352	3.6	262	4.5
Total	7,906	100.0	9,640	100.0	5,826	100.0
Missing	159		344		105	

\* *Indiana Physician Survey Databook 1997 & 2001*, Indiana Health Care Professional Development Commission.

\*\* These numbers represent survey respondents only.

The number and percentage of respondents in several racial categories for 1997, 2001 and 2005 are shown in Table 2.3. The question on race was not asked on the 2003 or 2007 survey. The percentage of physicians reporting their race as “White” decreased between 1997 and 2005. There was a minimal increase among those who reported “Black/African American.” “Multi-racial” was not included as a response option on the 1997 survey.

## Ethnicity

**Table 2.4 Ethnicity of Survey Respondents\*\***

Hispanic Origin	1997*		2001*		2005	
	Number	Percent	Number	Percent	Number	Percent
Yes	166	2.3	232	2.5	124	2.1
No	6,966	97.7	9,017	97.5	5,684	97.9
Total	7,132	100.0	9,249	100.0	5,808	100.0
Missing	933		735		123	

\* *Indiana Physician Survey Databook 1997 & 2001*, Indiana Health Care Professional Development Commission.

\*\* These numbers represent survey respondents only.

Table 2.4 represents the ethnicity of the respondents for the 1997, 2001 and 2005 surveys. The question on ethnicity was not asked on the 2003 or 2007 survey. The percentage of physicians who reported they were of Hispanic origin has remained fairly stable during the period from 1997 to 2005.

## Physician Activities in Medicine in Indiana

**Table 2.5 Activity in Which Most Professional Time Spent by Survey Respondents\***

Activity	2003		2005		2007	
	Number	Percent	Number	Percent	Number	Percent
Direct patient care/ related activities	6,607	92.7	5,241	92.0	8,399	92.4
Administration	171	2.4	142	2.5	236	2.6
Research	167	2.3	158	2.8	221	2.4
Teaching	109	1.5	82	1.4	139	1.5
Other	79	1.1	74	1.3	98	1.1
Total	7,133	100.0	5,697	100.0	9,093	100.0
Missing	50		234		497	

\* These numbers represent survey respondents only.

The activity in which the respondents spent most of their professional time is shown in Table 2.5. As expected, “direct patient care related activities” topped the list. Teaching and research percentages remained stable over the years.

### Physician Practice Time in Indiana

**Table 2.6 Percentage of Patient Care Time Spent in Indiana by Survey Respondents\***

Indiana	2005		2007	
	Number	Percent	Number	Percent
Less than 20 percent	68	1.2	96	1.1
20-29 percent	24	0.4	35	.4
30-39 percent	12	0.2	40	.4
40-49 percent	18	0.3	35	.4
50-59 percent	39	0.7	62	.7
60-69 percent	14	0.2	27	.3
70-79 percent	27	0.5	42	.5
80-89 percent	73	1.3	114	1.3
90-100 percent	5,216	91.7	8,404	92.5
I do not provide direct patient care services	198	3.5	221	2.4
Total	5,689	100.0	9,076	100.0
Missing	242		514	

\* These numbers represent survey respondents only.

Table 2.6 represents the percentage of patient care time that the respondents spent in Indiana. Majority of the respondents indicated that they spent all their patient care time within the state of Indiana. However, the percentage of physicians who indicated they ‘do not provide any patient care services’ showed a slight decrease between 2005 and 2007.

### Physician Average Number of Weekly Hours in All Activities in Medicine

**Table 2.7 Average Hours Worked per Week in all Activities in Medicine by Survey Respondents\***

Hours	2003		2005		2007	
	Number	Percent	Number	Percent	Number	Percent
0	25	0.4	28	0.5	44	0.5
1-9	95	1.3	82	1.4	143	1.6
10-19	132	1.9	118	2.1	225	2.5
20-29	247	3.5	204	3.6	377	4.1
30-39	677	9.5	492	8.6	841	9.2
40 or more	5,923	83.4	4,764	83.8	7,460	82.1
Total	7,099	100.0	5,688	100.0	9,090	100.0
Missing	84		243		500	

\* These numbers represent survey respondents only.

As shown in Table 2.7, the number of respondents who worked full time (i.e., 40 or more hours) dropped slightly in 2007. In addition, those who responded they worked part time (i.e., 20 or less hours) showed a slight increase between 2003 (3.6%) and 2007 (4.6%).

## Physicians by Major Specialty

Table 2.8 Major Specialty of Survey Respondents\*\*

Major Specialty	1997*		2001*		2003		2005		2007	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Allergy & Immunology	45	0.6	47	0.5	29	0.4	22	0.4	46	0.5
Anesthesiology (AN)	543	6.9	656	6.6	565	7.9	497	8.4	696	7.3
Cardiology	293	3.7	372	3.8	225	3.1	135	2.3	331	3.5
Critical Care Medicine (CCM)	17	0.2	30	0.3	9	0.1	7	0.1	65	0.7
Dermatology	NA	NA	NA	NA	73	1.0	62	1.0	103	1.1
Emergency Medicine (EM)	423	5.3	529	5.3	502	7.0	473	8.0	658	6.9
Endocrinology	51	0.6	80	0.8	61	0.9	57	1.0	88	0.9
Family Medicine/General Practice	1,641	20.7	1,964	19.8	1,377	19.3	1,127	19.1	1,809	18.9
Gastroenterology/Hepatology	NA	NA	NA	NA	109	1.5	77	1.3	136	1.4
Genetics	NA	NA	NA	NA	NA	NA	NA	NA	99	1.0
Geriatrics (GERI)	25	0.3	38	0.4	27	0.4	29	0.5	27	0.3
Hematology/Oncology	108	1.4	137	1.4	111	1.6	90	1.5	55	0.6
Infectious Diseases (ID)	54	0.7	62	0.6	39	0.5	38	0.6	60	0.6
Internal Medicine, General	575	7.3	922	9.3	670	9.4	513	8.7	798	8.3
Internal Medicine- Pediatrics	31	0.4	70	0.7	71	1.0	60	1.0	99	1.0
Nephrology	NA	NA	NA	NA	79	1.1	70	1.2	107	1.1
Neurology	116	1.5	164	1.7	136	1.9	88	1.5	158	1.7
Obstetrics/Gynecology	436	5.5	510	5.2	341	4.8	353	6.0	511	5.3
Ophthalmology	209	2.6	234	2.4	172	2.4	106	1.8	176	1.8
Orthopedic Surgery	NA	NA	NA	NA	NA	NA	NA	NA	347	3.6
Otolaryngology	NA	NA	NA	NA	86	1.2	82	1.4	101	1.1
Pathology, General	193	2.4	183	1.8	0	0.0	0	0.0	0	0.0
Pathology, Subspecialty	29	0.4	49	0.5	178	2.5	165	2.8	254	2.7
Pediatrics, General	387	4.9	508	5.1	328	4.6	285	4.8	469	4.9
Pediatrics, Subspecialty	114	1.4	181	1.8	170	2.4	142	2.4	263	2.8
Physical Medicine & Rehabilitation	NA	NA	NA	NA	61	0.9	37	0.6	80	0.8
Plastic Surgery	NA	NA	NA	NA	61	0.9	38	0.6	68	0.7
Psychiatry	398	5.0	465	4.7	346	4.8	275	4.7	424	4.4
Pulmonary Medicine	90	1.1	110	1.1	89	1.2	60	1.0	90	0.9
Radiology (R)	331	4.2	354	3.6	62	0.9	28	0.5	111	1.2
Radiology, Subspecialty	33	0.4	139	1.4	243	3.4	250	4.2	261	2.7
Radiation Oncology (RO)	69	0.9	72	0.7	51	0.7	46	0.8	44	0.5
Rheumatology (RHU)	39	0.5	48	0.5	34	0.5	28	0.5	44	0.5
Surgery - General (GS)	271	3.4	319	3.2	209	2.9	157	2.7	297	3.1
Surgery, Subspecialty	525	6.6	672	6.8	384	5.4	320	5.4	232	2.4
Urology	137	1.7	146	1.5	73	1.0	60	1.0	132	1.4
Other Specialty	727	9.2	835	8.4	172	2.4	132	2.2	323	3.4
<b>Total</b>	<b>7,910</b>	<b>100.0</b>	<b>9,896</b>	<b>100.0</b>	<b>7,143</b>	<b>100.0</b>	<b>5,909</b>	<b>100.0</b>	<b>9,562</b>	<b>100.0</b>
Missing	155		88		38		22		28	

\* *Indiana Physician Survey Databook 1997 & 2001*, Indiana Health Care Professional Development Commission.

\*\* These numbers represent survey respondents only.

The 2003, 2005, 2007 surveys contained seven new specialties: dermatology, gastroenterology/hepatology, genetics, nephrology, otolaryngology, physical medicine and rehabilitation, and plastic surgery. Orthopedic surgery was added in the 2007 survey.

“Other Specialty” category includes, but is not limited to, aerospace medicine, hospitalist, neonatal-perinatal medicine, occupational medicine, and urgent care medicine.

A total of 208 specialties were available on the survey. For purposes of the table, they have been “grouped” into 37 sub-categories.

As shown in Table 2.8, the three specialties reported by the largest numbers of respondents between 1997 and 2007, were family medicine/general practice, general internal medicine, and anesthesiology. However, the percent of physicians in family medicine/general practice has declined from 20.7% in 1997 to 18.9% in 2007.

## Physicians by Aggregated Specialty

Table 2.9 Major Specialty of Survey Respondents\*\*

Major Specialty	1997*		2001*		2003		2005		2007	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Primary Care	2,634	33.3	3,464	35.0	2,446	34.2	1,985	33.6	3,175	33.2
Anesthesiology	543	6.9	656	6.6	565	7.9	497	8.4	696	7.3
Emergency Medicine	423	5.3	529	5.3	502	7.0	473	8.0	658	6.9
Geriatrics	25	0.3	38	0.4	27	0.4	29	0.5	27	0.3
Internal Medicine, Subspecialties	905	11.4	1,149	11.6	1,038	14.5	772	13.1	1,468	15.4
Obstetrics/Gynecology	436	5.5	510	5.2	341	4.8	353	6.0	511	5.3
Ophthalmology	209	2.6	234	2.4	172	2.4	106	1.8	176	1.8
Orthopedic Surgery	NA	NA	NA	NA	NA	NA	NA	NA	347	3.6
Otolaryngology	NA	NA	NA	NA	86	1.2	82	1.4	101	1.1
Pathology	222	2.8	232	2.3	178	2.5	165	2.8	254	2.7
Pediatrics, Subspecialty	114	1.4	181	1.8	170	2.4	142	2.4	263	2.8
Physical Medicine & Rehabilitation	NA	NA	NA	NA	61	0.9	37	0.6	80	0.8
Plastic Surgery	NA	NA	NA	NA	61	0.9	38	0.6	68	0.7
Psychiatry	398	5.0	465	4.7	346	4.8	275	4.7	424	4.4
Radiology	433	5.5	565	5.7	356	5.0	324	5.5	416	4.4
Surgery	796	10.1	991	10.0	593	8.3	477	8.1	529	5.5
Other Specialties	772	9.8	882	8.9	201	2.8	154	2.6	369	3.9
Total	7,910	100.0	9,896	100.0	7,143	100.0	5,909	100.0	9,562	100.0
Missing	155		88		38		22		28	

\* *Indiana Physician Survey Databook 1997 & 2001*, Indiana Health Care Professional Development Commission.

\*\* These numbers represent survey respondents only.

Primary care includes: family medicine/general practice, general internal medicine, general pediatrics, and internal medicine/pediatrics.

(Sources for Primary Care Definition: [www.connecticare.com/provider/physicianmanual/glossary.htm](http://www.connecticare.com/provider/physicianmanual/glossary.htm); [www.horizon-bcbsnj.com/members\\_resources\\_faq\\_glossary.asp](http://www.horizon-bcbsnj.com/members_resources_faq_glossary.asp))

Internal medicine subspecialties include: cardiology, critical care medicine, dermatology, endocrinology, gastroenterology/hepatology, genetics, hematology/oncology, infectious disease, nephrology, neurology, pulmonary medicine, rheumatology, and urology.

Other Specialties include: allergy & immunology and “other specialty” (from Table 2.8).

Between 1997 and 2003, primary care, internal medicine (subspecialties) and surgery were the top three specialties reported by respondents, as shown in Table 2.9. However, in the next two re-licensure periods (namely, 2005 and 2007), the top 3 specialties were primary care and internal medicine (subspecialties) followed by anesthesiology.

## Physicians Performing Obstetrics

Table 2.10: Do you perform Obstetrics?\*\*\*

	2001*		2003		2005		2007	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Family Practice	471	51.5	371	42.5	532	50.4	322	40.2
Gynecology & Obstetrics	443	48.5	375	43.0	397	37.6	369	46.1
Other	NA	NA	127	14.5	127	12.0	110	13.7
Total	914	100.0	873	100.0	1056	100.0	801	100.0
Missing	45		1		3		2	

\* *Indiana Physician Survey Databook 2001*, Indiana Health Care Professional Development Commission.

\*\* These numbers represent survey respondents who answered “yes” to the question.

As shown in Table 2.10, over four-fifths of the respondents who indicated they performed obstetrics services were family physicians or obstetricians. All others who indicated that they performed obstetric services included in the “Other” category likely assisted but were not the attending physician responsible for the obstetrical services.

## Physicians Performing Prenatal Services

**Table 2.11: Do you perform Prenatal Care?\***

	2003		2005		2007	
	Number	Percent	Number	Percent	Number	Percent
Family Practice	455	54.4	285	44.3	399	43.8
Gynecology & Obstetrics	281	33.6	271	42.1	370	40.7
Other	100	12.0	88	13.7	141	15.5
Total	836	100.0	644	100.0	910	100.0
Missing	1		0		2	

\* These numbers represent survey respondents who answered “yes” to the question.

Table 2.11 shows that a majority of the respondents who indicated they provided prenatal services were family physicians or obstetricians. A decline was seen among the respondents indicating providing prenatal services.

## Physicians Performing Intensivist Medicine

**Table 2.12: Do you perform Intensivist Medicine?\***

	2001*		2003		2005		2007	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Family Practice	255	20.0	243	21.1	163	19.6	233	19.8
General Internal Medicine	242	19.0	194	16.8	121	14.5	141	12.0
Other	779	61.1	716	62.1	548	65.9	803	68.2
Total	1276	100.0	1153	100.0	832	100.0	1177	100.0
Missing			3		4		2	

\* *Indiana Physician Survey Databook 2001*, Indiana Health Care Professional Development Commission.

\*\* These numbers represent survey respondents who answered “yes” to the question.

Intensivist medicine or critical care medicine is a branch of medicine concerned with the provision of life support or organ support systems in patients who are critically ill and who usually require intensive monitoring in an intensive care unit. As shown in Table 2.12, one-third of the respondents who indicated they performed intensivist medicine were family physicians or general internists. However, there has been a drop in the number of general internists who responded that they performed intensivist medicine between 2001 and 2007.

## Chapter 3: Primary Care versus Non-Primary Care Physicians

The results presented in this chapter show the demographic and professional characteristics of the primary care physicians and the non-primary care physicians responding to the 2003, 2005 and 2007 surveys. Based on their responses to the specialty question, physicians were divided into two broad categories: primary care and non-primary care. The primary care group included physicians indicating their specialty was family medicine/general practice, general internal medicine, general pediatrics, and internal medicine-pediatrics. The non-primary care group included physicians in all other specialties.

### Age

Table 3.1 Age of Survey Respondents\*

Age	2003				2005				2007			
	Primary Care		Non-Primary Care		Primary Care		Non-Primary Care		Primary Care		Non-Primary Care	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
21-30	117	4.9	96	2.1	75	3.8	71	1.8	78	2.6	76	1.2
31-40	831	34.5	1,205	25.9	643	32.9	993	25.6	853	27.9	1,380	21.5
41-50	748	31.2	1,790	38.4	576	29.5	1,327	34.0	885	29.0	2,039	31.8
51-60	461	19.2	1,106	23.7	436	22.3	1,030	26.4	770	25.2	1,815	28.4
61-70	162	6.8	383	8.2	145	7.4	364	9.3	289	9.5	797	12.5
71-80	72	3.0	67	1.4	67	3.4	102	2.6	139	4.5	250	3.9
81-90	9	0.4	13	0.3	13	0.7	10	0.3	37	1.2	45	0.7
91-100	0	0.0	0	0.0	0	0.0	1	0.0	3	0.1	3	0.0
Over 100	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	1	0.0
Total	2,400	100.0	4,661	100.0	1,955	100.0	3,898	100.0	3,055	100.0	6,406	100.0

\* These numbers represent survey respondents only.

As shown in Table 3.1, there has been a steady decline in the number of both, primary care and non-primary care, respondents under the age of 40 between 2003 and 2007. However, in the 41 and older age groups, there has been an increase in the percentage of primary care physicians and a decrease in the percentage of non-primary care physicians over these survey periods. Thus, it appears that the primary care workforce is aging faster than those in the non-primary care, likely reflecting the increase in current graduates choosing non-primary care specialties.

### Physicians Active in Indiana

Table 3.2 Survey Respondent's Current Work Status in Medicine\*

Current Work Status	2003				2005				2007			
	Primary Care		Non-Primary Care		Primary Care		Non-Primary Care		Primary Care		Non-Primary Care	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Physician active in medicine	2,205	91.5	4,380	93.4	1,726	88.0	3,460	88.5	2,765	89.5	5,754	89.2
Physician in training (medical resident/fellow)	141	5.8	243	5.2	79	4.0	206	5.3	85	2.7	241	3.7
Physician active in med, locum tenens Only	5	0.2	6	0.1	20	1.0	31	0.8	29	0.9	69	1.1
Physician active in medicine, federally employed	29	1.2	23	0.5	31	1.6	20	0.5	42	1.4	34	0.5
Retired from active medical practice	17	0.7	22	0.5	65	3.3	112	2.9	105	3.4	247	3.8
Temporarily inactive in medicine	15	0.6	13	0.3	41	2.1	77	2.0	65	2.1	107	1.7
Total	2,412	100.0	4,687	100.0	1,962	100.0	3,906	100.0	3,091	100.0	6,452	100.0

\* These numbers represent survey respondents only.

Table 3.2 represents the current work status of respondents. In addition, the percentage of primary care and non-primary care residents and fellows dropped between 2003 and 2007.

## Physician Activities in Medicine in Indiana

**Table 3.3 Activity in Which Most Professional Time Spent by Survey Respondents\***

Activity	2003				2005				2007			
	Primary Care		Non-Primary Care		Primary Care		Non-Primary Care		Primary Care		Non-Primary Care	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Direct patient care	2,235	92.4	4,351	92.7	1,735	91.6	3,495	92.3	2,704	92.2	5,860	92.3
Administration	68	2.8	102	2.2	54	2.8	88	2.3	91	3.1	145	2.4
Teaching	47	1.9	62	1.3	44	2.3	38	1.0	73	2.5	66	1.1
Research	41	1.7	126	2.7	40	2.1	118	3.1	37	1.3	182	3.0
Other	29	1.2	50	1.1	22	1.2	51	1.3	26	0.9	71	1.2
Total	2,420	100.0	4,691	100.0	1,895	100.0	3,790	100.0	2,931	100.0	6,144	100.0

\* These numbers represent survey respondents only.

As shown in Table 3.3, between 2003 and 2007 a majority of both the primary care and non-primary care physicians responded they spent most of their professional time in “direct patient care related activities.”

## Physicians Average Number of Weekly Hours in All Activities in Medicine

**Table 3.4 Average Hours Worked per Week in all Activities in Medicine by Survey Respondents\***

Hours	2003				2005				2007			
	Primary Care		Non-Primary Care		Primary Care		Non-Primary Care		Primary Care		Non-Primary Care	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
0	11	0.5	14	0.3	3	0.2	25	0.7	8	0.3	35	0.6
1-9	37	1.5	51	1.1	33	1.7	47	1.2	51	1.7	90	1.5
10-19	57	2.4	80	1.8	42	2.2	76	2.0	83	2.8	140	2.3
20-29	89	3.7	155	3.3	80	4.2	123	3.3	142	4.9	232	3.8
30-39	249	10.3	422	9.1	176	9.3	315	8.3	302	10.3	539	8.7
40 or more	1,972	81.6	3,939	84.4	1,558	82.4	3,198	84.5	2,340	80.0	5,110	83.1
Total	2,415	100.0	4,661	100.0	1,892	100.0	3,784	100.0	2,926	100.0	6,146	100.0

\* These numbers represent survey respondents only.

Table 3.4 shows the average number of hours per week the respondents worked in all activities related to medicine between the 2003 and 2007 re-licensure period. The percentage of non-primary care physicians who responded that they worked 40 or more hours or more per week was consistently higher than the percentage of primary care physicians. Of those who responded, there was a steady increase in the number of primary care and non-primary care physicians who worked part-time (i.e., 20 hours or less) and a small drop in those working full time (i.e., 40 hours or more).

## Physicians Performing Obstetrics

**Table 3.5 Do you Perform Obstetrics?\***

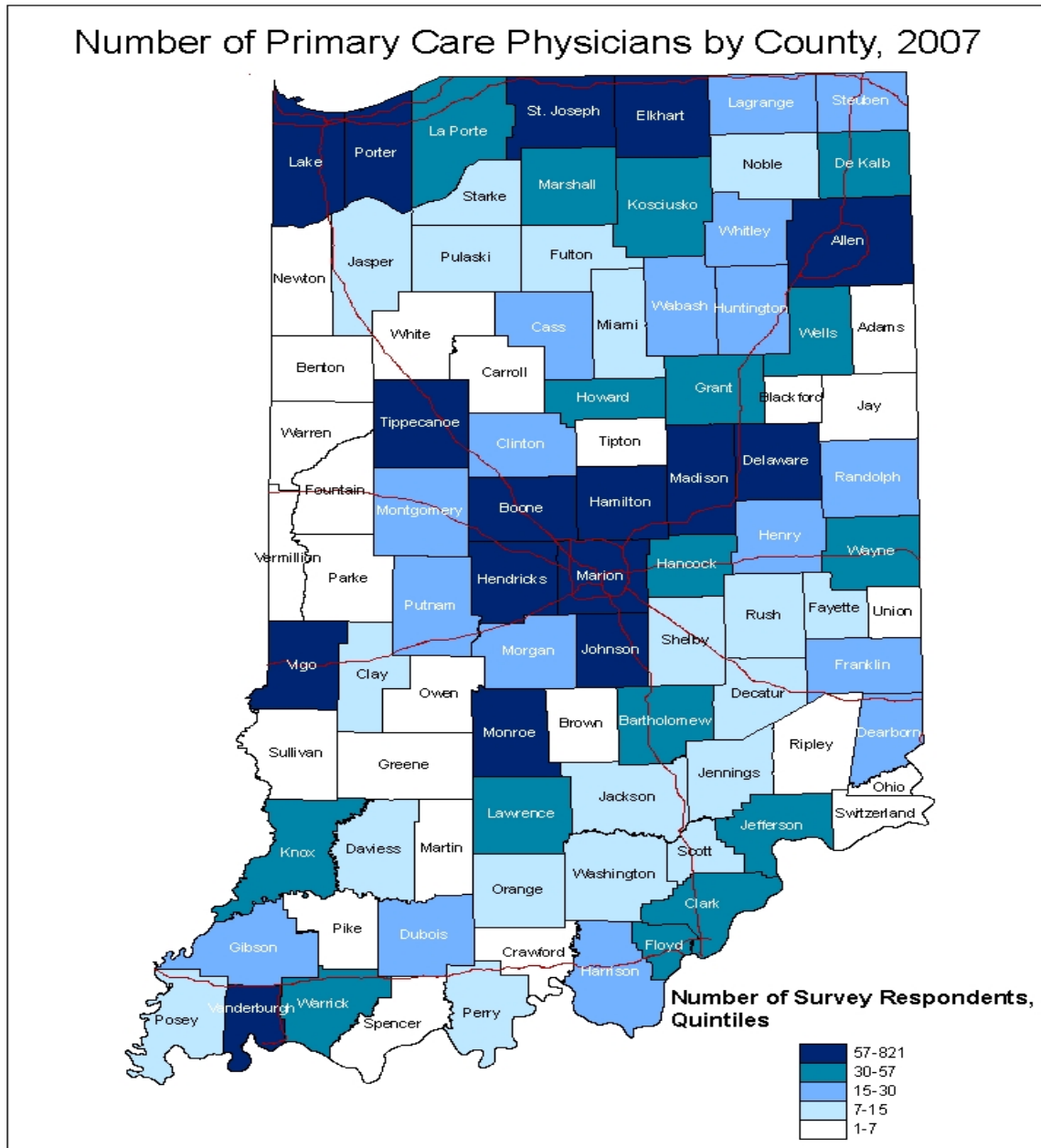
Obstetrics	2003				2005				2007			
	Primary Care		Non-Primary Care		Primary Care		Non-Primary Care		Primary Care		Non-Primary Care	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Yes	379	15.7	357	7.6	250	13.2	336	8.8	323	11.0	478	7.8
No	2,036	84.3	4,324	92.4	1,642	86.8	3,464	91.2	2,605	89.0	5,674	92.2
Total	2,415	100.0	4,681	100.0	1,892	100.0	3,800	100.0	2,928	100.0	6,152	100.0

\* These numbers represent survey respondents only.

As presented in Table 3.5, there has been a steady decline in the percent of primary care physicians performing obstetrics between 2003 and 2007. The proportion of non-primary care physicians performing obstetrical services remained essentially constant over the survey periods.

## Chapter 4: Location of Physicians by County in Indiana

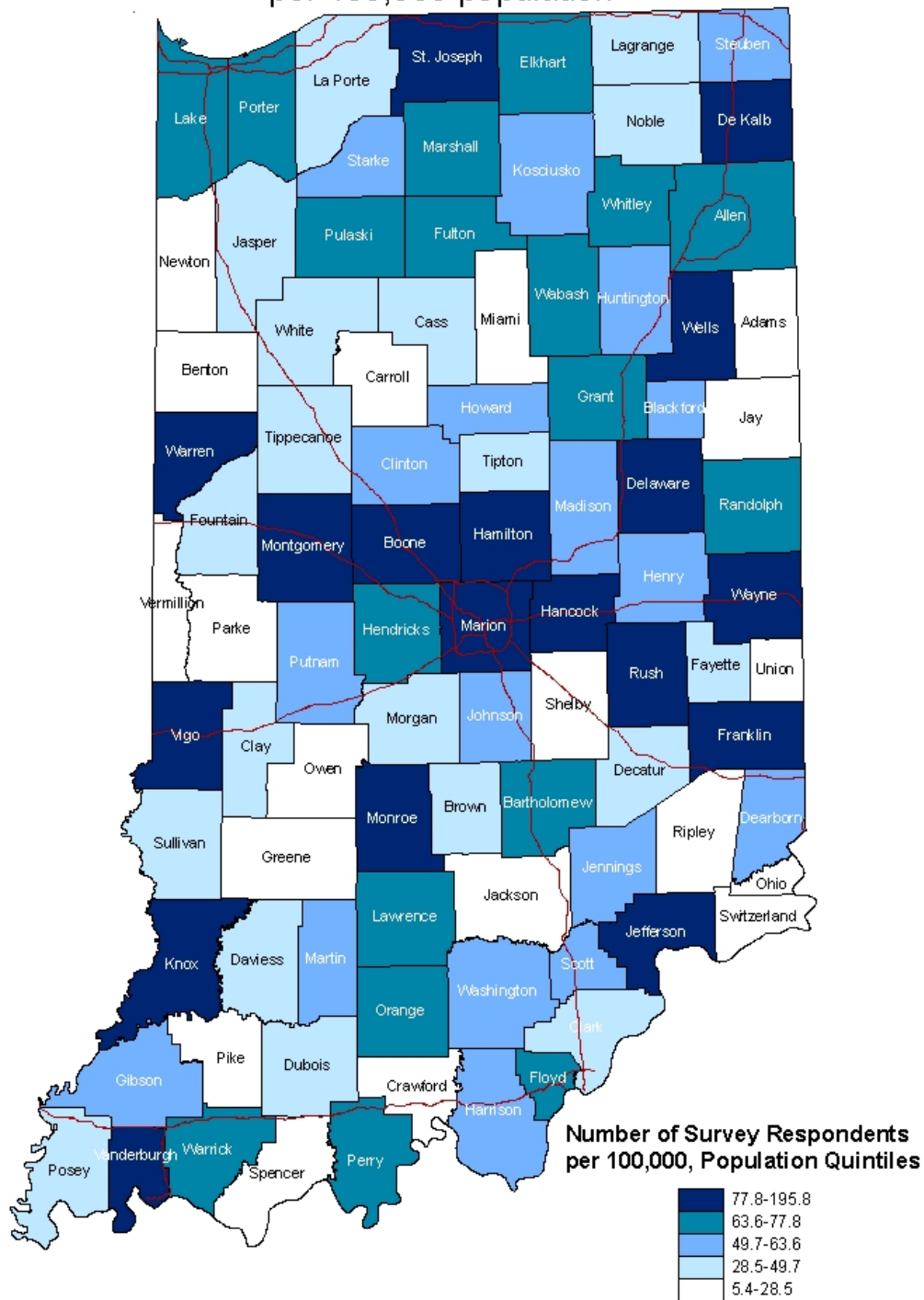
To make the data shown in the maps representative of the actual physician population in each county, the number of physicians in each county were adjusted (weighted) for the specific response rate for the 2007 survey. Thus, the counts of physicians are *estimates* of the actual number of physicians in each county, not the number of respondents in each county.



Map 4.1 shows that the number of primary care respondents in Indiana counties is distributed roughly by population. As expected, the counties with the largest populations have the greatest number of primary care physicians. These counties include Allen (Ft Wayne), Boone (Zionsville), Delaware (Muncie), Elkhart (Elkhart), Hamilton (Carmel), Hendricks (Avon), Johnson (Greenwood), Lake (Gary), Madison (Anderson), Marion (Indianapolis), Monroe (Bloomington), Porter (Valparaiso), St Joseph (South Bend), Tippecanoe (Lafayette), Vanderburgh (Evansville) and Vigo (Terre Haute).

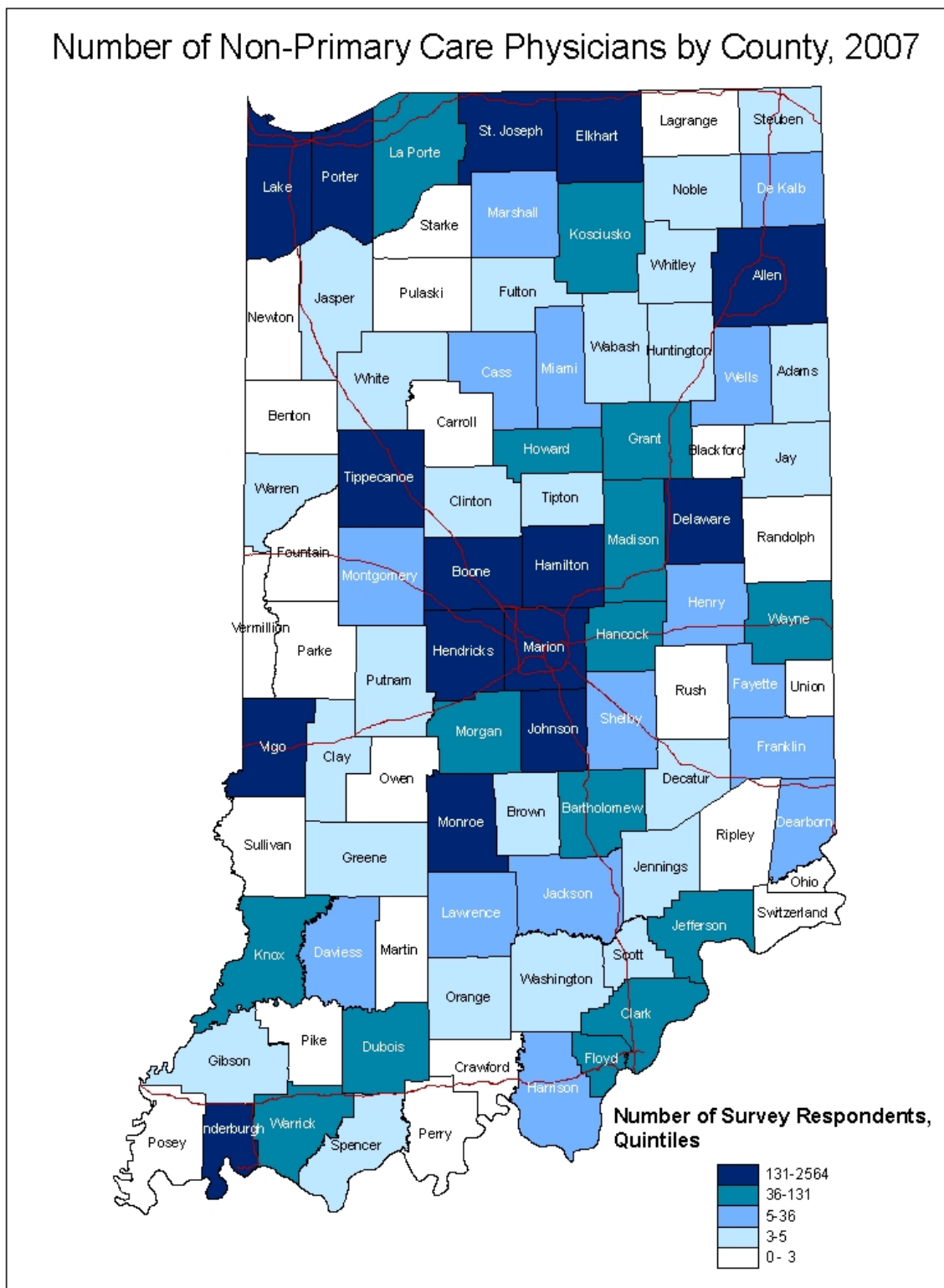


## 2007 Number of Primary Care Physicians by County per 100,000 population



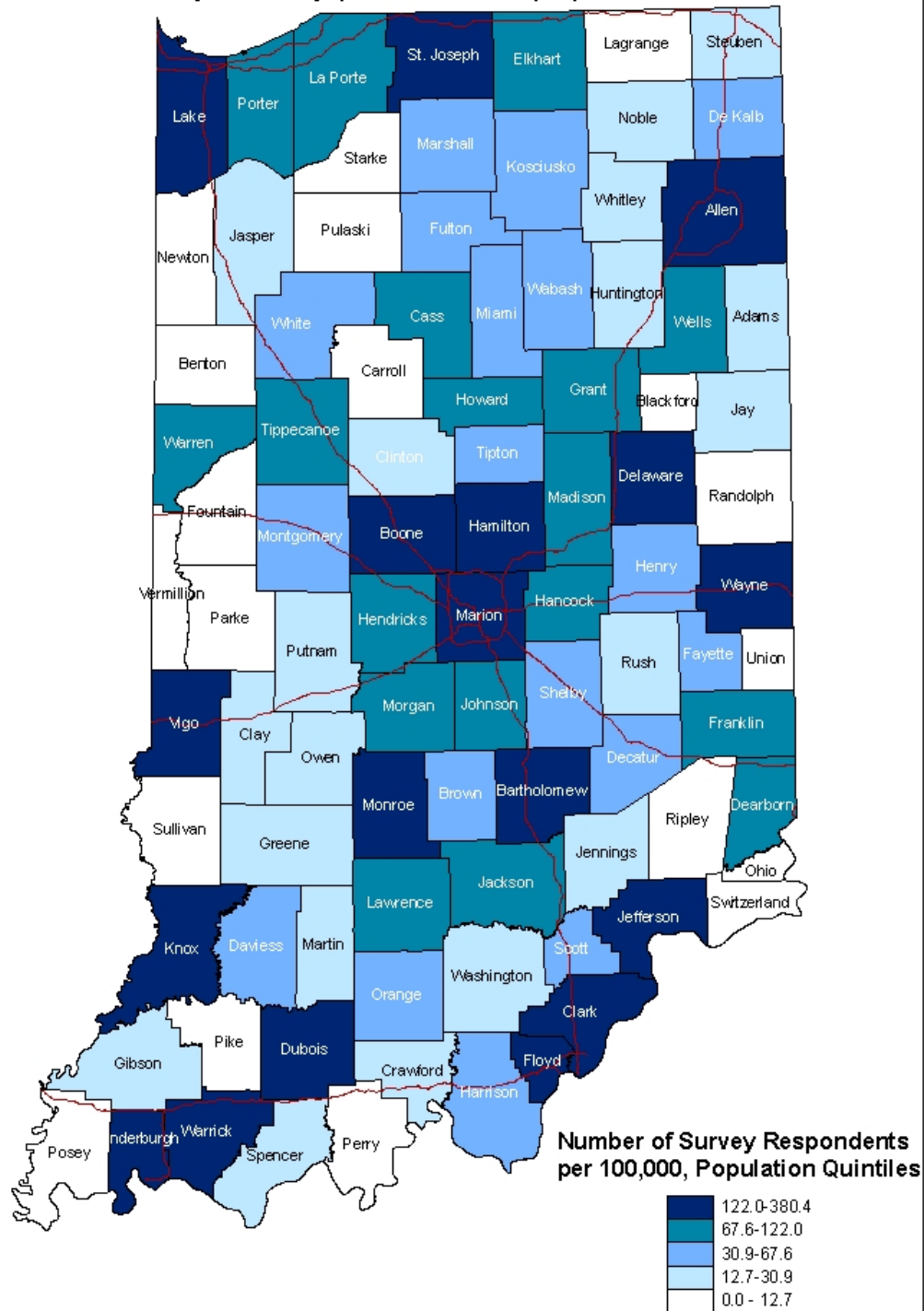
Map 4.2 shows an estimate of the total number of primary care physicians per 100,000 population by county in Indiana. Ratios of primary care physicians were higher in the metropolitan counties including Boone (Zionsville), DeKalb (Waterloo), Delaware (Muncie), Franklin (Brookeville), Hamilton (Carmel), Hancock (Greenfield), Jefferson (Madison), Knox (Vincennes), Marion (Indianapolis), Montgomery (Crawfordsville), Monroe (Bloomington), Rush (Rushville), St Joseph (South Bend), Vanderburgh (Evansville), Vigo (Terre Haute), Wayne (Richmond), Warren (Williamsport), and Wells (Bluffton).

## Number of Non-Primary Care Physicians by County, 2007



Map 4.3 shows that the urban counties with the largest populations have the greatest number of non-primary care physicians. The counties include Allen (Ft Wayne), Boone (Zionsville), Delaware (Muncie), Elkhart (Elkhart), Hamilton (Carmel), Hendricks (Avon), Johnson (Greenwood), Lake (Gary), Marion (Indianapolis), Monroe (Bloomington), Porter (Valparaiso), St Joseph (South Bend), Tippecanoe (Lafayette), Vanderburgh (Evansville) and Vigo (Terre Haute).

## 2007 Number of Non-Primary Care Physicians by County per 100,000 population



Map 4.4 shows an estimate of the total number of non-primary care physicians per 100,000 population by county in Indiana. Ratios of non-primary care physicians were higher in Allen (Ft. Wayne), Bartholomew (Columbus), Boone (Zionsville), Clark (Charlestown), Delaware (Muncie), Dubois (Jasper), Floyd (New Albany), Hamilton (Carmel), Jefferson (Madison), Knox (Vincennes), Lake (Gary), Marion (Indianapolis), Monroe (Bloomington), St. Joseph (South Bend), Vanderburgh (Evansville), Vigo (Terre Haute), Warrick (Booneville) and Wayne (Richmond) county.

## Chapter 5: Trends in the Physician Workforce

Trends based on the five Indiana physician surveys during the 1997, 2001, 2003, 2005 and 2007 re-licensure periods are shown in this chapter. Trend lines have been shown in each figure to provide an understanding of the changing supply of physicians. To make the data comparable among surveys, they were adjusted (weighted) for the specific response rates for each year of the surveys. The weighting also provides the estimates of the actual number of physicians practicing in Indiana each year, not the number of respondents.

Trends shown represent the age demographics and the primary care and non-primary care physicians. In addition, trends representing the physician's current work status in medicine, activity in which they spend most of their professional time, average hours per week that they work in these activities, those that perform obstetrics, prenatal care and intensivist medicine are shown below.

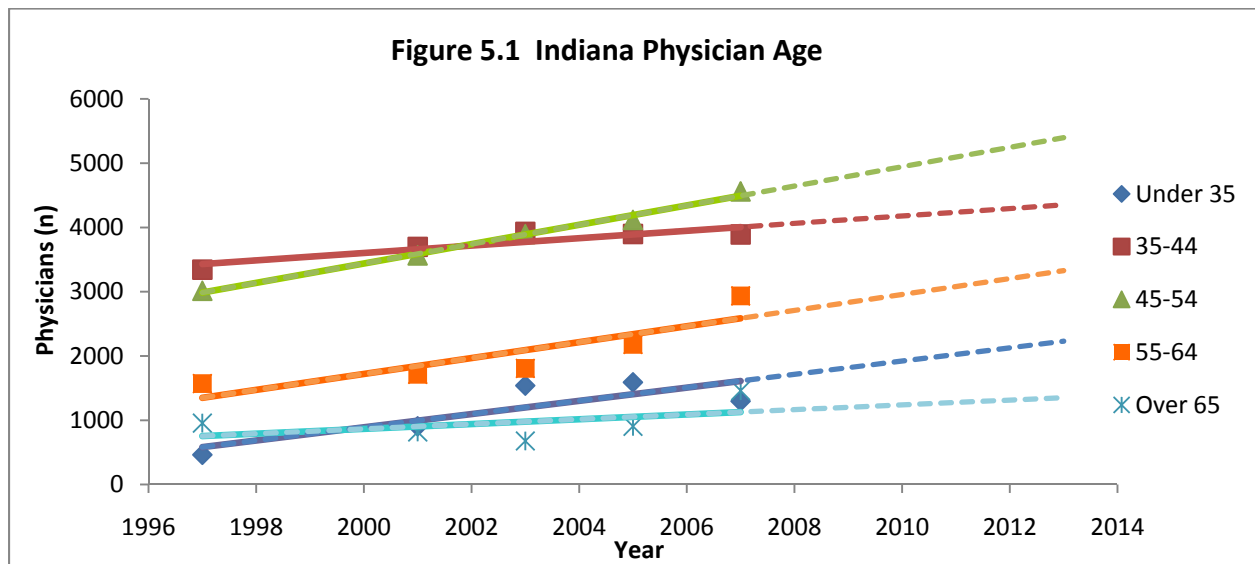


Figure 5.1 shows a growth in the number of physicians in the less than 35 and 45-64 year age group while there is less growth among those in the 35-44 age group.

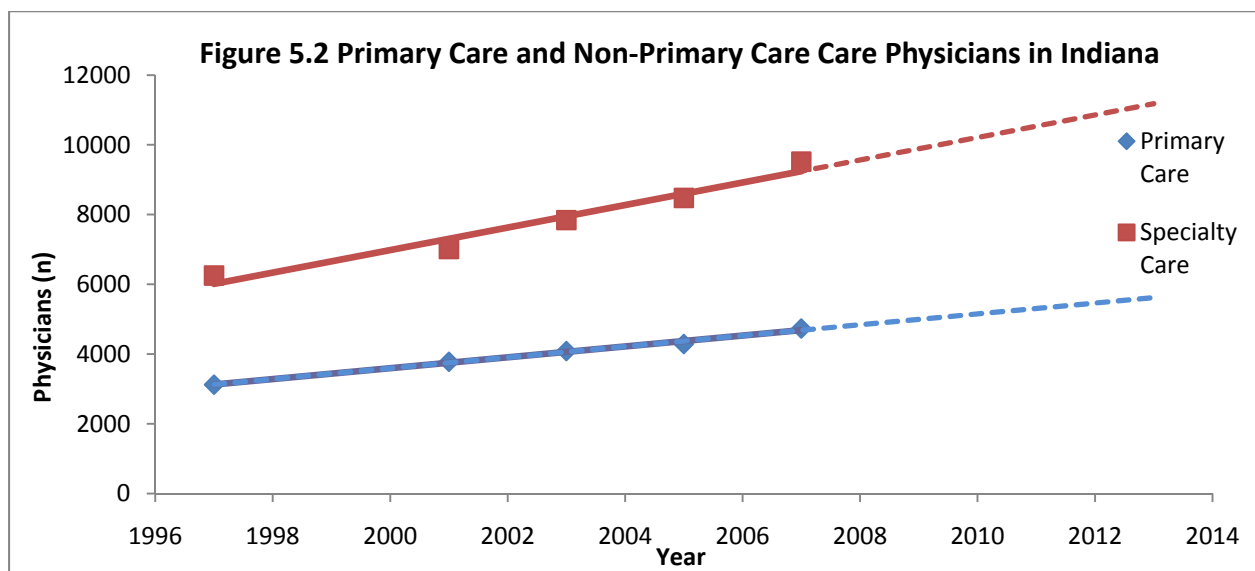
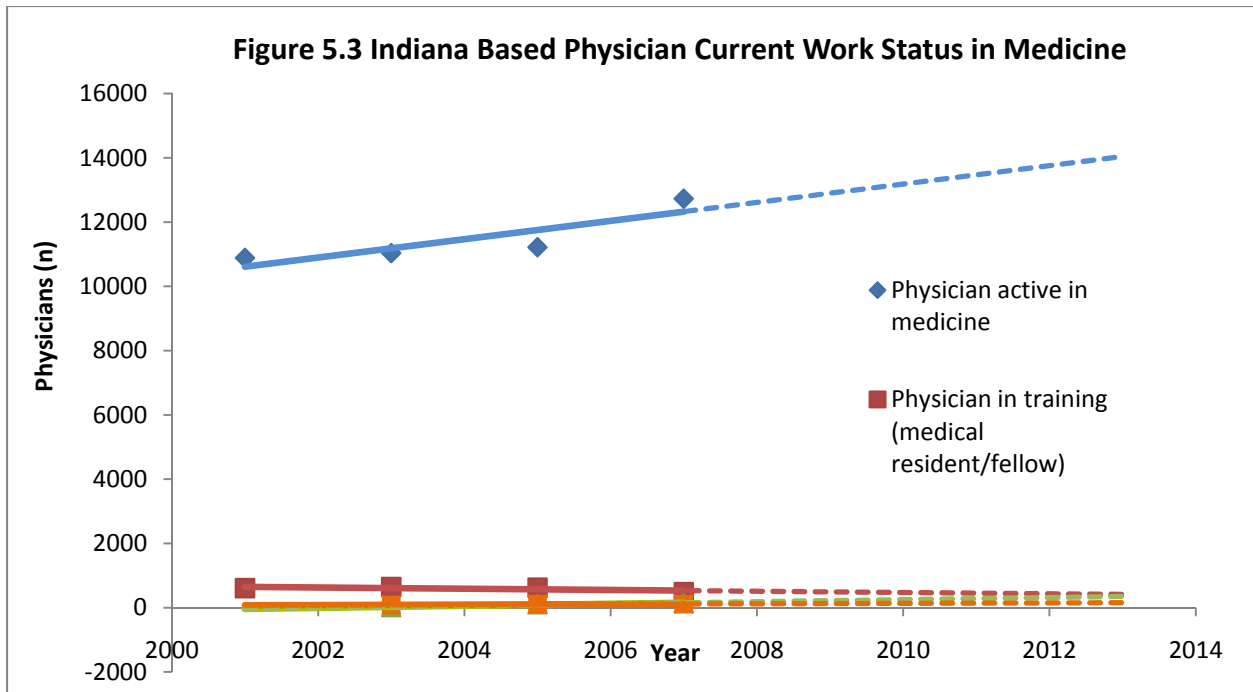


Figure 5.2 shows that there has been a steady growth in the number of both non-primary care physicians and primary care physicians over time; however, the growth is greater among the non-primary care physician group.



As shown in Figure 5.3, there has been an increase in the number of physicians who are active in medicine. However, there appears to be a decline in the number of residents and fellows in training.

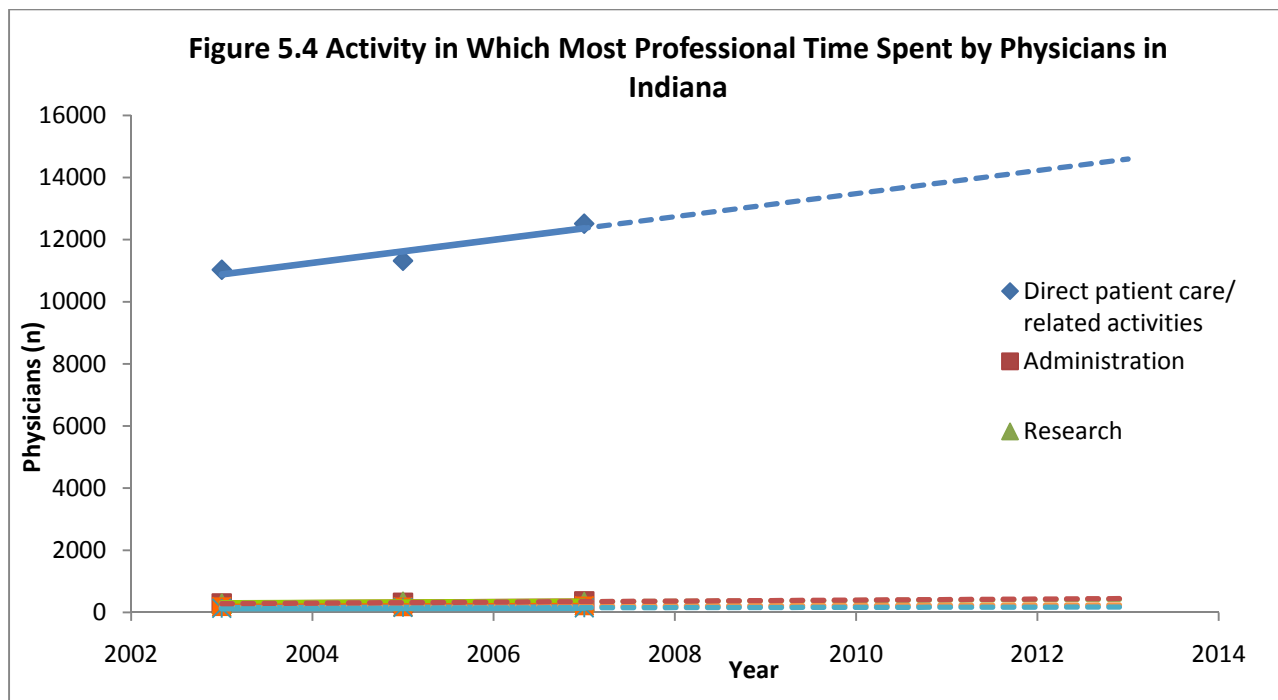


Figure 5.4 show that there has been an increasing trend showing the majority of the physicians spending their professional time in “direct patient care related activities.”

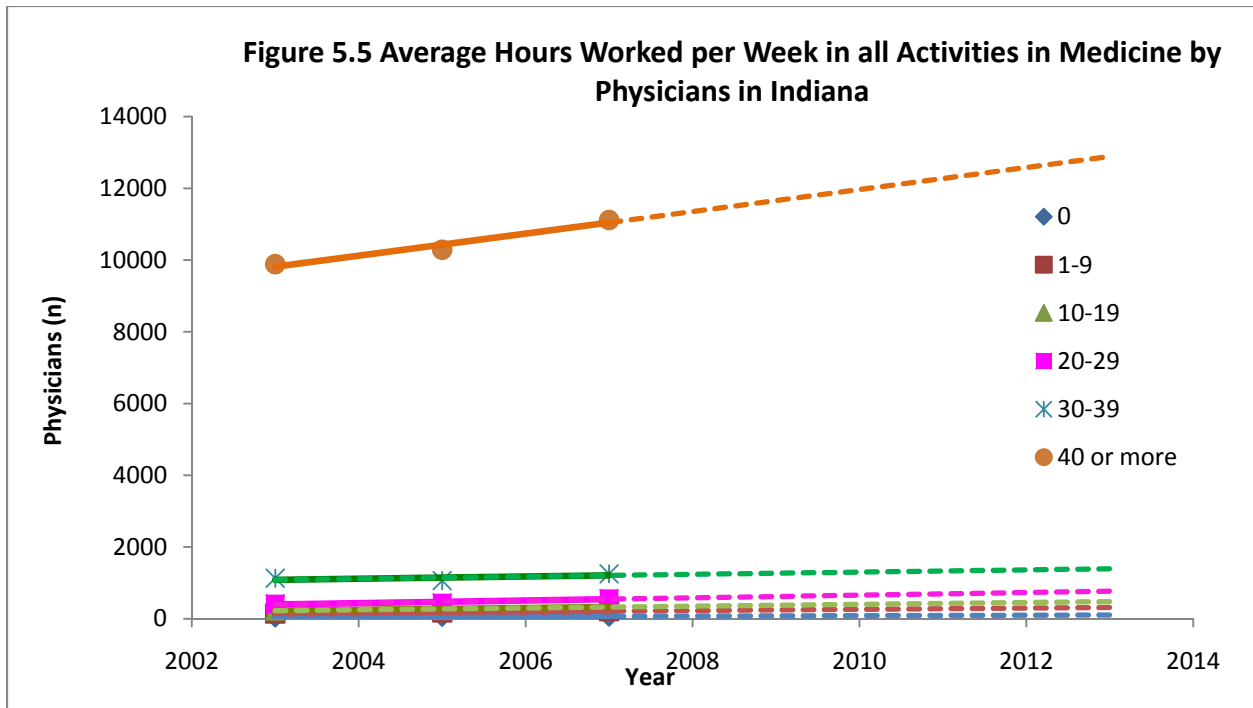


Figure 5.5 shows there have been an increase in the number of physicians who worked full time (i.e., 40 hours or more).

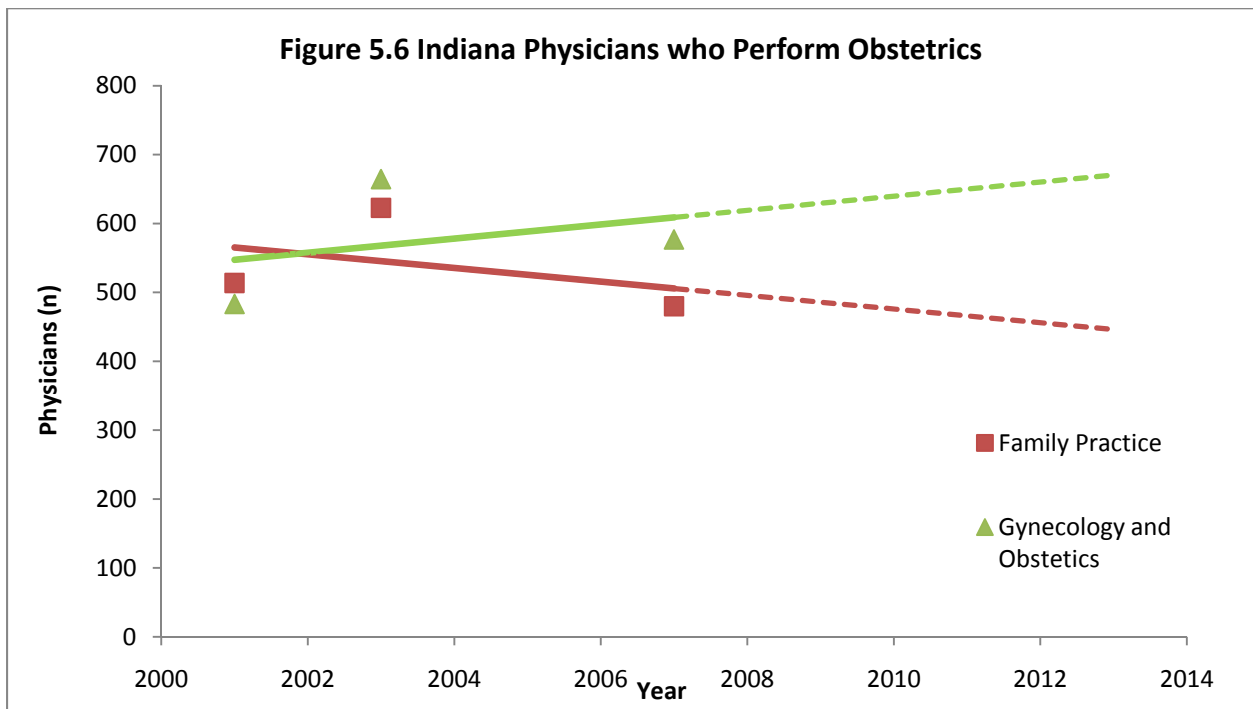


Figure 5.6 shows that there has been a decline among family physicians performing obstetrical services; while there has been an increase in the number of obstetricians who provide obstetrical services.

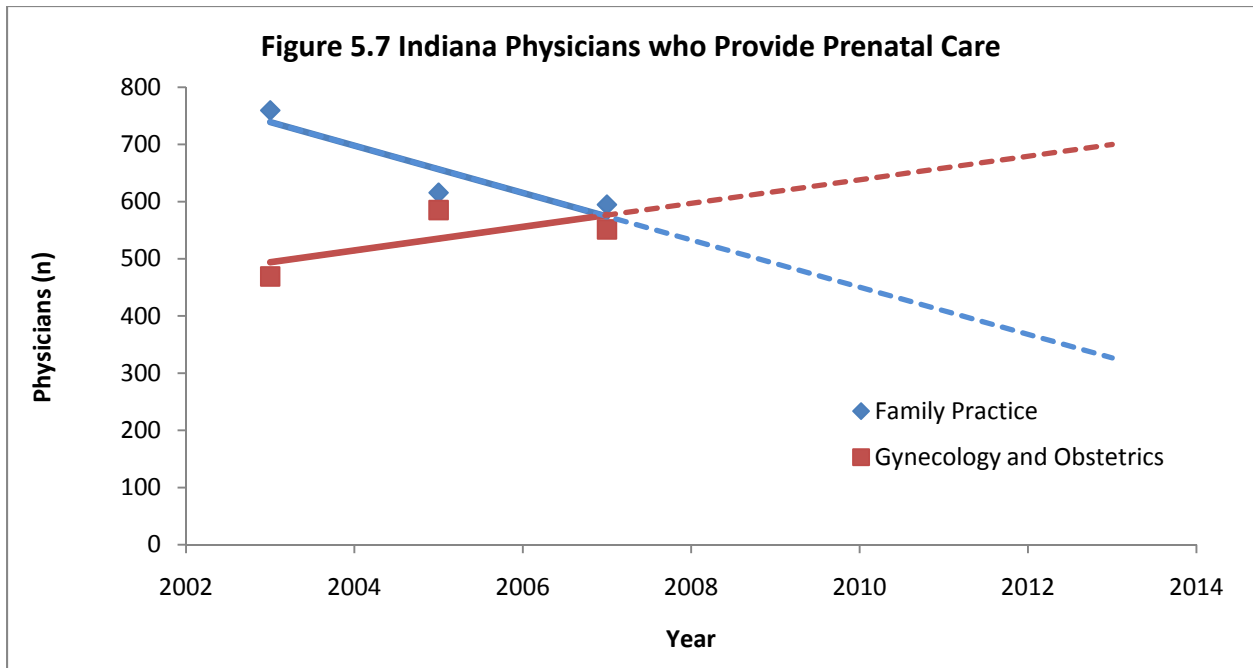
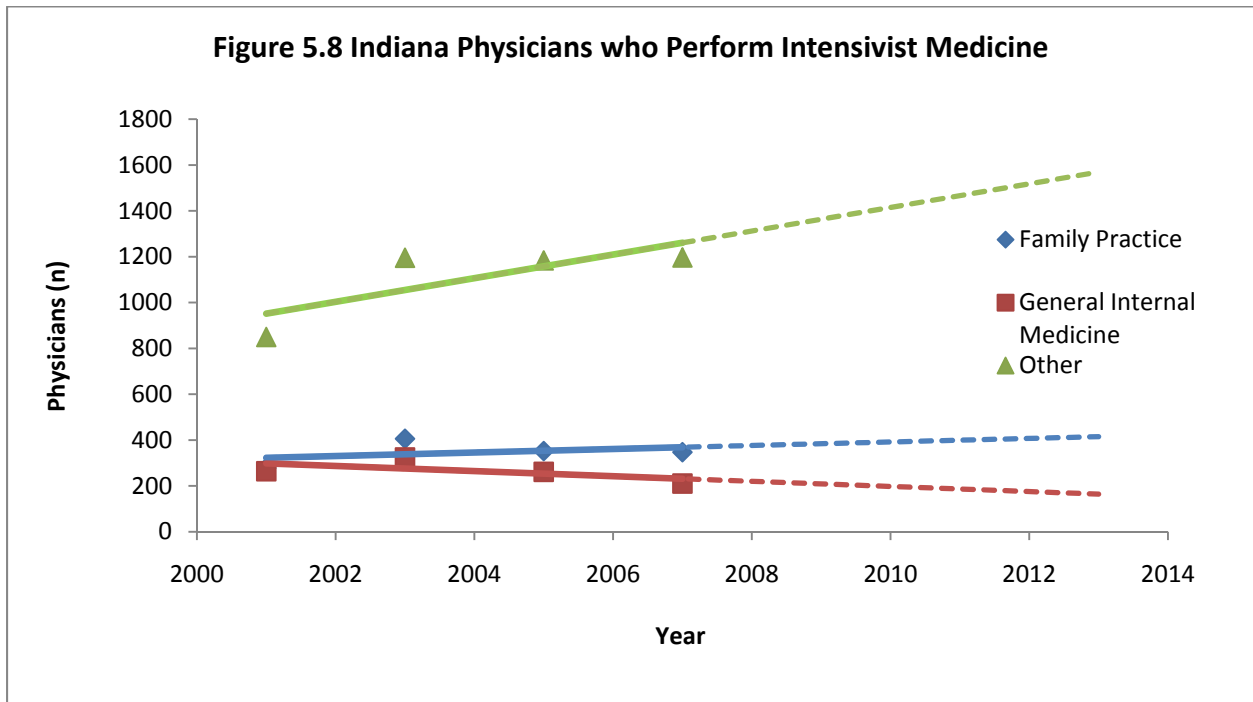


Figure 5.7 shows there has been a decline among family physicians providing prenatal care, but an increase in the number of obstetricians providing this service.



There has been a decline among general internists and family physicians performing intensivist medicine, as shown in Figure 5.8.

## Chapter 6: Conclusions

In the past decade, there has been an increase in the number of physicians renewing their Indiana license. Since 2003, physicians were given the option to renew their license electronically. Out of a total of 21,060 licenses that were renewed in 2003, almost three-fourths renewed electronically. In 2005, a total of 22,351 physicians renewed their licenses, of whom almost three-fifths renewed electronically and the remaining two-fifths renewed via mail. In 2007, a total of 25,353 physicians renewed their Indiana licenses. Of whom, 20,042 renewed their license electronically.

In 2007, majority of the respondents held Doctor of Medicine (MD) degrees. Two-thirds of the respondents were non-primary care physicians. Most of the respondents indicated that they were actively practicing medicine. Nearly three-fifths of the respondents were licensed and practiced in Indiana. Over one-tenth indicated that they practiced in neighboring states: Illinois, Kentucky, Michigan, and Ohio.

Data for 2007 shows, of the physicians practicing in Indiana, about three-fifths were 45 or older. The majority of the physicians were White, non Hispanic males. The majority of the respondents indicated they spent most of their professional time in “direct patient care related” activities. About eight percent of the respondents spent their time in research, administration or teaching activities. The top three specialties included family medicine/general practice, general internal medicine and anesthesiology. More than four-fifths responded they worked 40 or more hours per week. Over four-fifths of the physicians who indicated they performed obstetrics and provided prenatal services were family physicians or obstetricians. One-third of the physicians who indicated they performed intensivist medicine were family physicians or general internists.

In 2007, over one-third of primary care physicians and over one-fourth of non-primary care physicians were under the age of 40. While one-half of primary care physicians and over three-fifth of non-primary care physicians were between 41-60 years of age. A trend toward an increase in working part time (i.e., 20 hours or less) was noted among both, the primary care and non-primary care physicians. There was a steady decline in the primary care residents and fellows over the survey years.

The urban counties had the greatest number of non-primary care physicians per 100,000 residents, according to the 2007 data. Primary care was also more prevalent in the larger population areas. Family physicians were the most evenly distributed specialty per population over the entire state.

There is an increasing trend of the total number of physicians renewing their license in Indiana over the past decade. Those in the 45-64 age groups showed a growing trend. There is an increasing trend among both primary care and non-primary care physicians, with the latter group showing a more steady growth. The majority of the physicians were active in medicine spending their professional time in “direct patient care related activities.” An increasing trend was seen among those working 40 hours or more. There is a steady growth among obstetricians performing obstetrics and prenatal care. But a declining trend was seen among family physicians providing prenatal care and obstetrical services. Also, a declining trend was noted among general internists and family physicians performing intensivist medicine.

With input from the advisory committee, the Bowen Research Center team has recommended some changes to the survey instrument to improve the quality of the data and to improve comparability with other surveys (*Appendix 2*). In addition, it is recommended that in the future all physicians be encouraged to complete the survey as part of their licensing renewal process.



## APPENDIX 1: Indiana Physician Survey Instruments

### Appendix 1A: 2003 Indiana Physician Survey

The following questions will help the Indiana State Department of Health identify health professional shortages and geographic shortage areas. Your response is entirely voluntary and will not affect the status of your license. Thank you very much for your help.

1. What is your current work status in medicine? **Please select only one.**  
Physician active in medicine  
Physician in training (medical resident/fellow)  
Physician active in medicine, locum tenens ONLY  
Physician active in medicine, federally-employed  
Retired from active medical practice  
Temporarily inactive in medicine
2. What is the 5-digit zip code of your principal practice location? (If you are retired, temporarily inactive, or locum tenens only, please do not answer this question and proceed to questions 10 and 11.) Text box.
3. What is your major specialty? **Please select only one.**  
See attached list, which will be either a pull-down menu or a button page.
4. In which activity do you spend most of your time? **Please select only one.**  
Direct patient care or patient-care-related activities  
Administration  
Teaching  
Research  
Other
5. How many hours per week on average do you spend in ALL activities in medicine? **Please select only one.**  
0  
1-9  
10-19  
20-29  
30-39  
40 or more
6. Do you perform obstetrics? Yes No
7. Do you provide prenatal care? Yes No
8. Do you perform intensivist medicine? Yes No
9. Do you deliver any type of medical service using telemedicine (for example, telehome health care, telepsychiatry, teleradiology, telecardiology, teledermatology, or telepathology)? Yes No
10. Would you like to receive information on the Indiana Medical Reserve Corps? If you answer "Yes," we may contact you using your HPB address information. Yes No

11. Would you be willing to provide services in case of a bio-terrorism event or other public health emergency? If you answer “Yes,” we may contact you using your HPB address information. Yes No

**2003 Specialty List**

Addiction Medicine  
Adolescent Medicine  
Allergy & Immunology  
Allergy & Immunology-Clinical and Laboratory Immunology  
Alternative Medicine  
Anesthesiology  
Anesthesiology-Critical Care  
Anesthesiology-Pain Management or Pain Medicine  
Anesthesiology-Pediatric  
Cardiology  
Cardiovascular Disease  
Clinical Immunology  
Clinical & Laboratory Immunology  
Critical Care Medicine  
Dermatology  
Dermatology-Clinical & Laboratory Dermatological Immunology  
Dermatology-Dermatopathology  
Emergency Medicine  
Emergency Medicine-Medical Toxicology  
Endocrinology  
Endocrinology, Diabetes & Metabolism  
Family Practice  
Gastroenterology  
General Internal Medicine  
General Practice  
Geriatrics  
Gynecology  
Gynecological Oncology  
Hematology  
Hematology/Oncology  
Hepatology  
Immunology  
Infectious Diseases  
Internal Medicine-General  
Internal Medicine/Pediatrics  
Maternal & Fetal Medicine  
Medical Genetics  
Medical Toxicology  
Neonatal-Perinatal Medicine  
Nephrology  
Nuclear Medicine  
Obstetrics & Gynecology  
Obstetrics

Occupational Medicine  
Oncology  
Ophthalmology  
Ophthalmology-Pediatric  
Otolaryngology  
Otolaryngology-Pediatric  
Otology  
Neurology  
Neurology-Child Neurology  
Neurology-Clinical Neurophysiology  
Palliative Medicine  
Pathology-Anatomic Pathology  
Pathology-Anatomic/Clinical Pathology  
Pathology-Bloodbanking Pathology  
Pathology-Chemical Pathology  
Pathology-Clinical Pathology  
Pathology-Cytopathology  
Pathology-Dermatopathology  
Pathology-Forensic Pathology  
Pathology-Hematology  
Pathology-Immunopathology  
Pathology-Medical Microbiology  
Pathology-Neuropathology  
Pathology-Pediatric Pathology  
Pathology-Radioisotopic Pathology  
Pathology-Other  
Pediatrics-Adolescent Medicine  
Pediatrics-General Pediatrics  
Pediatrics-Pediatric Cardiology  
Pediatrics-Pediatric Clinical and Laboratory Immunology  
Pediatrics-Pediatric Critical Care Medicine  
Pediatrics-Pediatric Emergency Medicine  
Pediatrics-Pediatric Endocrinology  
Pediatrics-Pediatric Gastroenterology  
Pediatrics-Pediatric Hematology/Oncology  
Pediatrics-Pediatric Infectious Disease  
Pediatrics-Pediatric Medical Toxicology  
Pediatrics-Pediatric Nephrology  
Pediatrics-Pediatric Neurodevelopmental Disabilities  
Pediatrics-Neonatal-Perinatal Medicine  
Pediatrics-Pediatric Pulmonology  
Pediatrics-Pediatric Rheumatology  
Pediatrics-Pediatric Sports Medicine  
Physical Medicine & Rehabilitation  
Plastic Surgery  
Psychiatry  
Psychiatry-Addictions  
Psychiatry-Child & Adolescent  
Psychiatry-Geriatric

Public Health  
Pulmonary Critical Care Medicine  
Pulmonary Diseases  
Pulmonology  
Radiation Oncology  
Radiology  
Radiology-Diagnostic Radiology  
Radiology-Nuclear  
Radiology-Pediatric  
Radiology-Neuroradiology  
Radiology-Radiological Physics  
Radiology-Vascular and Interventional Radiology  
Rheumatology  
Sports Medicine  
Surgery-Critical Care  
Surgery-Cardiothoracic  
Surgery-Cardiovascular  
Surgery-Colon & Rectal  
Surgery-General  
Surgery-Hand  
Surgery-Head and Neck  
Surgery-Neurological  
Surgery-Orthopedic  
Surgery-Pediatric  
Surgery-Pediatric Cardiothoracic  
Surgery-Pediatric Neurological  
Surgery-Pediatric Orthopedic  
Surgery-Plastic  
Surgery-Trauma  
Surgery-Vascular  
Surgery-Other Surgical Subspecialty  
Urology  
Urology-Pediatric  
Other Specialty

## Appendix 1B: 2005 Indiana Physician Survey

Your answers to these questions will help the Indiana State Department of Health to respond to emergencies and to identify health professional shortages and geographic shortage areas. The survey is voluntary and will not affect the status of your license. Thank you very much for your help.

1. What is your current work status in medicine? **Please select only one.**

DROP-DOWN LIST

- Physician active in medicine
- Physician in training (medical resident/fellow)
- Physician active in medicine, locum tenens ONLY
- Physician active in medicine, federally-employed
- Retired from active medical practice
- Temporarily inactive in medicine

2. Please type the 5-digit zip code of your principal practice location in the box next to this questions (the location at which you spend the most time). If you are retired or temporarily inactive, please put the zip code of your residence.

TEXT BOX

3. What is your major specialty? Please select only one. IF YOU ARE RETIRED OR TEMPORARILY INACTIVE, please select the specialty in which you are most experienced.

DROP-DOWN LIST-SEE ATTACHED LIST

4. In which professional activity do you spend most of your time? Please select only one. IF YOU ARE RETIRED OR TEMPORARILY INACTIVE, please skip to Questions 11-19.

DROP-DOWN LIST

- Direct patient care or patient-care-related activities
- Administration
- Teaching
- Research
- Other

5. How many hours per week on average do you spend in ALL activities in medicine? **Please select only one.**

DROP-DOWN LIST

- 0
- 1-9
- 10-19
- 20-29
- 30-39
- 40 or more

6. Which age patients do you most frequently work with? **Please select ALL that apply.**

DROP-DOWN LIST

- Infants (0-4)
- Children (5-9)
- Adolescents (10-14)
- Youth (15-19)
- Adults (20-64)
- Elders (65 and older)
- I do not provide direct patient care services.

7. Do you perform obstetrics? Yes No
8. Do you provide prenatal care? Yes No
9. Do you perform intensivist medicine? Yes No

10. How much of your patient practice time do you spend in Indiana? **Please select only one.**

DROP-DOWN LIST

Less than 20 percent

20-29 percent

30-39 percent

40-49 percent

50-59 percent

60-69 percent

70-79 percent

80-89 percent

90-100 percent

I do not provide direct patient care services.

11. Would you be willing to provide services in case of a bio-terrorism event or other public health emergency?  
If you answer "Yes," we may contact you using your HPB address information.

Yes No

12. Would you be willing to attend specialized training in disaster-related medical care delivery?

Yes No

13. Are you fluent in Spanish? Yes No

14. Are you fluent in any Asian languages? Yes No

15. Which medical school did you GRADUATE from? **Please select only one.**

DROP-DOWN LIST

Indiana University School of Medicine

Medical school in another U.S. state

Medical school in Canada

Medical school in another country (not U.S. or Canada)

16. Where did you do your residency and/or fellowship training? **Please select ALL that apply.**

DROP-DOWN LIST

Indiana

Other U.S. state

Canada

Other country (not U.S. or Canada)

17. Which of the following best describes your race? **Please select only one.**

DROP-DOWN LIST

White

Black/African American

Asian/Pacific Islander

American Indian/Native Alaskan

Multi-racial

Other

18. Are you of Hispanic origin?

Yes

No

19. What is your sex?

DROP-DOWN LIST

Female

Male

### **2005 Specialty List**

Addiction Medicine  
Adolescent Medicine  
Allergy & Immunology  
Allergy & Immunology-Clinical and Laboratory Immunology  
Alternative Medicine  
Anesthesiology  
Anesthesiology-Critical Care  
Anesthesiology-Pain Management or Pain Medicine  
Anesthesiology-Pediatric  
Cardiology  
Cardiovascular Disease  
Clinical Immunology  
Clinical & Laboratory Immunology  
Critical Care Medicine  
Dermatology  
Dermatology-Clinical & Laboratory Dermatological Immunology  
Dermatology-Dermatopathology  
Emergency Medicine  
Emergency Medicine-Medical Toxicology  
Endocrinology  
Endocrinology, Diabetes & Metabolism  
Family Practice  
Gastroenterology  
General Internal Medicine  
General Practice  
Geriatrics  
Gynecology  
Gynecological Oncology  
Hematology  
Hematology/Oncology  
Hepatology  
Immunology  
Infectious Diseases  
Internal Medicine-General  
Internal Medicine/Pediatrics  
Maternal & Fetal Medicine  
Medical Genetics  
Medical Toxicology  
Neonatal-Perinatal Medicine  
Nephrology  
Nuclear Medicine  
Obstetrics & Gynecology

Obstetrics  
Occupational Medicine  
Oncology  
Ophthalmology  
Ophthalmology-Pediatric  
Otolaryngology  
Otolaryngology-Pediatric  
Otology  
Neurology  
Neurology-Child Neurology  
Neurology-Clinical Neurophysiology  
Palliative Medicine  
Pathology-Anatomic Pathology  
Pathology-Anatomic/Clinical Pathology  
Pathology-Bloodbanking Pathology  
Pathology-Chemical Pathology  
Pathology-Clinical Pathology  
Pathology-Cytopathology  
Pathology-Dermatopathology  
Pathology-Forensic Pathology  
Pathology-Hematology  
Pathology-Immunopathology  
Pathology-Medical Microbiology  
Pathology-Neuropathology  
Pathology-Pediatric Pathology  
Pathology-Radioisotopic Pathology  
Pathology-Other  
Pediatrics-Adolescent Medicine  
Pediatrics-General Pediatrics  
Pediatrics-Pediatric Cardiology  
Pediatrics-Pediatric Clinical and Laboratory Immunology  
Pediatrics-Pediatric Critical Care Medicine  
Pediatrics-Pediatric Emergency Medicine  
Pediatrics-Pediatric Endocrinology  
Pediatrics-Pediatric Gastroenterology  
Pediatrics-Pediatric Hematology/Oncology  
Pediatrics-Pediatric Infectious Disease  
Pediatrics-Pediatric Medical Toxicology  
Pediatrics-Pediatric Nephrology  
Pediatrics-Pediatric Neurodevelopmental Disabilities  
Pediatrics-Neonatal-Perinatal Medicine  
Pediatrics-Pediatric Pulmonology  
Pediatrics-Pediatric Rheumatology  
Pediatrics-Pediatric Sports Medicine  
Physical Medicine & Rehabilitation  
Plastic Surgery  
Psychiatry  
Psychiatry-Addictions  
Psychiatry-Child & Adolescent  
Psychiatry-Geriatric  
Public Health  
Pulmonary Critical Care Medicine



Pulmonary Diseases  
Pulmonology  
Radiation Oncology  
Radiology  
Radiology-Diagnostic Radiology  
Radiology-Nuclear  
Radiology-Pediatric  
Radiology-Neuroradiology  
Radiology-Radiological Physics  
Radiology-Vascular and Interventional Radiology  
Rheumatology  
Sports Medicine  
Surgery-Critical Care  
Surgery-Cardiothoracic  
Surgery-Cardiovascular  
Surgery-Colon & Rectal  
Surgery-General  
Surgery-Hand  
Surgery-Head and Neck  
Surgery-Neurological  
Surgery-Orthopedic  
Surgery-Pediatric  
Surgery-Pediatric Cardiothoracic  
Surgery-Pediatric Neurological  
Surgery-Pediatric Orthopedic  
Surgery-Plastic  
Surgery-Trauma  
Surgery-Vascular  
Surgery-Other Surgical Subspecialty  
Urology  
Urology-Pediatric  
Other Specialty

## Appendix 1C: 2007 Indiana Physician Survey

Your answers to these questions will help the Indiana State Department of Health to respond to emergencies and to identify health professional shortages and geographic shortage areas. The survey is voluntary and will not affect the status of your license.

Thank you very much for your help.

1. What is your current work status in medicine? Consider yourself active in medicine if you are engaged in direct patient care, administration, teaching, or research. **Please select only one.**  
DROP-DOWN LIST  
Physician active in medicine  
Physician in training (medical resident/fellow)  
Physician active in medicine, locum tenens ONLY  
Physician active in medicine, federally-employed  
Retired from active medical practice  
Temporarily inactive in medicine
2. Please type the 5-digit zip code of your principal practice location in the box next to this question (the location at which you spend the most practice time). If you are retired or temporarily inactive, please put the zip code of your residence.  
TEXT BOX
3. What is your major specialty? **Please select only one.** IF YOU ARE RETIRED OR TEMPORARILY INACTIVE, please select the specialty in which you are most experienced.  
DROP-DOWN LIST—SEE ATTACHED LIST
4. In which professional activity do you spend most of your time? **Please select only one.** IF YOU ARE RETIRED OR TEMPORARILY INACTIVE, please skip to Questions 11-16.  
DROP-DOWN LIST  
Direct patient care or patient-care-related activities  
Administration  
Teaching  
Research  
Other
5. How many hours per week on average do you spend in ALL activities in medicine? **Please select only one.**  
DROP-DOWN LIST  
0  
1-9  
10-19  
20-29  
30-39  
40 or more
6. Do you perform obstetrics?  
DROP-DOWN LIST  
Yes No
7. Do you provide prenatal care?  
DROP-DOWN LIST

Yes No

8. Do you perform intensivist medicine?

DROP-DOWN LIST

Yes No

9. Which age patients do you most frequently work with? **Please select ALL that apply.**

DROP-DOWN LIST

Infants (0-4)

Children (5-9)

Adolescents (10-14)

Youth (15-19)

Adults (20-64)

Elders (65 and older)

I do not provide direct patient care services.

10. How much of your patient practice time do you spend in Indiana? **Please select only one.**

DROP-DOWN LIST

I do not provide direct patient care services.

Less than 20 percent

20-29 percent

30-39 percent

40-49 percent

50-59 percent

60-69 percent

70-79 percent

80-89 percent

90-100 percent

11. Would you be willing to provide services in case of a bio-terrorism event or other public health emergency? If you answer "Yes," we may contact you using your PLA contact information.

DROP-DOWN LIST

Yes No

12. Would you be willing to attend specialized training in disaster-related medical care delivery?

DROP-DOWN LIST

Yes No

13. Are you fluent in any of the following languages? **PLEASE SELECT ALL THAT APPLY. SELECT ALL THAT APPLY LIST, WITH TEXT BOX**

African languages

Arabic

Cambodian

Chinese

Filipino

French

German

Greek

Hindi

Italian

Japanese

Korean  
Pennsylvania Dutch  
Polish  
Russian  
Sign language  
Spanish  
Thai  
Turkish  
Vietnamese

14. If you are fluent in any other language(s) besides those listed above, please enter the language(s) in the box provided: TEXT BOX
15. Do you have the following type(s) of medical experience? **Please select ALL that apply.**  
SELECT ALL THAT APPLY LIST  
Military medical experience  
Disaster medical experience
16. Where did you do your residency and/or fellowship training? **Please select ALL that apply.**  
SELECT ALL THAT APPLY LIST  
Indiana  
Other U.S. state  
Canada  
Other country (not U.S. or Canada)
17. If you are actively practicing medicine, do you deliver any type of medical service using telemedicine (for example, telehome health care, telepsychiatry, teleradiology, telecardiology, teledermatology, or telepathology)?  
DROP-DOWN LIST  
Yes No

### **2007 Specialty List**

#### **Specialty Name**

Addiction Medicine (ADM)  
Adolescent Medicine (AMI)  
Aerospace Medicine (AM)  
Allergy (A)  
Allergy & Immunology (AI)  
Allergy & Immunology-Diagnostic Laboratory Immunology (ALI)  
Alternative Medicine (ALTM)  
Anesthesiology (AN)  
Anesthesiology-Critical Care (CCA)  
Anesthesiology-Pain Management (APM)  
Anesthesiology-Pediatric (PAN)  
Cardiology-Cardiovascular Disease (CD)  
Cardiology-Cardiac Electrophysiology (ICE)  
Cardiology-Interventional Cardiology (IC)  
Cardiology-Nuclear Cardiology (NC)  
Critical Care Medicine (CCM)  
Dermatology (D)  
Dermatology-Clinical and Laboratory Dermatological Immunology (DDL)

Dermatology-Dermatological Immunology/Diagnostic and Laboratory Immunology (DLAB)  
Dermatology-Dermatopathology (DMP)  
Dermatology-Pediatric Dermatology (PDD)  
Dermatology-Procedural Dermatology (PRD)  
Diabetes (DIA)  
Emergency Medicine (EM)  
Emergency Medicine-Medical Toxicology (ETX)  
Emergency Medicine-Pediatric Emergency Medicine (PE)  
Emergency Medicine-Sports Medicine (ESM)  
Endocrinology, Diabetes and Metabolism (END)  
Epidemiology (EP)  
Family Practice/Family Medicine (FM)  
Family Practice-Adolescent Medicine (AMF)  
Family Practice-Geriatric Medicine (FPG)  
Family Practice-Sports Medicine (FSM)  
Gastroenterology (GE)  
General Internal Medicine (IM)  
General Practice (GP)  
General Preventive Medicine (GPM)  
Genetics-Clinical Biochemical Genetics (CBG)  
Genetics-Clinical Cytogenetics (CCG)  
Genetics-Clinical Genetics (CG)  
Genetics-Clinical Molecular Genetics (CMG)  
Genetics-Medical Genetics (MG)  
Genetics-Molecular Genetic Pathology (MGG)  
Geriatrics (GERI)  
Gynecological Oncology (GO)  
Gynecology (GYN)  
Hematology (HEM)  
Hematology/Oncology (HO)  
Hepatology (HEP)  
Hospitalist (HOS)  
Immunology (IG)  
Infectious Diseases (ID)  
Internal Medicine-General Internal Medicine (IM)  
Internal Medicine-Cardiac Electrophysiology (ICE)  
Internal Medicine-Diagnostic Laboratory Immunology (ILI)  
Internal Medicine-Geriatrics (IMG)  
Internal Medicine-Pediatrics (MPD)  
Internal Medicine-Sports Medicine (ISM)  
Legal Medicine (LM)  
Maternal & Fetal Medicine (MFM)  
Medical Informatics  
Medical Management (MDM)  
Medical Microbiology (MM)  
Neonatal-Perinatal Medicine (NPM)  
Nephrology (NEP)

Nephrology-Pediatric Nephrology (PN)  
Neurology (N)  
Neurology-Child Neurology (CHN)  
Neurology-Clinical Neurophysiology (CN)  
Neurology-Neurodevelopmental Disabilities (NDN)  
Neurology-Neurology/Diagnostic Radiology/Neuroradiology (NRN)  
Neurology-Neuromuscular Medicine  
Neurology-Neuropsychiatry (NUP)  
Neurology-Neuroradiology (RNR)  
Neurology-Vascular Neurology (VN)  
Neuroradiology-Endovascular Surgical (ESN)  
Nuclear Medicine (NM)  
Nuclear Radiology (NR)  
Nutrition (NTR)  
Obstetrics & Gynecology (OBG)  
Obstetrics & Gynecology-Critical Care (OCC)  
Obstetrics (OBS)  
Occupational Medicine (OM)  
Oncology (ON)  
Ophthalmology (OPH)  
Ophthalmology-Pediatric Ophthalmology (PO)  
Orthopedic Surgery (ORS)  
Orthopedic Surgery-Foot and Ankle (OFA)  
Orthopedic Surgery-Hand Surgery (HSO)  
Orthopedic Surgery-Orthopedic Musculoskeletal Oncology (OMO)  
Orthopedic Surgery-Orthopedic Adult Reconstructive Surgery (OAR)  
Orthopedic Surgery-Pediatric Orthopedic Surgery (OP)  
Orthopedic Surgery-Sports Medicine (OSM)  
Orthopedic Surgery-Surgery of the Spine (OSS)  
Orthopedic Surgery-Trauma (OTR)  
Osteopathic Manipulative Medicine (OMM)  
Otolaryngology (OTO)  
Otolaryngology-Pediatric Otolaryngology (PDO)  
Otology-Neurotology (NO)  
Pain Medicine (PMD)  
Palliative Medicine (PLM)  
Pathology-Anatomic Pathology (ATP)  
Pathology-Anatomic/Clinical Pathology (PTH)  
Pathology-Bloodbanking (BBK)  
Pathology-Chemical Pathology (PCH)  
Pathology-Clinical Pathology (CLP)  
Pathology-Cytopathology (PCP)  
Pathology-Forensic Pathology (FOP)  
Pathology-Hematology (HMP)  
Pathology-Medical Microbiology  
Pathology-Molecular Genetic Pathology (MGP)  
Pathology-Neuropathology (NP)  
Pathology-Pediatric Pathology (PP)

Pathology-Selective Pathology (SP)  
Pediatrics-General Pediatrics (PD)  
Pediatrics-Adolescent Medicine (ADL)  
Pediatrics-Critical Care (CCP)  
Pediatrics-Developmental Behavioral Pediatrics (DBP)  
Pediatrics-Neonatal-Perinatal Medicine (NPM)  
Pediatrics-Neurodevelopmental Disabilities (NDP)  
Pediatrics-Pediatric Allergy (PDA)  
Pediatrics-Pediatric Cardiology (PDC)  
Pediatrics-Pediatric Cardiothoracic Surgery (PCS)  
Pediatrics-Pediatric Dermatology (PDD)  
Pediatrics-Pediatric Diagnostic Laboratory Immunology (PLI)  
Pediatrics-Pediatric Emergency Medicine (PEM)  
Pediatrics-Pediatric Endocrinology (PDE)  
Pediatrics-Pediatric Gastroenterology (PG)  
Pediatrics-Pediatric Hematology/Oncology (PHO)  
Pediatrics-Pediatric Infectious Diseases (PDI)  
Pediatrics-Pediatric Medical Toxicology (PDT)  
Pediatrics-Pediatric Otolaryngology (PDO)  
Pediatrics-Pediatric Pathology (PP)  
Pediatrics-Pediatric Pulmonology (PDP)  
Pediatrics-Pediatric Radiology (PDR)  
Pediatrics-Pediatric Rehabilitation Medicine (RPM)  
Pediatrics-Pediatric Rheumatology (PPR)  
Pediatrics-Pediatric Sports Medicine (PSM)  
Pediatrics-Pediatric Surgery (PDS)  
Pharmaceutical Medicine (PHM)  
Pharmacology-Clinical Pharmacology (PA)  
Phlebology (PHL)  
Physical Medicine & Rehabilitation (PM)  
Physical Medicine and Rehabilitation-Spinal Cord Injury (SCI)  
Physical Medicine and Rehabilitation-Sports Medicine (PMM)  
Plastic Surgery (PS)  
Plastic Surgery-Facial Plastic Surgery (FPS)  
Plastic Surgery-Head & Neck (PSH)  
Preventive Medical Toxicology (PTX)  
Proctology (PRO)  
Psychiatry (P)  
Psychiatry-Addiction (ADP)  
Psychiatry-Child Psychiatry (CHP)  
Psychiatry-Forensic Psychiatry (PFP)  
Psychiatry-Geriatric Psychiatry (PYG)  
Psychiatry-Pain Medicine (PPN)  
Psychiatry-Psychoanalysis (PYA)  
Psychiatry-Psychosomatic Medicine (PYM)  
Public Health/General Preventive Medicine (PHP)  
Pulmonary Critical Care Medicine (PCC)  
Pulmonary Disease (PUD)

Radiation Oncology (RO)  
Radiology (R)  
Radiology-Abdominal Radiology (AR)  
Radiology-Cardiothoracic Radiology (CTR)  
Radiology-Diagnostic Radiology (DR)  
Radiology-Musculoskeletal Radiology(MSR)  
Radiology-Neuroradiology (RNR)  
Radiology-Neuroradiology-Endovascular Surgical (ESN)  
Radiology-Nuclear Radiology (NR)  
Radiology-Pediatric Radiology (PDR)  
Radiology-Radiological Physics (RP)  
Radiology-Vascular & Interventional Radiology (VIR)  
Reproductive Endocrinology (REN)  
Rheumatology (RHU)  
Sclerotherapeutic Pain Management (SPMO)  
Sleep Medicine (SME)  
Spinal Cord Injury Medicine (SCI)  
Surgery-Abdominal (AS)  
Surgery-Colon & Rectal (CRS)  
Surgery-Cosmetic (CS)  
Surgery-Craniofacial Surgery (CFS)  
Surgery-Critical Care (CCS)  
Surgery-Dermatologic Surgery (DS)  
Surgery-General Surgery (GS)  
Surgery-Hand Surgery (HS)  
Surgery-Head & Neck Surgery (HNS)  
Surgery-Neurological Surgery (NS)  
Surgery-Neuroradiology-Endovascular Surgical (ESN)  
Surgery-Oral And Maxillofacial Surgery (OMF)  
Surgery-Pediatric Cardiothoracic Surgery (PCS)  
Surgery-Pediatric Neurological Surgery (NSP)  
Surgery-Pediatric Orthopedic Surgery (OP)  
Surgery-Pediatric Surgery (PDS)  
Surgery-Plastic Surgery (PS)  
Surgery-Surgical Oncology (SO)  
Surgery-Thoracic Surgery (TS)  
Surgery-Transplant Surgery (TTS)  
Surgery-Traumatic Surgery (TRS)  
Surgery-Urological Surgery (U)  
Surgery-Vascular Surgery (VS)  
Undersea Medicine and Hyperbaric Medicine (UM)  
Undersea and Hyperbaric Medicine-Emergency Medicine (UME)  
Urgent Care Medicine (UCM)  
Urology (U)  
Urology-Pediatric Urology (UP)  
Vascular Medicine (VM)  
Vascular Neurology (VN)  
Other Specialty (OS)



## APPENDIX 2: Recommendations to Improve the Survey

The advisory committee met in July 2008, November 2008 and February 2009 to discuss the Indiana Physician Survey. Below is a compilation of the recommendations made for the 2009 survey instrument:

### ***Q. What is your current work status in medicine?***

Of the six choices in the drop down menu, two choices [i.e., “retired from active medical practice” or “temporarily inactive in medicine”] should be removed. Expand the “hours” in the drop down menu [i.e., 40-49, 50-59, 60 or more]. Ask the physicians if they work “part-time or full-time”? Since especially now with more women joining the physician workforce, there will be more part-timers.

### ***Q. What is your principal practice location?***

In order to get more precise location information, ask for “Practice Location address” versus just the zip code. One of the questions brought up was that should it be the “street address” or will the “name of the city [or cities] that they are practicing in” be sufficient? Currently, the “professional mailing address” is being asked on the survey. This could either be their “practice location” or “home” address. One of the concerns was that most may not even know their practice location “street” address. And some may be seeing patients at multiple locations. So, be specific in asking for the “name, street, city and state, zip code” of their five principal practice locations.

### ***Q. What is your major specialty?***

It was recommended that the major specialties be grouped using the master AMA list so that the specialty groupings would be comparable over time and with other comparable data.

### ***Q. How many hours per week on average do you spend in ALL activities in Indiana?***

Change the wording on the question, so as to include “direct patient care” and the “time involved to do paper work for the patients.” Lastly, what about when they are “on-call”?

### ***Q. Do you perform obstetrics?***

Re-word this question by being more specific, i.e., “Do you deliver babies?”

### ***Q. Do you perform Intensivist Medicine?***

Change the wording of the question to “Do you take care of patients in a hospital?” OR delete the question.

### ***Q. Which age patients do you most frequently work with?***

Re-word OR delete the question.

### ***Q. How much of your practice time do you spend in Indiana?***

The question needs to be re-worded OR deleted. Most keep their license current in this state but do not practice here. Instead they are practicing in other states, if at all.

### ***Q. Would you be willing to attend specialized training in disaster related medical care delivery?***

A collective decision was made to delete the question.

### ***Q. Are you “fluent” in Spanish? Are you “fluent” in Asian language?***

One of the suggestions was to change the word “fluent” to “conversant,” OR delete the question on language.

### ***Q. Do you have military or disaster medical experience?***

A collective decision was made to delete the question.

### ***Q. Do you deliver any type of medical service using telemedicine?***

A collective decision was made to delete the question.

***Q. Which best describes your race/ethnicity?***

Add this question for 2009, as demographics are collected every other re-licensure survey period. It was asked in 2005.

**Additional Suggestions**

Delete the specialty “Internal Medicine- Cardiac Electrophysiology” from the 2007 specialty list as it is already mentioned under Cardiology.

Add a question on Medicaid patients, “*Do you (currently see) or accept Medicaid patients?*”

Add a disclaimer in the report saying that the “responses only include physicians who took the survey” when showing the results of the survey questions.

### APPENDIX 3: Comparison Chart to Show Items Present in 2007 but NOT in Previous Years

Comparison Chart to show questions present between 2007 and before						
Abbreviation	Question	2007	2005	2003	2001	1997
<b>ESURVEY</b>	Drop Down List - changes year to year	X	X	X	X	X
<b>HPBLICSTAT</b>	License status code for professional license	X	X			
<b>WORKSTAT</b>	Question 1: What is your current work status in medicine? Consider yourself active in medicine if you are engaged in direct patient care, administration, teaching or research. Please select only one.	X	X	X	X	X
<b>MAJSPEC</b>	Question 3: What is your major specialty? Please select only one. IF YOU ARE RETIRED OR TEMPORARILY INACTIVE, select the specialty in which you are most experienced.	X	X	X	X	X
<b>Activity</b>	Question 4: In which professional activity do you spend most of your time?	X	X	X		
<b>AVHRS</b>	Question 5: How many hours per week on average do you spend in ALL activities in medicine? Please select only one.	X	X	X		
<b>OB</b>	Question 6: Do you perform obstetrics?	X	X	X	X	
<b>PN</b>	Question 7: Do you provide prenatal care?	X	X	X		
<b>INTNS</b>	Question 8: Do you perform intensivist medicine?	X	X	X	X	
<b>INPR</b>	Question 10: How much of your patient practice time do you spend in Indiana? Please select only one.	X	X			
<b>AGE</b>	Calculated age in 2007, based on HPBBYR data. Should be used in conjunction with BADBYR field.	X	X	X	X	X
<b>MDDO</b>	Not an official question - calculated	X			X	X

As shown in the table above, questions on e-survey, current work status, major specialty, and age were captured in all five re-licensure survey periods. Performing obstetrics and intensivist medicine were captured in all but 1997 survey period. Professional activity in which they spend most of their time, average hours per week, and providing prenatal care were not asked on the 1997 and 2001 surveys. Professional license status codes, and practice time in Indiana was only asked in 2007 and 2005.

#### Questions Present in 2005/Not in 2007

Abbreviation	Question	2007	2005	2003	2001	1997
<b>Race</b>	Question 17: Which of the following best describes your race? Please select only one. DROP-DOWN LIST		X		X	X
<b>Hisp Origin</b>	Are you of Hispanic Origin?		X		X	X
<b>Sex</b>	What is your sex? DROP-DOWN LIST		X		X	X

The above table shows that demographic information on race, ethnicity and gender were not collected in the 2007 and 2003 Indiana physician re-licensure surveys.