

Department of Health and Human Services

**OFFICE OF  
INSPECTOR GENERAL**

**IMPACT OF A LABORATORY ROLL IN ON  
MEDICARE EXPENDITURES**

A Management Advisory Report



**Richard P. Kusserow  
INSPECTOR GENERAL**

OEI-05-89-89151

# TABLE OF CONTENTS

---

PAGE

<b>Introduction</b> .....	1
Purpose .....	1
Background .....	1
Methodology .....	1
<b>Findings</b> .....	2
A laboratory roll in could save Medicare over \$1 billion in the first year and more than \$12 billion over 5 years .....	2
The LRI will provide sufficient funds for physicians to cover costs they incur in securing laboratory work .....	3
<b>Recommendation</b> .....	4
<b>Appendices</b>	
Appendix A: Methodology .....	A - 1
Appendix B: Enhancing LRI Success .....	B - 1
Appendix C: Draft Report Comments and OIG Response .....	C - 1

# INTRODUCTION

---

## PURPOSE

To examine the potential financial impact of including payment for laboratory services in Medicare's recognized charge for physician office visits.

## BACKGROUND

Recently, the Office of Inspector General (OIG) issued a monograph which examined the forces that affect use of laboratory services. That monograph concluded that Medicare's efforts to contain escalating laboratory costs have not succeeded in controlling growth in expenditures because they did not address use of services.

Our recent study entitled, "Ensuring Appropriate Use of Laboratory Services: A Monograph" proposed that Medicare roll reimbursement for laboratory services into the recognized charge for physician office visits. This bundling approach, called a laboratory roll in (LRI), appears to be a promising option which would contain rising laboratory costs. The report also suggests that a LRI, like Diagnosis Related Groups, can produce significant savings without compromising the quality of patient care.

## METHODOLOGY

To illustrate the effects of a LRI, we used 1988 Part B Medicare Annual Data (BMAD) and:

- 1) calculated a LRI by distributing allowed laboratory amounts across allowed physician office visits;
- 2) distributed services and allowed amounts billed by pathologists, osteopathic (DO) pathologists and independent clinical laboratories to all other physician specialties based on the proportion of services each specialty ordered from these outside sources;
- 3) compared average payment for laboratory services per office visit under fee-for-service (FFS) with the amount that would have been paid under a LRI;
- 4) calculated coinsurance and administrative savings; and,
- 5) conducted an analysis of individual laboratory use within physician specialties.

A detailed discussion of our methodology and analysis which has led to the information contained in this report can be found in Appendix A.

# FINDINGS

**Finding #1: A LRI could save Medicare over \$1 billion in the first year and more than \$12 billion over 5 years.**

Implementation of the LRI in 1992 would produce first year savings of at least \$1.1 billion. At least \$980 million of the savings would be realized from patient coinsurance. Administrative savings would realize an additional \$143 million. Table 1 illustrates savings from coinsurance, lower administrative costs and controlled growth in expenditures. The table shows that over 5 years cumulative savings could exceed \$12 billion.

*TABLE 1*

**PROJECTED CUMULATIVE LRI SAVINGS OVER 5 YEARS**

YEAR	PROJECTED MEDICARE EXPENDITURES UNDER FFS	ANTICIPATED LABORATORY EXPENDITURES AFTER LRI	SOURCE OF LRI SAVINGS			CUMULATIVE SAVINGS
			PAYMENT SAVINGS FROM LOWER GROWTH RATE	COINSURANCE	ADMINISTRATIVE	
1992	4.9B	4.9B	0	980M	143M	1.1B
1993	5.8B	5.4B	400M	1.1B	157M	2.8B
1994	6.9B	5.9B	1.0B	1.2B	173M	5.2B
1995	8.2B	6.5B	1.7B	1.3B	191M	8.3B
1996	9.8B	7.2B	2.6B	1.4B	210M	12.5B

With a LRI, the policies controlling physician office visits will also constrain the growth of laboratory expenditures. Future updates to the LRI would be a part of the fee schedule amounts for physician office visits. As an indistinguishable part of the office visit, future price increases for laboratory services would be held to the growth rate for physician services which is lower than the projected growth rate for laboratory services.

Table 1, on the previous page, shows projected expenditures under the current FFS system using current average growth of 19 percent annually. Estimates of anticipated laboratory expenditures after the LRI reflect an annual growth rate of 10 percent. The 10 percent growth rate is based on projected annual growth in physician payments under the new resource based relative value scale. The actual rates put forth by the Secretary in future years may differ from our estimates.

Physician payment reforms require the updating of relative values for physician services at least every 5 years. New technologies and other factors that might increase or decrease the cost of securing laboratory work would be considered at that time.

**Finding #2: The LRI will provide sufficient funds for physicians to cover costs they incur in securing laboratory work.**

This proposal would require physicians to pay for the clinical laboratory work they order for their patients. Medicare would no longer pay each individual entity performing tests ordered by a physician. The money Medicare spends under the FFS system would be distributed to physicians as an indistinguishable part of the recognized charge for physician office visits. The physician, rather than Medicare, would be responsible for paying any outside provider of laboratory services.

Analysis of the 1988 BMAD shows that the LRI would provide adequate funds to cover expenses physicians incur in securing laboratory work. On average, 77 percent of the physicians billing Medicare are likely to have more than sufficient funds to cover the costs they incur in securing laboratory work. Only atypical users of laboratory services are likely to experience difficulty in covering their costs. A detailed description of our methodology and the results of our analysis of the LRI's impact can be found in Appendix A.

## RECOMMENDATIONS

---

*The HCFA should research and develop the LRI reimbursement mechanism for laboratory services, and propose legislation to implement it within 2 years.*

In developing the LRI, HCFA will need to address a number of issues. Our analysis suggests that the LRI can only be effective in reducing costs if calculated using all Part B outpatient data, including hospital outpatient laboratory payment data and hospital outpatient visit data. We also believe the calculation should exclude laboratory procedures listed in the Federal Register as physician services. All other clinical laboratory services should be included in the LRI. We believe no entities providing outpatient laboratory services should be allowed to bill for services outside the LRI. Failure to include these safeguards could result in manipulation of the system and failure to achieve savings. Appendix B discusses enhancements which we feel would ensure the LRI success.

## Comments on the Draft Report

Both the Assistant Secretary for Planning and Evaluation (ASPE) and HCFA commented on our draft management advisory report. The ASPE concurred with our recommendation but believes studies should be undertaken to ensure that patient case mix does not adversely affect physician specialists. The HCFA cited several reasons for not concurring with our recommendation.

We regret that HCFA is not inclined to research and develop the LRI. We believe it is a viable concept, one that will control escalating laboratory expenditures. We do believe additional study is needed before considering implementation and therefore continue to urge HCFA to study and explore its possibilities.

The complete text of ASPE's and HCFA's comments and our specific responses are contained in Appendix C.

# APPENDIX A

---

## METHODOLOGY



## GENERAL INFORMATION

To determine the effects that a LRI might have, we analyzed HCFA's 1988 BMAD file. We did not analyze "local laboratory codes" in the BMAD file. These codes are unique to individual Medicare carriers. Their volume and dollar value are low. We also used a subsample of the 1 percent BMAD file to evaluate the effects of a LRI on physicians' income and to make comparisons with the current FFS system.

The following procedure codes in BMAD were used to calculate a hypothetical LRI for 1988.

80000 - 89999 Laboratory procedures  
 90000 - 90099 Office visits  
 90100 - 90199 Home visits  
 90600 - 90699 Consultations

The following is a table of BMAD procedure codes which were not used in our LRI calculations. Our rationale for not using them in our LRI calculations is also provided.

<u>Procedure codes</u>	<u>Procedure code description</u>	<u>Rationale for excluding</u>
90200 - 90299	Hospital visits	Laboratory services provided to inpatients are reimbursed as part of the DRG.
90400 - 90499	Nursing home and skilled nursing facility visits	Laboratory services provided to inpatients of these facilities should be billed to the facility. The facility would be reimbursed through the cost report mechanism.
90500 - 90599	Emergency department services	Final LRI should include these hospital outpatient services.
	All other codes procedure codes not listed.	The LRI is payable only when an office visit is payable. No additional payment will be made for laboratory procedures for which an office visit is not payable. We consider surgical procedures and medical treatment reimbursement to include all laboratory reimbursement unless an office visit is also payable.

Volume and dollar values for hospital outpatient laboratory procedures and outpatient clinic visits are not contained in the BMAD file, and therefore, were not included in our analysis. Past studies, conducted by the OIG, indicate that hospital outpatient laboratories provide approximately 25 percent of all Medicare laboratory services. This is a significant share of total outpatient laboratory services provided to patients. For this reason, and other reasons mentioned in our monograph, they should not be excluded from the LRI.

## LRI CALCULATIONS

A LRI is computed by dividing total Part B outpatient expenditures for laboratory tests by the total number of paid physician outpatient office visits in a given year. It results in the same level of aggregate payments as would be made under the FFS system in that year.

To illustrate how a LRI might be calculated, we used the 1988 BMAD file and redistributed the \$1.84 billion Medicare allowed for laboratory services across paid physician office visits. This calculation resulted in a base LRI of \$13.50 per office visit (\$1.84 billion Medicare allowed/1.37 million office visits).

To determine the potential impact on physician specialties, we compared the \$13.50 LRI with each specialty's average reimbursement for laboratory services under the FFS system. To do this, we created a subsample from the BMAD consisting patients who were seen by a single physician in 1988. This enabled us to obtain a complete picture of all laboratory services a patient received, no matter who billed. Using the subsample we calculated the number of physician office laboratory services provided in-house by each specialty to each patient. We also calculated the number of services each specialty ordered from an outside source. Allowed amounts and service volume for clinical laboratory services billed by pathologists, osteopathic (DO) pathologists and nonphysician specialties such as independent clinical laboratories, were distributed to all physician specialties based on the proportion of services each physician specialty ordered from an outside source. The same method was used to redistribute the allowed dollar value of tests.

We calculated the weighted average for office visits in the 1 percent BMAD sample and in our subsample of patients who were seen by a single physician. We did this to determine whether the subsample, on which the distribution was based, differed from significantly from the 1 percent BMAD from which it was drawn. The weighted average for office visits in the 1 percent BMAD was 3.33 versus 3.51 in the subsample. The slight difference between the two numbers shows that the subsample on which our distribution was based is reflective of the whole sample.

The financial impact that a \$13.50 base LRI would have on physicians is shown in Table 1 on the following page. The last column in each table indicates whether, on average, the physicians in each specialty are likely to be paid more or less than they were under the FFS system.

Table 1

*Effect of \$13.50 base LRI on Physician Specialties*

Specialties	FFS Data						
	Total Office Visits	Avg. OV Per Bene	Total <sup>1</sup> Lab Services	Average <sup>1</sup> Lab Svcs. Per Visit	Total <sup>1</sup> Paid For Lab	Average Lab Paid/OV Under FFS	+/- <sup>2</sup>
01 General Practice	164397	4.04	171047	1.04	\$1,994,179	\$12.13	+
02 General Surgery	59213	2.25	44058	0.74	\$ 688,192	\$11.62	+
03 Allergy	4873	3.86	1993	0.41	\$ 27,603	\$ 5.66	+
04 ENT	30316	1.75	9109	0.30	\$ 156,879	\$ 5.17	+
05 Anesthesiology	1720	2.04	1488	0.86	\$ 17,574	\$10.22	+
06 Cardiovascular Disease	68718	2.82	61454	0.89	\$ 770,907	\$11.22	+
07 Dermatology	31090	2.05	19163	0.62	\$ 476,851	\$15.34	-
08 Family Practice	2033692	3.86	248498	1.22	\$2,969,973	\$14.58	-
09 Gynecology (DO Only)	158	1.93	121	0.76	\$ 1,604	\$10.15	+
10 Gastroenterology	19166	2.04	20824	1.09	\$ 279,981	\$14.61	-
11 Internal Medicine	414798	4.07	581949	1.40	\$6,927,411	\$16.70	-
12 Manipulative Therapy (DO)	2719	4.07	2775	1.02	\$ 32,614	\$11.99	+
13 Neurology	20595	1.85	10206	0.50	\$ 143,340	\$ 6.97	+
14 Neurological Surgery	4734	1.61	1628	0.34	\$ 20,450	\$ 4.32	+
15 Obstetrics	62	3.88	6	0.10	\$ 89	\$ 1.44	+
16 OB-Gynecology	15791	1.59	14780	0.94	\$ 162,037	\$10.26	+
17 EENT (DO only)	776	1.69	829	1.07	\$ 10,011	\$12.90	+
18 Ophthalmology	51108	1.87	19544	0.38	\$ 259,173	\$ 5.07	+
19 Oral Surgery	490	1.49	467	0.95	\$ 8,965	\$18.30	-
20 Orthopedic Surgery	44331	2.10	13663	0.31	\$ 198,422	\$ 4.48	+
23 Peripheral Vascular (DO)	364	2.55	145	0.40	\$ 3,162	\$ 8.69	+
24 Plastic Surgery	3185	1.64	2035	0.64	\$ 55,851	\$17.54	-
25 Physical Medicine	4545	2.11	1212	0.27	\$ 19,235	\$ 4.23	+
26 Psychiatry	5171	2.24	5731	1.11	\$ 79,640	\$15.40	-
28 Proctology	1195	1.56	696	0.58	\$ 8,621	\$ 7.21	+
29 Pulmonary Disease	18896	2.79	14146	0.75	\$ 194,073	\$10.27	+
30 Radiology	5403	1.71	2810	0.52	\$ 39,368	\$ 7.29	+
31 Radiology (DO)	394	4.86	1234	3.13	\$ 12,169	\$30.89	-
32 Radiation Therapy	221	1.44	158	0.71	\$ 1,907	\$ 8.63	+
33 Thoracic Surgery	6529	1.64	2805	0.43	\$ 39,938	\$ 6.12	+
34 Urology	42338	2.13	63880	1.51	\$ 618,795	\$14.62	-
36 Nuclear Medicine	157	1.91	147	0.94	\$ 4,422	\$28.17	-
37 Pediatrics	2820	3.21	2926	1.04	\$ 34,838	\$12.35	+
38 Geriatrics	429	3.06	488	1.14	\$ 5,832	\$13.60	-
39 Nephrology	8042	3.03	10162	1.26	\$ 126,568	\$15.74	-
40 Hand Surgery	240	1.95	82	0.34	\$ 1,240	\$ 5.17	+
41 Optometry	4085	1.40	2242	0.55	\$ 28,757	\$ 7.04	+
48 Podiatry	28746	2.14	13134	0.46	\$ 173,675	\$ 6.04	+
49 Misc. Physician	1779	2.96	4568	2.57	\$ 81,513	\$45.82	-
70 Clinic or Group Practice	91362	3.62	123852	1.36	\$1,706,841	\$18.68	-
88 Unknown	40	2.22	55	1.38	\$ 266	\$ 6.65	+
99 Unknown Physician	259	2.35	1122	4.33	\$ 15,597	\$60.22	-

Source: One percent sample of the 1988 BMAD files

- <sup>1</sup> Includes laboratory services billed by non-physician specialties such as independent clinical laboratories which were distributed among the physician specialties. This was done because only physicians are reimbursed using LRI.
- <sup>2</sup> This column represents whether a physician specialty, on average, would be paid more or less under LRI than under the fee-for-service system.

## ANALYSIS OF THE LRI'S FINANCIAL IMPACT ON SELECTED PHYSICIAN SPECIALTIES.

The graphs on the following pages show the effects of the LRI on selected physician specialties. We selected these nine specialties for this report because, as a group, each of these specialties appears to be paid less under the LRI than they were under the FFS system, and each specialty had at least 50 practitioners in our subsample. Detailed analysis shows that although each specialty as a whole appears to be paid less under the LRI, the majority of individual physicians within the specialty will actually benefit from the LRI.

Graphs A through I were prepared from our subsample of the 1 percent 1988 BMAD file. The subsample, as previously mentioned, consisted of beneficiaries who saw only one physician in 1988. Using the subsample gave us a complete picture of all laboratory services a patient received, no matter who billed. Because each patient was seen by a single physician we were able to group physicians by their respective specialties.

Within each specialty, we categorized physicians by how many laboratory services each ordered, on average, per office visit. For the physicians in each category, we divided the total amount Medicare paid them for laboratory services by the total number of office visits they billed, to obtain the average laboratory reimbursement for each category.

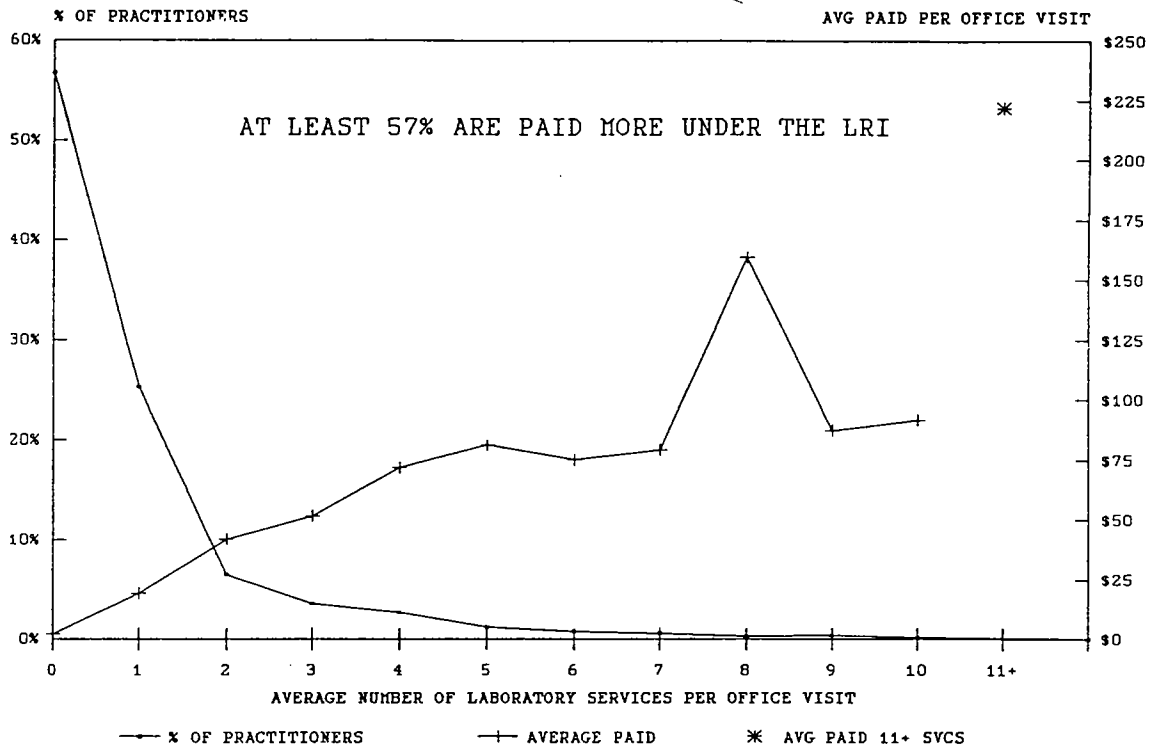
The graphs, and the tables which accompany them, show the LRI's effect on individual physicians within a specialty. They show that the majority of physicians in each specialty would have more than adequate funds to cover expenses incurred in securing laboratory work. On average, 77 percent of the physicians billing Medicare are likely to have more than sufficient funds to cover the costs they incur in securing laboratory work. Only atypical users of laboratory services are likely to experience difficulty in covering their costs.

The data for Specialty 11, Internal Medicine, will illustrate our analysis and how to read the graphs on the following pages. As mentioned earlier we calculated a LRI of \$13.50 for 1988. This means that \$13.50 would be added to the Medicare recognized charge for every office visit billed by physicians. The data on Table 1 of Appendix A indicated that internists charge on average \$14.61 per office visit for laboratory services. Because the LRI would pay only \$13.50, it appears that physicians specializing in Internal Medicine would lose \$1.10 on each office visit billed.

When individual use of laboratory services under the FFS system is examined more closely (Graph D and the accompanying table), it shows that the average Medicare payment was less than \$13.50 for at least 71 percent of the internists. On average, 36 percent were paid \$2.51 and 35 percent were paid \$9.63. Under the LRI, 71 percent of internists are likely to receive more money than they did under FFS system. The graph also shows that less than 1 percent of internists provide, on average, 11 or more laboratory services per office visit at an average cost to Medicare of \$198.

**GRAPH A**  
**AVERAGE LABORATORY PAYMENT**  
**SPECIALTY 7: DERMATOLOGY, N = 1104**

(PARTIAL GRAPH)



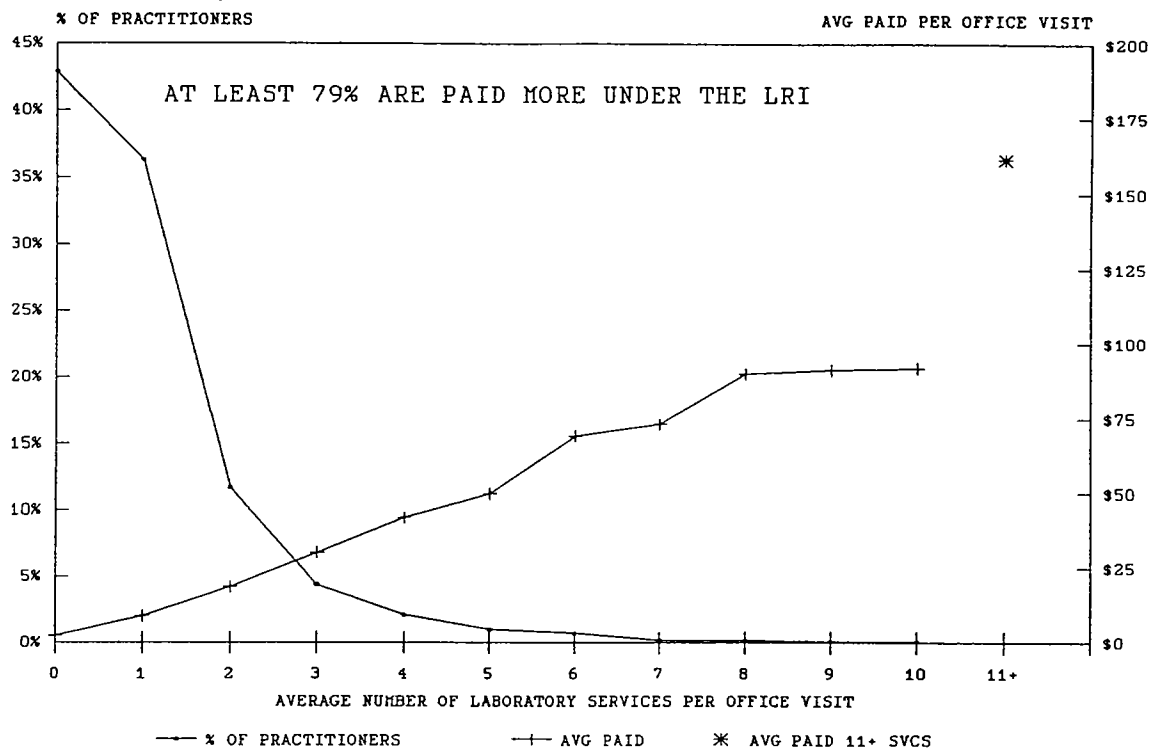
1988 BMAD SUBSAMPLE

**TABLE OF DATA**

AVERAGE SERVICES PER OFFICE VISIT	SUBSAMPLE FREQUENCY	% OF SPECIALTY	AVERAGE PAID
0	627	56.8%	\$2.15
1	279	25.3%	\$19.31
2	72	6.5%	\$42.05
3	40	3.6%	\$51.76
4	30	2.7%	\$71.90
5	13	1.2%	\$81.27
6	9	0.8%	\$75.10
7	7	0.6%	\$79.23
8	3	0.3%	\$159.33
9	1	0.4%	\$87.25
10	2	0.2%	\$91.56
11+	18	1.8%	\$222.01

**GRAPH B**  
**AVERAGE LABORATORY PAYMENT**  
**SPECIALTY 8: FAMILY PRACTICE, N = 10,374**

(PARTIAL GRAPH)



1988 BMAD SUBSAMPLE

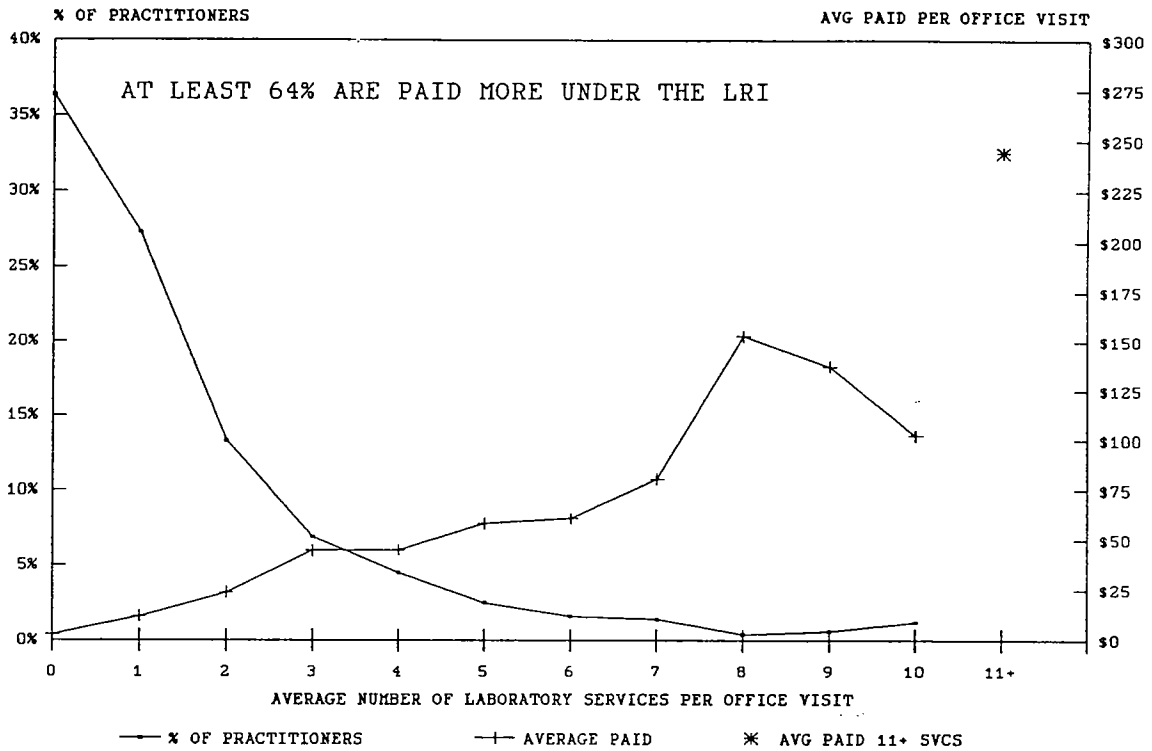
**TABLE OF DATA**

AVERAGE SERVICES PER OFFICE VISIT	SUBSAMPLE FREQUENCY	% OF SPECIALTY	AVERAGE PAID
0	4454	42.9%	\$2.44
1	3761	36.3%	\$8.94
2	1212	11.7%	\$18.83
3	455	4.4%	\$30.27
4	219	2.1%	\$41.90
5	103	0.1%	\$49.89
6	72	0.7%	\$69.17
7	24	0.2%	\$73.15
8	19	0.2%	\$89.81
9	11	0.1%	\$91.07
10	10	0.1%	\$91.65
11+	34	0.2%	\$161.48



**GRAPH C**  
**AVERAGE LABORATORY PAYMENT**  
**SPECIALTY 10: GASTROENTEROLOGY, N = 692**

(PARTIAL GRAPH)



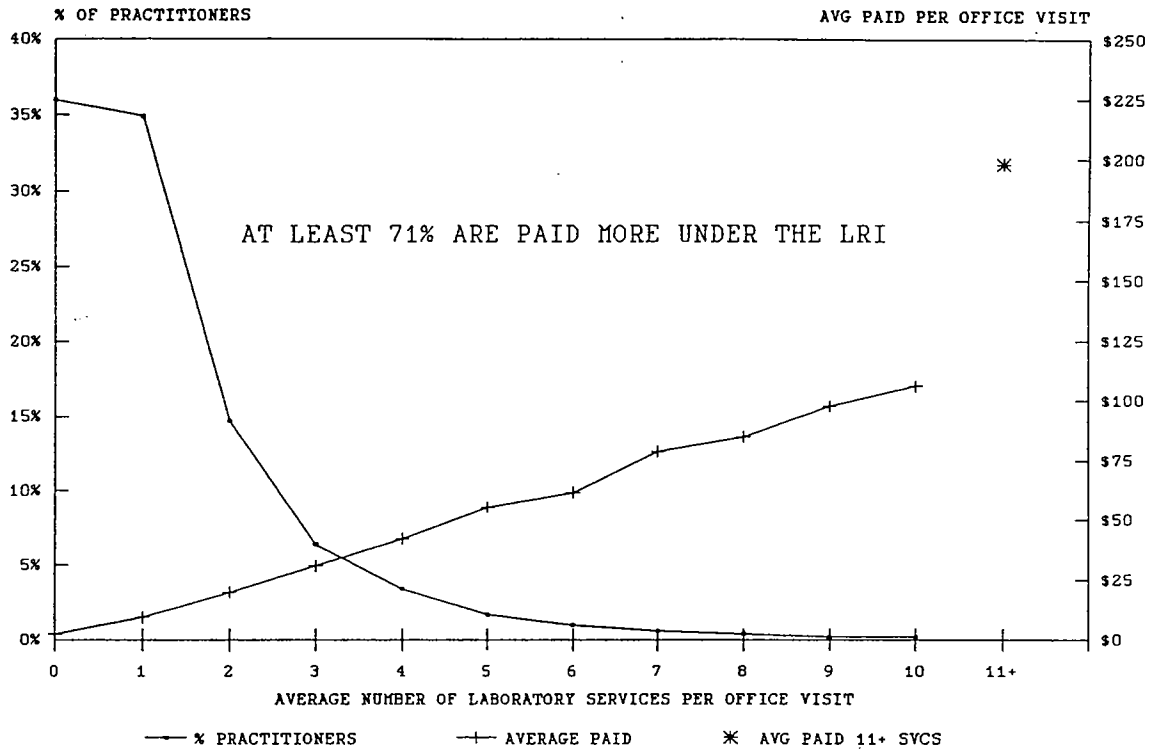
1988 BMAD SUBSAMPLE

**TABLE OF DATA**

AVERAGE SERVICES PER OFFICE VISIT	SUBSAMPLE FREQUENCY	% OF SPECIALTY	AVERAGE PAID
0	252	36.4%	\$2.98
1	189	27.3%	\$12.01
2	92	13.3%	\$23.93
3	48	6.9%	\$44.89
4	31	4.5%	\$45.11
5	17	2.5%	\$58.32
6	11	1.6%	\$60.92
7	10	1.4%	\$80.69
8	3	0.4%	\$152.77
9	4	0.6%	\$137.21
10	8	1.2%	\$102.38
11+	27	3.5%	\$244.20

**GRAPH D**  
**AVERAGE LABORATORY PAYMENT**  
**SPECIALTY 11: INTERNAL MEDICINE, N = 16,145**

(PARTIAL GRAPH)



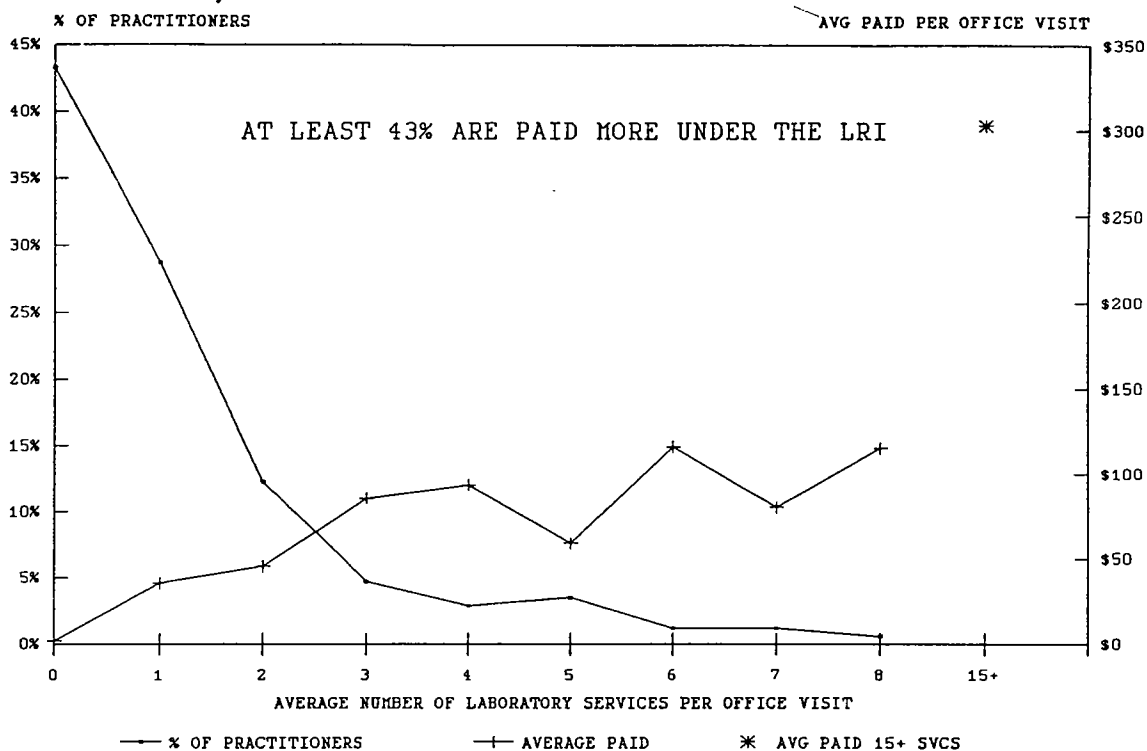
1988 BHAD SUBSAMPLE

**TABLE OF DATA**

AVERAGE SERVICES PER OFFICE VISIT	SUBSAMPLE FREQUENCY	% OF SPECIALTY	AVERAGE PAID
0	5814	36.0%	\$2.51
1	5627	34.9%	\$9.63
2	2372	14.7%	\$19.88
3	1039	6.4%	\$30.94
4	556	3.4%	\$42.32
5	273	1.7%	\$55.39
6	156	1.0%	\$61.67
7	90	0.6%	\$78.96
8	62	0.4%	\$85.14
9	38	0.2%	\$97.89
10	29	0.2%	\$106.07
11+	89	0.3%	\$198.04

**GRAPH E**  
**AVERAGE LABORATORY PAYMENT**  
**SPECIALTY 24: PLASTIC SURGERY, N = 171**

(PARTIAL GRAPH)



1988 BMAD SUBSAMPLE

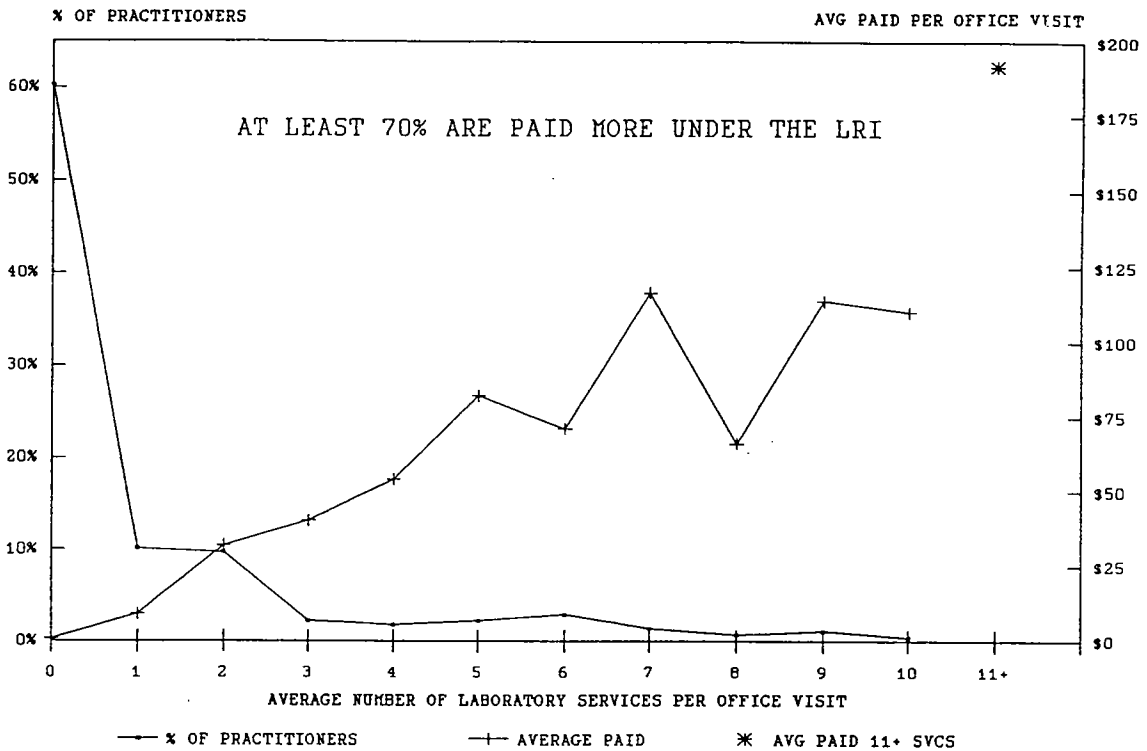
**TABLE OF DATA**

AVERAGE SERVICES PER OFFICE VISIT	SUBSAMPLE FREQUENCY	% OF SPECIALTY	AVERAGE PAID
0	74	43.3%	\$2.09
1	49	28.7%	\$35.87
2	21	12.3%	\$45.56
3	8	4.7%	\$85.80
4	5	2.9%	\$93.71
5	6	3.5%	\$59.07
6	2	1.2%	\$116.16
7	2	1.2%	\$80.36
8	1	0.6%	\$115.28
15+	3	1.8%	\$302.87

(There were no observations between 8 and 15 in the subsample.)

**GRAPH F**  
**AVERAGE LABORATORY PAYMENT**  
**SPECIALTY 26: PSYCHIATRY, N = 277**

(PARTIAL GRAPH)



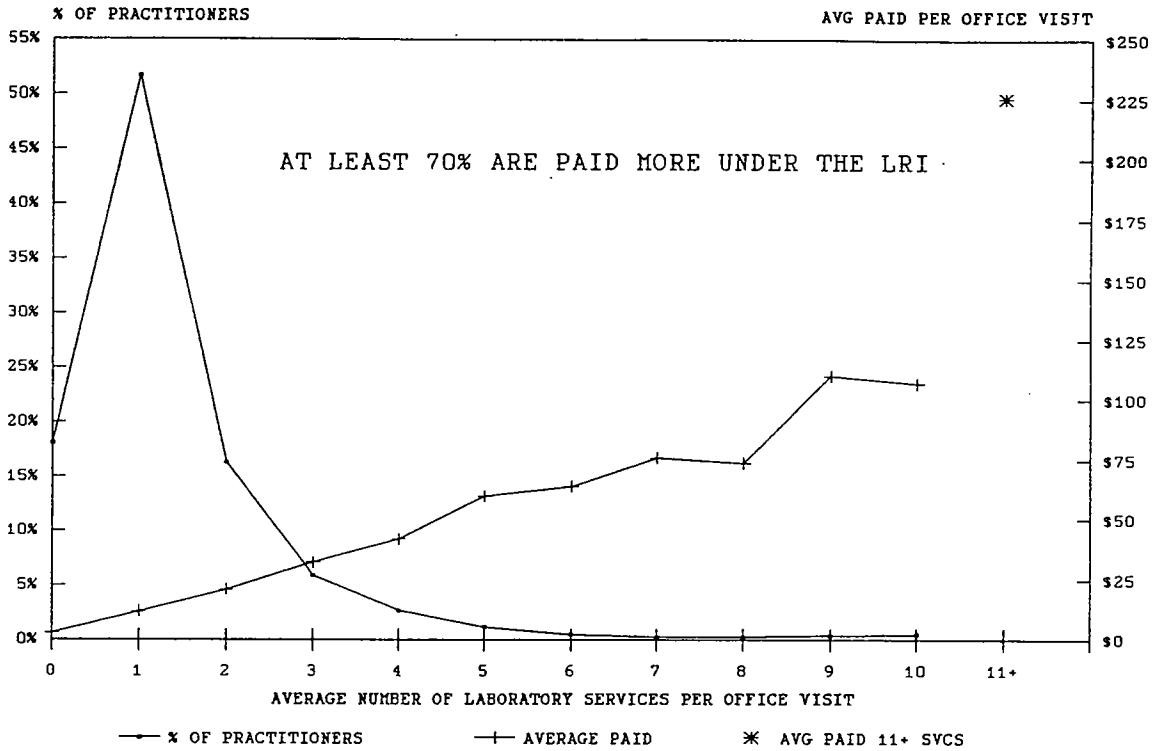
1988 BHAD SUBSAMPLE

**TABLE OF DATA**

AVERAGE SERVICES PER OFFICE VISIT	SUBSAMPLE FREQUENCY	% OF SPECIALTY	AVERAGE PAID
0	167	60.3%	\$0.95
1	28	10.1%	\$9.15
2	27	9.7%	\$32.12
3	6	2.2%	\$40.42
4	5	1.8%	\$54.15
5	6	2.2%	\$82.16
6	8	2.9%	\$71.13
7	4	1.4%	\$116.31
8	2	0.7%	\$66.24
9	3	1.1%	\$113.61
10	1	0.4%	\$109.96
11+	20	7.3%	\$191.78

**GRAPH G**  
**AVERAGE LABORATORY PAYMENT**  
**SPECIALTY 34: UROLOGY, N = 1,346**

(PARTIAL GRAPH)



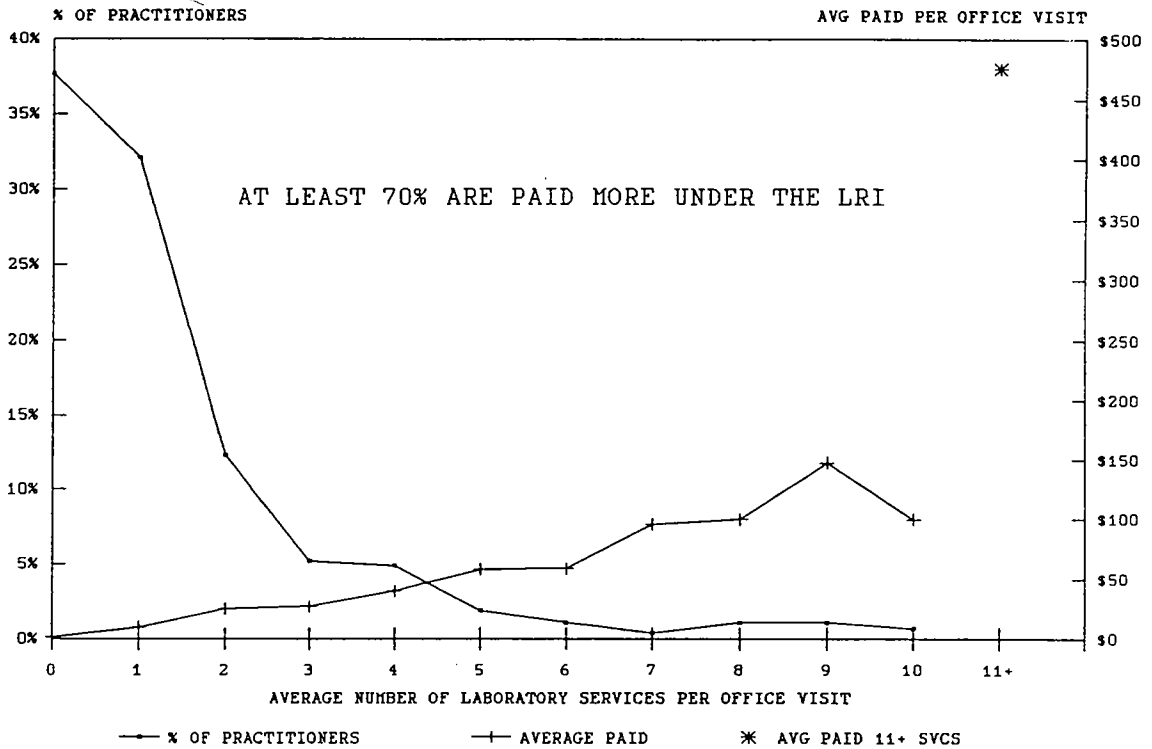
1988 BHAD SUBSAMPLE

**TABLE OF DATA**

AVERAGE SERVICES PER OFFICE VISIT	SUBSAMPLE FREQUENCY	% OF SPECIALTY	AVERAGE PAID
0	243	18.1%	\$2.94
1	696	51.7%	\$11.85
2	220	16.3%	\$20.98
3	79	5.9%	\$32.30
4	37	2.7%	\$41.93
5	16	1.2%	\$59.91
6	7	0.5%	\$64.07
7	4	0.3%	\$76.11
8	4	0.3%	\$73.94
9	5	0.4%	\$110.02
10	7	0.5%	\$106.64
11+	28	2.3%	\$225.71

**GRAPH H**  
**AVERAGE LABORATORY PAYMENT**  
**SPECIALTY 39: NEPHROLOGY, N = 268**

(PARTIAL GRAPH)



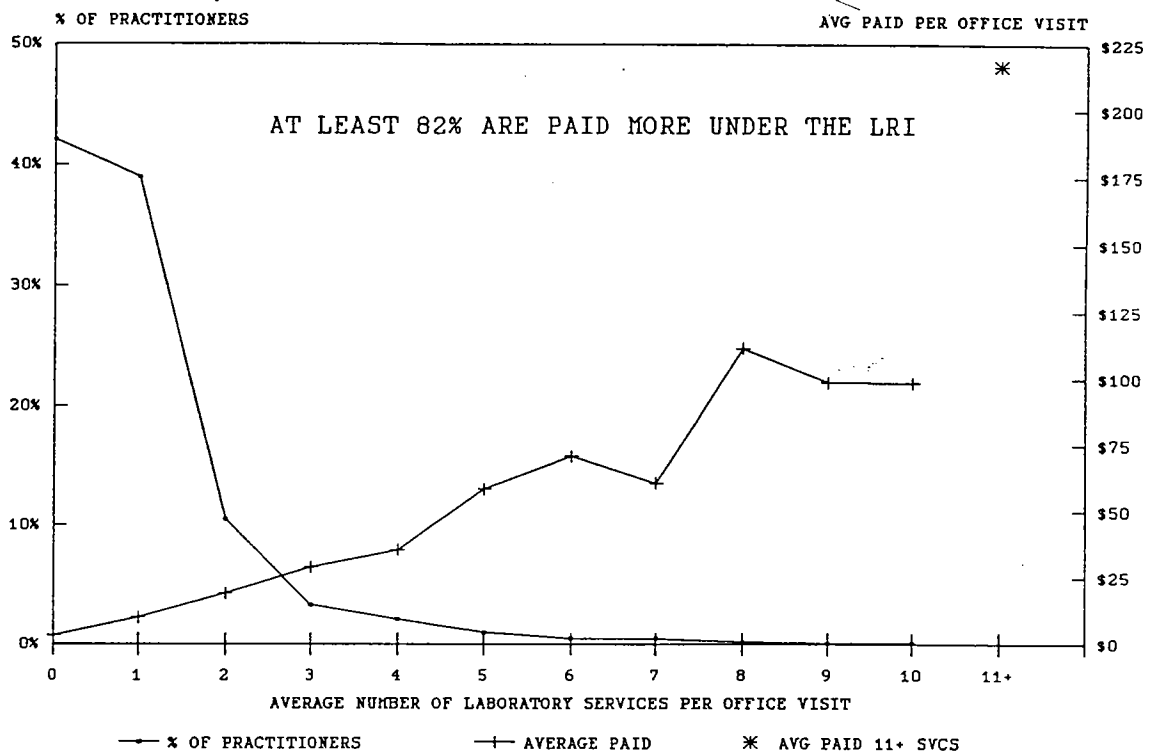
1988 BHAD SUBSAMPLE

**TABLE OF DATA**

AVERAGE SERVICE PER OFFICE VISIT	SUBSAMPLE FREQUENCY	% OF SPECIALTY	AVERAGE PAID
0	101	37.7%	\$1.45
1	86	32.1%	\$9.96
2	33	12.3%	\$25.20
3	14	5.2%	\$27.09
4	13	4.9%	\$40.04
5	5	1.9%	\$57.94
6	3	1.1%	\$58.74
7	1	0.4%	\$95.66
8	3	1.1%	\$100.07
9	3	1.1%	\$147.43
10	2	0.7%	\$99.61
11+	4	1.6%	\$475.44

**GRAPH I**  
**AVERAGE LABORATORY PAYMENT**  
**SPECIALTY 70: CLINIC/GROUP PRACTICE, N = 2,233**

(PARTIAL GRAPH)



1988 BHAD SUBSAMPLE

**TABLE OF DATA**

AVERAGE SERVICES PER OFFICE VISIT	SUBSAMPLE FREQUENCY	% OF SPECIALTY	AVERAGE PAID
0	941	42.1%	\$3.29
1	870	39.0%	\$10.06
2	234	10.5%	\$19.23
3	73	3.3%	\$29.16
4	46	2.1%	\$35.70
5	23	1.0%	\$58.66
6	11	0.5%	\$71.15
7	11	0.5%	\$60.94
8	5	0.2%	\$111.56
9	3	0.1%	\$98.68
10	3	0.1%	\$98.38
11+	13	0.3%	\$216.93

# APPENDIX B

---

## ENHANCING LRI SUCCESS



## ENHANCING LRI SUCCESS

In researching our previous study, entitled "Ensuring Appropriate Use of Laboratory Services: A Monograph," we learned the laboratory marketplace is extremely adaptable. For nearly 20 years it has demonstrated its ability to adapt to new laws, regulations and policies and overcome HCFA's efforts to contain costs. We learned that a reimbursement mechanism that makes too many exceptions will increase utilization. Therefore, we believe that incorporation of the following elements into LRI implementation will safeguard the benefits described in the monograph and this management advisory report.

*The LRI should be calculated using BMAD and hospital outpatient data.*

A LRI is a one-time event. The LRI should be calculated from all outpatient laboratory data including hospital outpatient data. Exclusion of any entity providing laboratory services will encourage a shift of laboratory work to excluded persons or businesses.

*Only laboratory services defined in the Federal Register as physician services should be excluded from the LRI.*

In 1988 fewer than 1000 different laboratory procedure codes were used to bill Medicare. Several thousand codes were not used. Failure to address all laboratory services would in all likelihood result in shifts to codes currently not in use. Only laboratory services defined in the Federal Register as physician services should be excluded from the LRI. These excluded services would be paid as physician services under Medicare's resource-based relative value scale (RBRVS). Failure to include all other laboratory services would encourage manipulation of the system.

Table of Procedure Codes  
Redefined as Physician Services

HCPCS	DESCRIPTION
80500	LAB PATHOLOGY CONSULTATION
80502	LAB PATHOLOGY CONSULTATION
85095	BONE MARROW ASPIRATION
85097	BONE MARROW INTERPRETATION
85100	BONE MARROW EXAMINATION
85101	ASPIRATE, STAIN BONE MARROW
85102	BONE MARROW BIOPSY
88104	CYTOPATHOLOGY
88125	FORENSIC CYTOPATHOLOGY
88130	SEX CHROMATIN IDENTIFICATION
88162	CYTOPATHOLOGY, EXTENSIVE
88170	FINE NEEDLE ASPIRATION
88171	FINE NEEDLE ASPIRATION
88172	EVALUATION OF SMEAR
88173	INTERPRETATION OF SMEAR
88300	SURGICAL PATH, GROSS
88302	SURGICAL PATH, GROSS AND MICRO
88304	SURGICAL PATH, GROSS AND MICRO
88305	SURGICAL PATH, GROSS AND MICRO
88307	SURGICAL PATH, GROSS AND MICRO
88309	SURGICAL PATH, GROSS AND MICRO
88321	MICROSLIDE CONSULTATION
88323	MICROSLIDE CONSULTATION
88325	COMPREHENSIVE REVIEW OF DATA
88329	CONSULTATION DURING SURGERY
88331	CONSULTATION DURING SURGERY
88332	CONSULTATION DURING SURGERY
88348	ELECTRON MICROSCOPY

Source: Federal Register, V. 55 No. 171, September 4, 1990, p. B-20 (p. 36234)

*All physician specialties should be included in the LRI payment.*

In our analysis, we found that only atypical physicians in each specialty would be likely to receive less money under a LRI. The graphs and tables in appendix A show that the majority of physicians in most specialties would receive more money under a LRI. Therefore, we do not believe a LRI needs to be adjusted for specialty differences nor should a specialty be excluded.

# APPENDIX C

---

## DRAFT REPORT COMMENTS AND OIG RESPONSE



FEB 12 1991

TO: Richard P. Kusserow  
Inspector General

FROM: Assistant Secretary for  
Planning and Evaluation

SUBJECT: OIG Draft Report: "Impact of a Laboratory Roll-In on  
Medicare Expenditures" (OEI-05-89-89151) -- COMMENTS

RECEIVED  
 OFFICE OF INSPECTION  
 FEB 13 1991

Thank you for the opportunity to review the subject report. We generally support the concept of "bundling" as a way to encourage efficient use of services. We agree that HCFA should research and develop a reimbursement mechanism for laboratory services based on bundling to replace the laboratory fee schedule.

We believe that two major issues that are not addressed in the draft report must be resolved before bundling can be considered to be a viable alternative reimbursement mechanism. First, the issue of case-mix complexity. Graphs A through I show that, for the specialties examined, only a relatively small proportion of physicians order a large number of tests per visit. However, the analysis does not examine the differences in case-mix across physicians to evaluate how the severity of patient illness (e.g., co-morbidities, nonspecific etiologies) affects utilization of tests. The second issue is that, while many of the most common tests can be obtained at fairly low prices, many special tests are unavoidably more expensive. For example, the report does not examine differences in prices by the clinical performance characteristics of tests. Under the approach advocated by the report, physicians would be financially penalized for adopting more diagnostically specific tests, since such tests are often more expensive than a standard test, especially when first introduced.

In order for a bundling strategy to be effective, it must be sensitive to the circumstances under which laboratory services are appropriately required. While we agree with the implicit premise of the report that a simple approach is more desirable than an overly complex one, we believe that a flat add-on for all laboratory services regardless of case-mix and technology would be inadequate.

*Marty H. Gerry*  
Marty H. Gerry

RECEIVED  
FEB 19 1991



DEPARTMENT OF HEALTH & HUMAN SERVICES

Health Care  
Financing Administration

Memorandum

APR 15 1991

Date

Gail R. Wilensky, Ph.D. *GW*  
Administrator

From

Subject

OIG Draft Report - "Impact of a Laboratory Roll In on Medicare Expenditures."  
OEI-05-89-89151

To

The Inspector General  
Office of the Secretary

We have reviewed the subject draft report, which is a follow-up to OIG's previous study entitled "Ensuring Appropriate Use of Laboratory Services: A Monograph," OEI-05-89-89150. Both reports outline a method for rolling laboratory payment into Medicare's recognized charge for a physician office visit.

The report found that a bundling approach, called a laboratory roll-in (LRI), could save Medicare over \$1 billion in the first year and more than \$12 billion over 5 years. It also found physicians would be sufficiently paid by the additional funds added onto the payment for office visits (the LRI) to pay for all necessary laboratory work ordered for their patients. OIG recommends that HCFA should research and develop the LRI payment mechanism for laboratory services, and propose legislation to implement it within 2 years.

While, in general, we strongly support the concept of bundling related services into payment groups, we do not concur with the plan to roll laboratory payment into Medicare's recognized charge for a physician office visit as it is described in the report for the reasons described in the attached comments. Our specific comments on the report's recommendation are also attached for your consideration.

Thank you for the opportunity to review and comment on this draft report. Please advise us whether you agree with our position on the report's recommendations at your earliest convenience.

Attachment

HHS/OIG OFFICE OF EVALUATION AND INSPECTION - ROV	
APR 22 1991	

Comments of the Health Care Financing Administration  
(HCFA) on the OIG Draft Report - "Impact of a Laboratory  
Roll In On Medicare Expenditures," OEI-05-89-89151

In general, bundling related services into groups for payment purposes can provide appropriate incentives for the efficient delivery of services while ensuring quality of care. Bundling payment for laboratory tests into physician office visits is an interesting idea, but is one that would need extensive research and analysis before it could be pursued. HCFA does not concur with OIG's recommendation for four primary reasons: (1) the concept is in conflict with the thrust of all recently enacted Medicare legislation that governs Medicare certification of laboratories and payment for laboratory services, most notably the Clinical Laboratory Improvement Amendments of 1988 (CLIA); (2) the Laboratory Roll In (LRI) concept as described in this report has serious conceptual and practical problems; (3) enactment of the legislative proposal to reinstate coinsurance on laboratory services contained in the FY 1992 President's budget, combined with the administrative complexities of the LRI proposal, would virtually eliminate the \$1.1 billion annual savings estimated by OIG; and (4) it would be difficult, if not impossible, for HCFA to develop laboratory payment reform while implementing Physician Payment Reform. Our specific comments follow.

1. OIG's suggested methodology for paying laboratory fees would not be in compliance with CLIA or the Omnibus Budget Reconciliation Act of 1989 (OBRA 89). OBRA 89 cross-references the CLIA statute for Medicare payment. Thus, the Federal laboratory regulations will be uniform between Medicare and CLIA, and both will be based on tests performed. A payment system based on the physician office visit would not identify individual laboratory test procedures performed. This would make it impossible for Medicare carriers to correlate tests performed by the laboratory with the laboratory's certification status.
2. The LRI plan proposed by OIG advocates the same payment to different kinds of physicians. This would result in significant inequities in compensation because test-ordering practices and the costs of tests typical to a specialty may differ greatly. Even with an adjustment for different specialties, the LRI plan would put individual physicians at risk based on whether their patient mix was sicker than average or required greater than the average number of clinical laboratory tests. Risk cannot be spread with individual physicians, who are small volume providers, as it can with hospitals and HMOs.
3. Under the LRI system, information on utilization of specific laboratory tests would no longer be available. To assure the availability of such information would require that an alternative data collection system be developed. Also, it

would be difficult for HCFA to determine the future costs of laboratory services without knowing the costs of laboratory services to physicians. This information would most likely have to be provided on the physician's office visit bill, which would adversely affect any administrative savings anticipated.

4. While lab tests may represent 25 percent of the carriers' workload, they are usually submitted electronically and are inexpensive to process. Adding laboratory tests to doctors' paper claims will result in a smaller overall claims volume, but also in fewer electronic medical claims and a higher administrative cost per claim. Assessing the combined effect of these results on administrative costs as a whole would require further analysis.
5. The report references Blue Cross and Blue Shield Association and the American College of Physicians findings that 20 to 60 percent of clinical laboratory testing may be unnecessary. The calculation in the report, which arrived at \$13.50 for the amount to be added onto a physician office visit, did not take this into account.
6. OIG calculated that the use of the LRI plan would produce first year savings of at least \$1.1 billion, and that \$980 million of those savings would be realized from patient coinsurance. The FY 1992 President's budget includes a legislative proposal to reimpose laboratory coinsurance. If this is enacted, the savings from the LRI mechanism would be virtually eliminated.

After the savings from patient coinsurance have been subtracted, the balance of the savings estimated by OIG, \$143 million, was attributed to reductions in administrative costs. It is unclear how much, if any, of the administrative savings anticipated by OIG could actually be realized because of other factors not taken into account in this study. These factors include: the change from electronically submitted laboratory claims to additional line items on paper claims; the need for a new laboratory certification system under the LRI payment mechanism; the possible inflationary effect of potential kickbacks under LRI; and the cost of developing and maintaining a new system for collecting laboratory data for utilization and payment purposes.

In addition, provisions enacted in OBRA 90 have also addressed the concerns about rapid inflation in laboratory costs that prompted OIG to recommend an LRI payment mechanism. Section 4154(a) of OBRA 90 changes the annual update factor for the laboratory fee schedules from the Consumer Price Index for All Urban Consumers (which usually runs 4 percent to 5 percent) to 2 percent for FY 1991-1993. Section 4154(b) of OBRA 90 reduces the national

limit for each test, now set at 93 percent of the median of the carrier fee schedule amounts, to 88 percent of the median of the carrier fee schedule amounts, effective January 1, 1991. These provisions should help to serve to control the growth of laboratory reimbursements.

7. It would be difficult, if not impossible, for HCFA to develop laboratory payment reform while implementing Physician Payment Reform. The problem is further exacerbated by the demands on HCFA to fully implement other new legislative provisions--notably CLIA, and the prohibition on referrals from physicians who have an ownership interest in laboratory entities--which are in conflict with the OIG proposal. Given both the administrative complexity of our responsibilities under current law and changes that will be taking place in payments to physicians as a result, this would not appear to be an opportune time to develop or implement a LRI policy.



## OIG Response to ASPE and HCFA Comments

Both the Assistant Secretary for Planning and Evaluation (ASPE) and the Health Care Financing Administration (HCFA) commented on our draft Management Advisory Report. The ASPE agrees with our recommendations and suggests that the potential differences in patient case-mix among physician practices and the difference in prices between "common" and more specialized testing be further explored.

The HCFA does not concur with our recommendation. Primarily, they feel that the LRI: 1) is in conflict with implementation of the Clinical Laboratory Improvement Amendments of 1988 (CLIA); 2) will put individual physicians at risk based on the complexity of their patient mix; 3) will not save money; and, 4) will be difficult, if not impossible, to develop while implementing Physician Payment Reform.

We do not believe that the LRI conflicts with CLIA's implementation. Based on HCFA's comments, it appears that enforcement of CLIA regulations is going to be dependent, in part, on Medicare carrier tracking of laboratory and physician billings for laboratory services. HCFA maintains that, under the LRI system, information on utilization and specific laboratory tests would no longer be available, making their enforcement of CLIA difficult.

While discrete Medicare claim information on laboratory use will not be available under the LRI, this information does exist in HCFA's certification and survey process and could also be obtained through scientific sampling. In addition, it has always been our belief that reliance on Medicare carriers to scrutinize millions of laboratory claim line items is an arduous and costly task.

We would also point out that approximately two out of three laboratories that HCFA will be regulating under CLIA do not submit itemized bills to carriers. Hospital, nursing home and dentist laboratories are but a few that do not submit itemized bills for laboratory services to Medicare. It would appear that an alternate system of enforcement will have to be developed for these laboratories. This system could be adapted for Medicare laboratories, thus removing the need for carrier data on laboratory services.

The HCFA and ASPE believe that the LRI might put individual physicians at risk based on their patient case mix. We considered this issue during the development of the LRI and found little evidence to support the patient case mix theory. All of the literature we located and our research appear to indicate that individual physician case mix does not account for differences in the use of services. Our work on patient case mix was not a rigorous analysis; therefore, we agree with ASPE and HCFA that additional study needs to be done.

Our analysis of laboratory use by physician specialty indicated that expensive laboratory services which might adversely affect some physician specialties have

already been redefined as physician services by the Physician Payment Reform Commission. On page B-1 of this report, we recommend these services be exempt from the LRI payment. Because our analysis is preliminary, we agree with both HCFA and ASPE that this issue should be studied further.

Many of HCFA's specific comments regarding the costs of implementing the LRI and the subsequent lack of program savings are predicated on HCFA's need to maintain exhaustive laboratory information to enforce CLIA. This need cannot be realistically met under the LRI. As stated previously, we believe there are alternatives to maintaining discrete laboratory claim information. Should discrete laboratory information be necessary to enforce CLIA, the costs of developing and maintaining a new system for collecting this data should be offset by the CLIA user fees.

The HCFA states that a large portion of program savings that would result from the LRI come from reinstating co-insurance on laboratory tests. This co-insurance proposal is included in the Fiscal Year 1992 President's Budget. If legislation is enacted to reinstate the co-insurance, HCFA believes the savings from the LRI will be virtually eliminated. The HCFA's analysis of potential savings is incomplete and fails to take into consideration the full scope and sources of savings under the LRI. As shown on page 2 of this report, we calculated no program savings for 1992 because our formula is budget neutral for the year of implementation. However, in the four succeeding years, savings of \$5 billion could be realized. This is in addition to the administrative and co-insurance savings.

Finally, HCFA believes that it would be difficult, if not impossible, to develop laboratory payment reform while implementing Physician Payment Reform and other laboratory initiatives, such as CLIA and the prohibition on laboratory referrals from physician who have ownership interests.

We appreciate the enormous responsibilities and administrative complexities facing HCFA at this time. However, we do not believe that researching the LRI would interfere with current HCFA initiatives. Once implemented, the management of the LRI is compatible with the methodologies HCFA will need to employ to update the relative values required for physician payment under RBRVS. Relative values for physician services are to be updated at least every 5 years. Under the LRI, the cost of securing laboratory work would be considered practice overhead cost. When the relative values for a physician specialty are adjusted, these overhead costs would be taken into consideration and any inequities in the LRI adjusted at that time.

We believe the LRI is a viable concept for controlling laboratory expenditures and thus continue to recommend that HCFA research and develop it.