



Excess Deaths per 100 Patients		Death Rates, Adjusted for Patient Traits			Smallest Sample Size Analyzed	# Patients per Doctor		# Medicare Patients Treated by Highest-volume Providers, 2012	
		Low-volume Doctors	Mid-volume Doctors	High-volume Doctors		Low-volume	High-volume	Top	2nd
Cancer: Full or Partial Organ Removal, Medicare 1998-99									
10	Remove Esophagus	19%	13%	9%	446	1	>6	29	22
10	Remove Pancreas	15%	9%	5%	923	1	>4	36	36
1	Remove Lung	6%	6%	5%	7,668	<7	>17	40	31
2	Remove Bladder	6%	5%	3%	1,406	1	>3.5	39	31
Heart Operations, Medicare 1998-99									
3	Aortic Valve Replacement	9%	8%	7%	13,839	<22	>42	130	123
2	Abdominal Aortic Aneurysm, Elective	6%	5%	4%	13,039	<8	>17.5	61	57
1	Coronary Artery Bypass Graft (CABG)	5%	4%	4%	73,354	<101	>162	210	186
1	Cut Plaque from Carotid (Endarterectomy)	2%	1%	1%	44,436	<18	>40	47	47
Heart Attacks, Ontario 1992-98									
5	Deaths <1 Year after Heart Attack	24%	21%	20%	25,074	<6	>24	116	97
4	Deaths <30 Days after Heart Attack	15%	13%	12%	25,074	<6	>24	116	97
Joint Replacement, Medicare Patients									
	Poor Knee Function after Replacement	20%		10%	400?	<13	>50	434	411
	Hip Replacement Recurs	4.5%		3.5%	15,106	<12	12+	226	206
Hernia Recurrence in 2 Years, 14 US Veterans Hospitals, Laparoscopic									
	Hernia Recurs, Older Laparoscopic Surgeons 45+	18.3%		2.6%		Lifetime Patients		97	82
	Hernia Recurs, Younger Laparoscopic Surgeons <	3.4%		5.8%		<250	250+	97	82
Hernia Recurrence, US Veterans Hospitals, Not Laparoscopic									
	Hernia Recurs, Trainees in Open Surgery	6.4%	3.0%	1.1%	172	Years Post-graduate Training		63	44
						<2	>3		