

Healthcare and Medical Practices in the US (美国的医 疗保健和行医模式) -Group Practice (集团行医)

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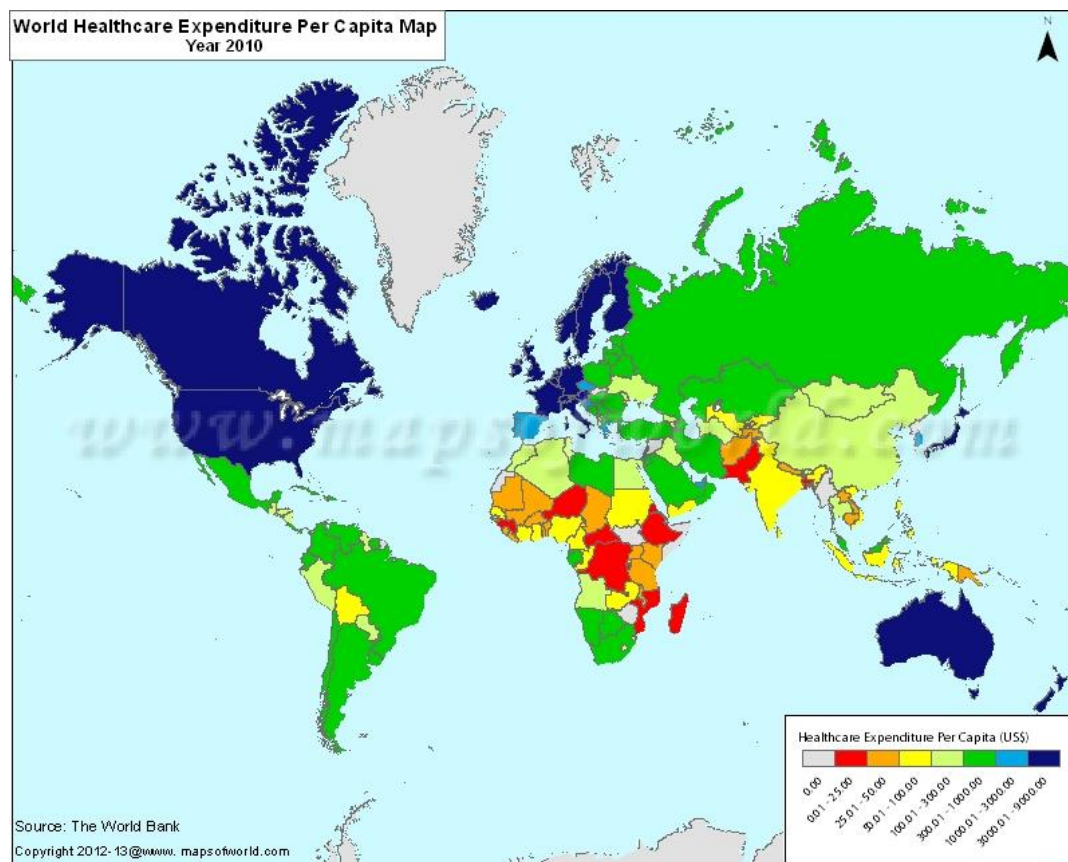
- This lecture is based on personal thinking, not representing any organization or institution。
- 此讲座只是个人见解，并不代表任何组织或机构。

- Whenever the art of medicine is loved, there is also a love of humanity.
- (热爱医学，热爱人类)
 - Hippocrates, 460 – 370 BC
- It is not from the benevolence of the butcher, the brewer, or the baker that we expect our dinner, but from their regard to their own interest.
- (我们的晚餐不是来自屠夫，酿酒师或者面包师的善心，而是他们对自己的利益的考量。)
 - Adam Smith, 1723 -1790 AC

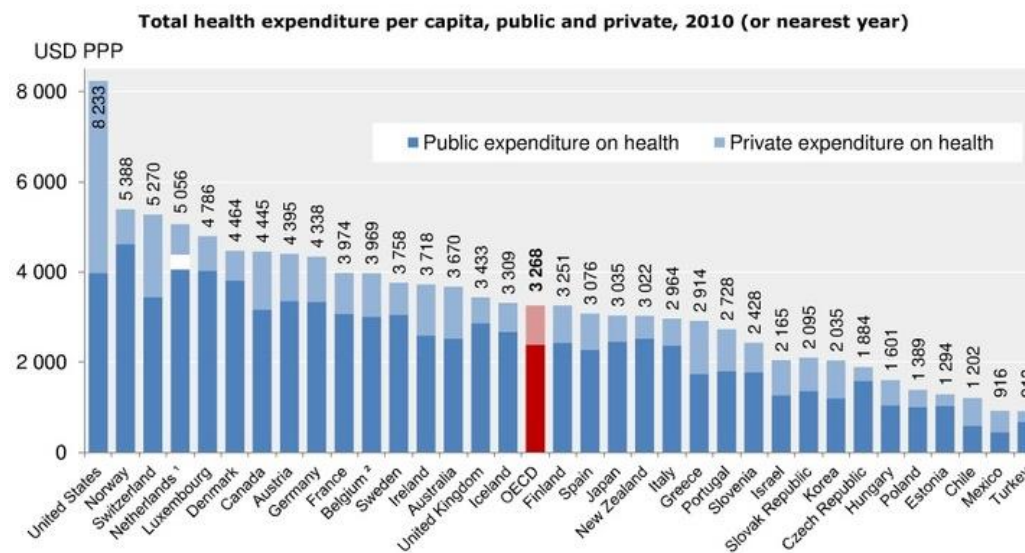
Healthcare in the US (美国医疗保健)

- The best and the worst in the world (世界上最好和最差)
 - Highest spending per capita (每个国民花销最高)
 - A comprehensive/European 2007 study found the five-year cancer survival rate was significantly higher in the U.S. than in all 21 European nations studied, 66.3% vs 47.3% for men and 62.9% versus 52.8% for women (2007年欧洲研究显示5年癌症总体存活率美国高于欧洲)
 - More Nobelists in Medicine and physiology than the rest of the world combined (美国在医学诺贝尔奖的总数高于世界其它地方的总和)
 - Produces more than 80% of innovative therapies in the world (世界80%以上的新医疗手段来自美国)
 - The best equipped hospitals in the world (有世界上装备最好的医院)
- But the uninsured rate among U.S. adults was 11.9% for the first quarter of 2015 (截至2015年一季度, 11.9%的人没有医疗保险)
- A 2004 OECD report stated: "With the exception of Mexico, Turkey, and the United States, all OECD countries had achieved universal or near-universal (at least 98.4% insured) coverage of their populations by 1990 (到1990年, 经合组织中, 除了墨西哥, 土耳其和美国, 其它国家已取得全民健保)

Healthcare Expenditure in the World and the US (美国和世界的医疗支出)



US spends two-and-a-half times the OECD average

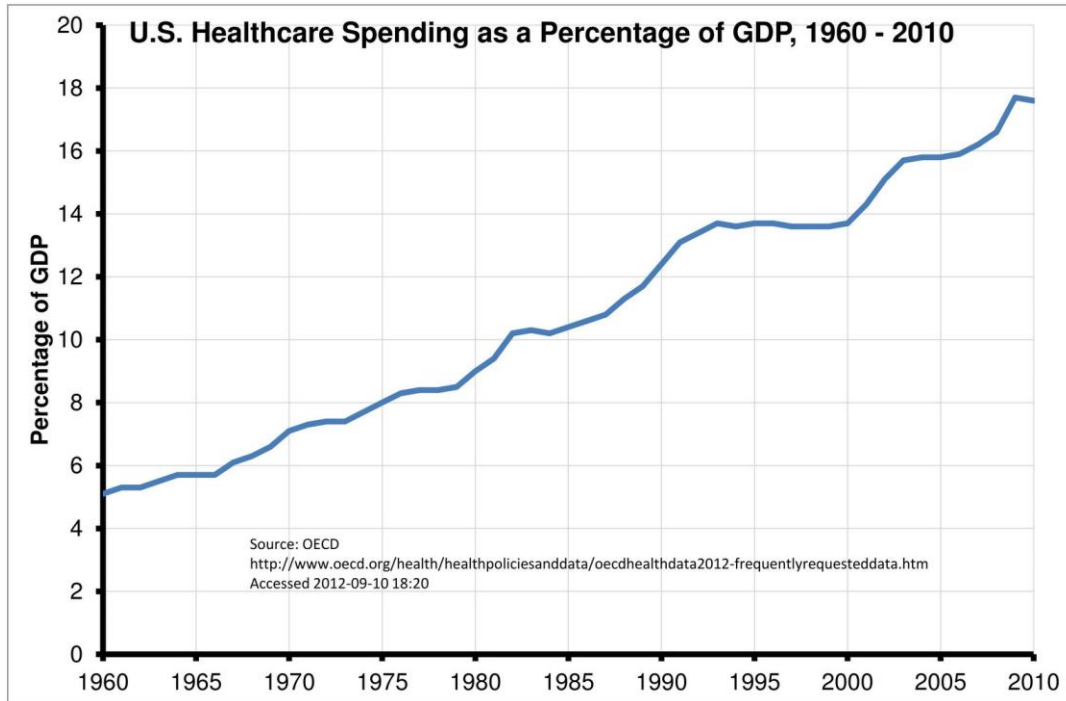


1. In the Netherlands, it is not possible to clearly distinguish the public and private share related to investments.
2. Total expenditure excluding investments.
Information on data for Israel: <http://dx.doi.org/10.1787/888932315602>.

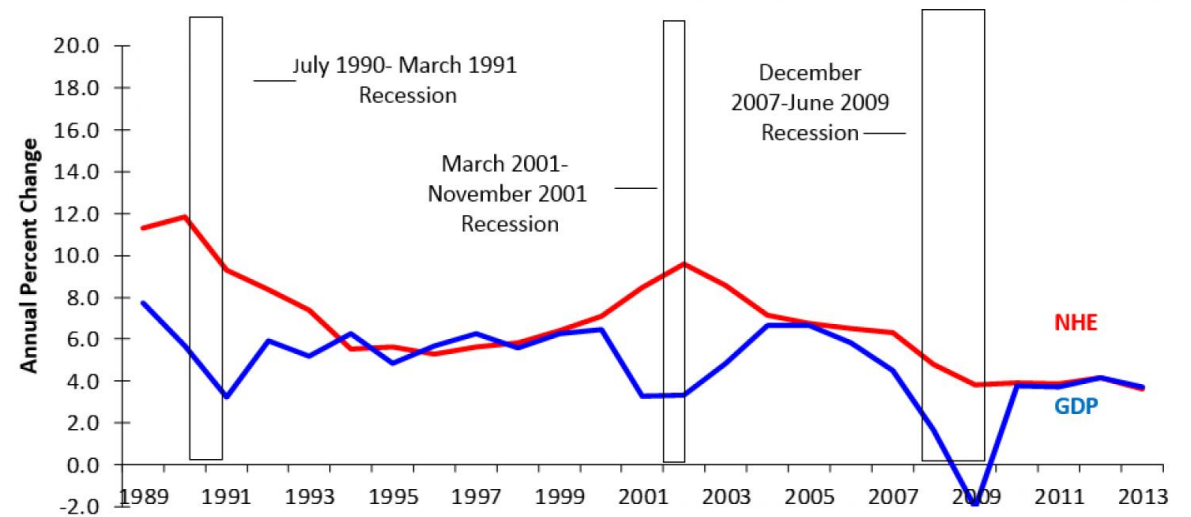
Source: OECD Health Data 2012.

- 2010 在美国人均医疗支出是\$8,233. 是经合组织平均的2.5倍。

Healthcare Expenditure and GDP in US (美国医疗支出和国民总产值)



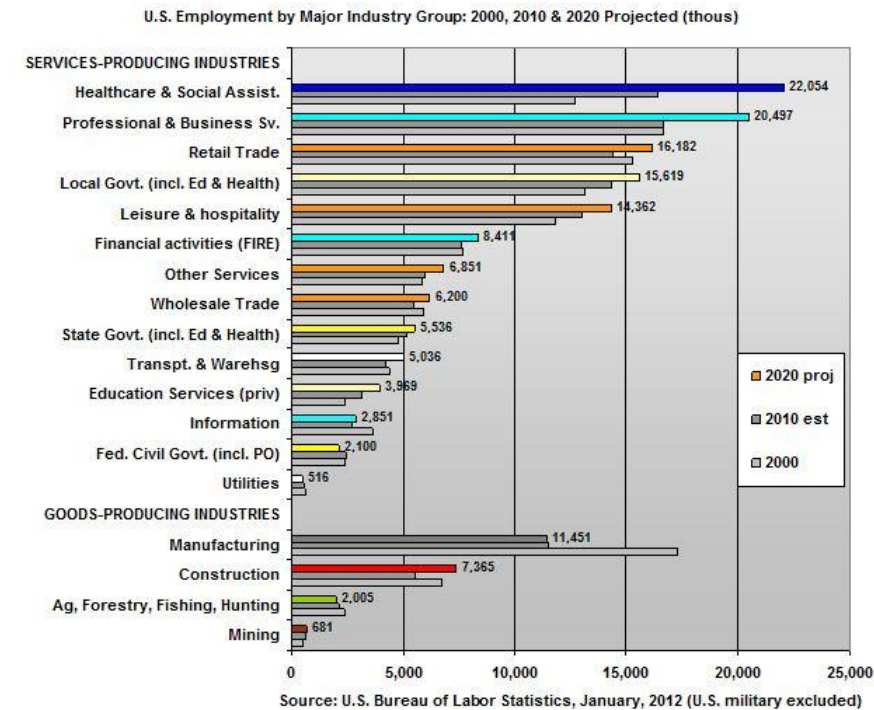
Growth in National Health Expenditures and Gross Domestic Product (GDP), 1989-2013



- Consecutive annual increase over 50 years until 2010, reaching 2.9 billion or 17.8% of total GDP.
- In the past 3 years, the percentage of annual increase in healthcare expenditure was the same as the increase in GDP
- (连续50年增长, 在2010达到GDP17.8%. 过去3年的增长率和GDP的增长率持平.)

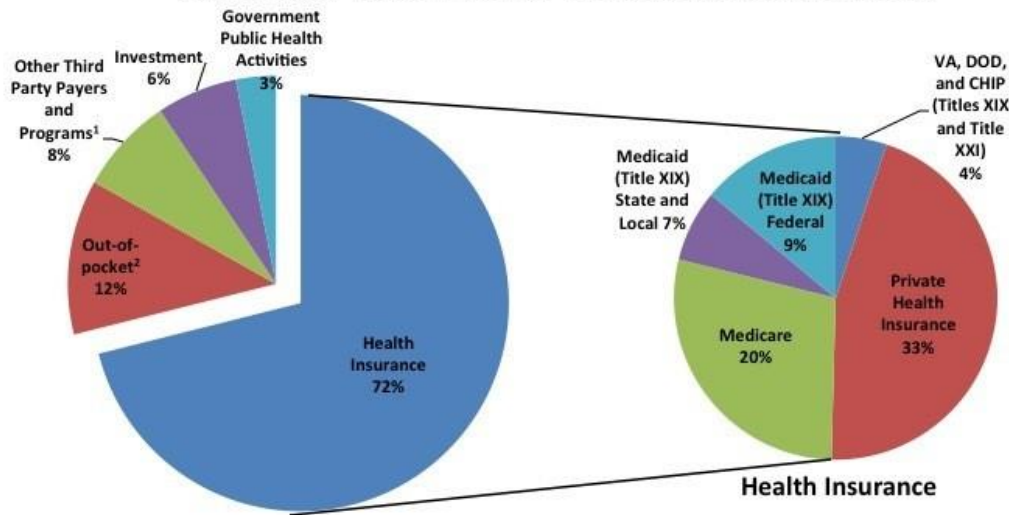
How to Look at Healthcare Expenditures (任何看待医疗支出)

- It once was, still is and continuously will be a national debate. (曾经，现在，和将来继续是个国家性的辩论。)
- A good or bad thing? (好事还是坏事?)
- A shifting paradigm of the economy. (一个变化中的经济模式。)
- Matches the fundamental goals of economic development, making people healthier and live longer (符合经济发展的最终目的，让人类更健康 and 长寿。)
- Healthcare produces most new jobs. (医疗创造出更多工作。)



Healthcare Expenditures in US (美国医疗支出)

The Nation's Health Dollar (\$2.9 trillion),
Calendar Year 2013: Where It Came From



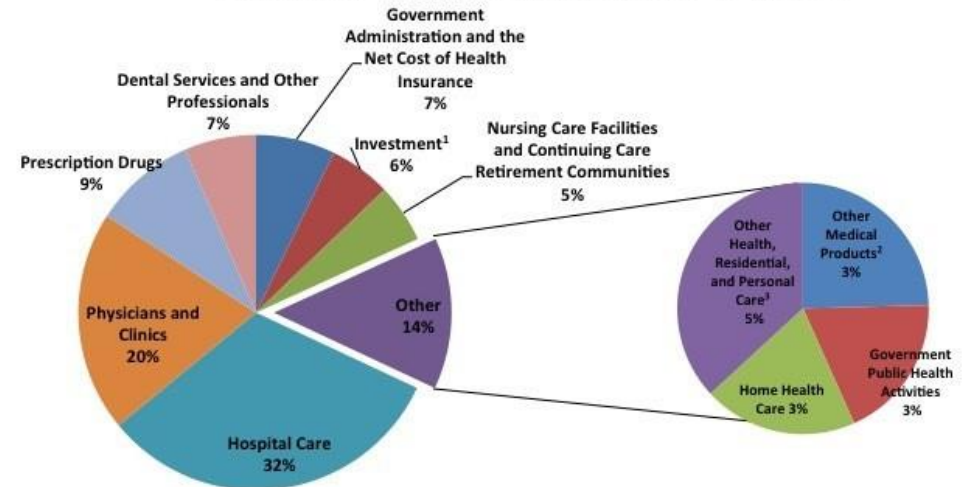
¹ Includes worksite health care, other private revenues, Indian Health Service, workers' compensation, general assistance, maternal and child health, vocational rehabilitation, Substance Abuse and Mental Health Services Administration, school health, and other federal and state local programs.

² Includes co-payments, deductibles, and any amounts not covered by health insurance.

Note: Sum of pieces may not equal 100% due to rounding.

SOURCE: Centers for Medicare & Medicaid Services, Office of the Actuary, National Health Statistics Group.

The Nation's Health Dollar (\$2.9 Trillion),
Calendar Year 2013: Where It Went



¹ Includes Research (2%) and Structures and Equipment (4%).

² Includes Durable (1%) and Non-durable (2%) goods.

³ Includes expenditures for residential care facilities, ambulance providers, medical care delivered in non-traditional settings (such as community centers, senior citizens centers, schools, and military field stations), and expenditures for Home and Community-based Waiver programs under Medicaid.

Note: Sum of pieces may not equal 100% due to rounding.

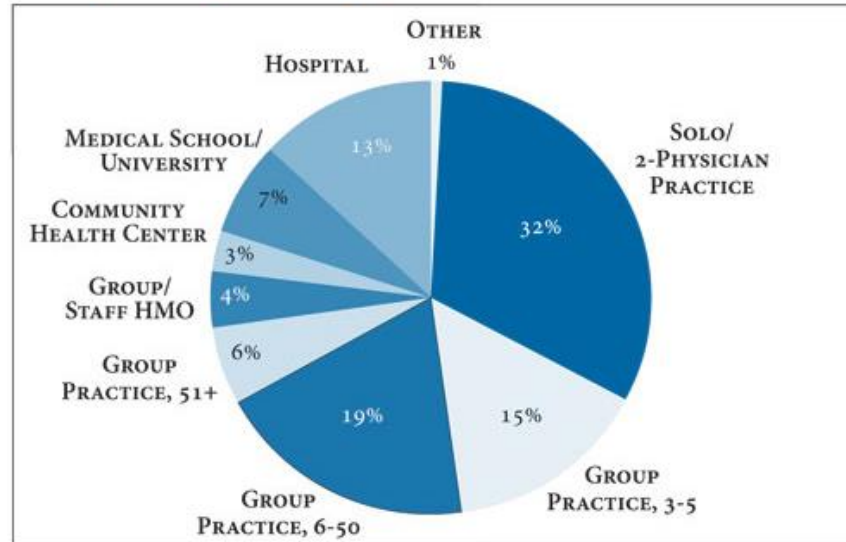
SOURCE: Centers for Medicare & Medicaid Services, Office of the Actuary, National Health Statistics Group.

- 来源和支出源
- In 2013, the total expenditure was 2.9 trillion (2013的总支出是2.9兆美元)
- \$9,255 per capita (平均每人是\$9,255美元)

Medical Practice Types (行医模式)

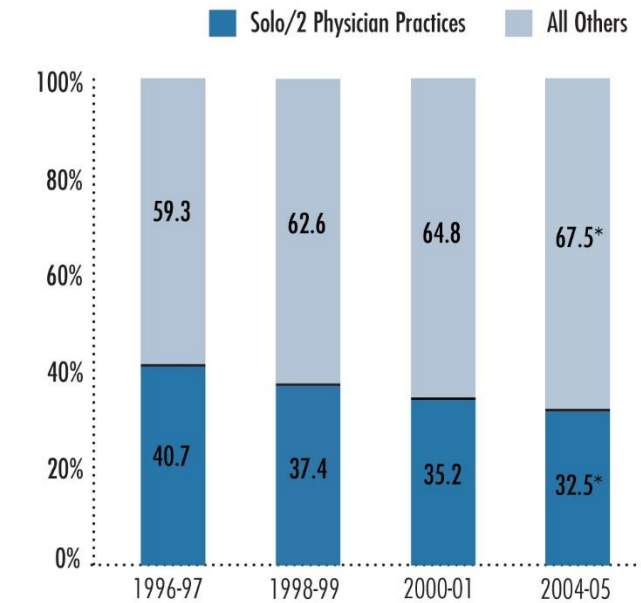
- Most advanced and oldest types co-exist (最现代和最古老的并存)
 - Started as apprentice/solo practice in 1700's
 - Solo practitioners, down to 18.8% in 2013 from 32% in 2008 (单人行医者, 从2008年的32%下降到2013年的18.8%)
- Best regarded academic practice (最好的学术医疗)
- Net-worked/integrated group practices (集成并网集团医疗)

U.S. Physicians by Practice Type, 2008



Source: HSC 2008 Health Tracking Physician Survey

Figure 1: Physicians in Solo/Two-Physician Practices vs. All Other Practice Settings, 1996-97 to 2004-05



* Change from 1996-97 is statistically significant at $p < .001$.

Source: HSC Community Tracking Study Physician Survey

Academic Medicine (学术医疗)

- Academic medical centers are viewed as the crown jewels of American healthcare (学术医疗中心是美国医疗保健的皇冠)
 - Tertiary referral center for most advanced care (最先进的三级诊疗中心)
 - Most advanced and transformational research (最先进的/转型性的科研)
 - High-profile medical faculty (高知名的教授专家)
 - Mesmerizing inpatient and ambulatory facilities/equipments (令人羡慕的设施/设备)
- In an essence, it is group practice (但在本质上，是集团行医。)
 - Physicians work as employees, or are now forming groups to contract with medical centers (医生是雇员，但是现在医生也形成集团和医疗中心签订合同。)

Group Practice (集团行医)

- ≥ 25 professionals in the same group by CMS definition in 2012 (根据CMS的定义, ≥ 25 个医生以上是集团行医.)
- But to physicians, ≥ 3 physicians in a formal affiliation who share income, expenses, facilities, equipment and support staff (但对医生来讲, ≥ 3 个医生以上, 在一起分析收入, 花费, 设施, 设备和辅助人员, 即算是集团行医。)
- Why? (为什么集团行医?)
 - Professional need (专业的需要)
 - Market power (市场力量)
 - Economies of scale (规模经济)
 - Better quality of care (更高质量的医疗)

Ever-expanding Medical Fields (永远在扩展的医疗行业)

- Ever-expanding medical knowledge (不断扩展的医学知识)
 - A total of 8.1 million journal articles were published in MEDLINE between 1978 and 2001, and from an average of 272,344 to 442,756 per year. (从1978到2001, 总共有8.1百万的医学文章发表。从每年大约27万增加到了44万篇)
- Increasing medical specializations (不断增加的医学专业)
 - Nearly >50 specialties from the original two medicine and surgery. (目前有50多个临床专业。)
 - First group practice was formed as Mayo Clinic. (第一个集团行医是在Mayo开始的。)
- Proliferation of diagnostic/therapeutic technologies (不断发展的诊疗技术)
 - From laboratory medicine, radiology ... to genetics (从实验室, 放射, ... 到基因学)

Market Power (市场力量)

- The power of a firm/institution to set/raise the price of a good or service above the marginal cost and earn a positive profit. (市场威力就是一个公司/机构所具有的把一件商品或服务的价格设置或提高到边际成本之上，以便获利的能力。)
- A market participant, such a solo practitioner, has no market power. (一个市场参与者，比如单独开业者，是没有这种力量的。)
- To gain the market power, one needs to have the mass, control of resources, increasing returns to scale, technological superiority and barriers created to entry. (要取得这种能力，一个公司/机构就需要有一定的规模，对资源的控制，不断增加的和其规模相应的回报，技术优势，和对新加入者所设置的障碍。)
- In 1980-1990's, the movement of HMO (Health maintenance organization, i. e., insurance companies) forced lowering physician pays. (在1980-1990's，健康维护组织，也就是保险公司，压低了医生的工资。)
- The group practice started to flourish to increase mass, control the resource, increase return, and improve technologies they use. (集团行医开始发展起来，以增加规模，控制资源，提高回报和改进技术。)

Economies of Scale (规模经济学)

- Formation of medical practice groups, however, did not show significant benefits in terms of physicians pay, until the group is greater than 8-20 physicians or except certain specialties, such as orthopedics and anesthesiology. (除了个别专业，像麻醉和骨科，大部分集团行医并没有增加医生的收入，除非一个集团有8-20个以上医生。)
- Economies of scale works when the capital per unit of production is fixed. (只有当单位产品成本是固定的时候，规模经济学才起作用。)
- However, the overhead cost of forming a group increases, or the increase in inputs is greater than the one in outputs, leading to the so called decreased returns to scale. (但是，一个集团的形成会增加开销，也就是投入的增加比产出的增加要高，导致回报对其规模的减低。)
- The medical group is trending to be larger to gain increased return to scale. (所以医疗集团在不断的扩展，以增加回报。)

Successful Medical Groups, 2015 (成功的医疗集团)

Rank	Medical Group	Headquarters	State	Offices	Physicians	Physicians per Office
1	Kaiser Permanente Medical Group	Oakland	CA	719	7,304	10.2
2	Cleveland Clinic	Cleveland	OH	308	1,999	6.5
3	Mercy Clinic	Springfield	MO	522	1,735	3.3
4	Aurora Medical Group	Sheboygan	WI	267	1,193	4.5
5	North Shore Long Island Jewish Group	Syosset	NY	290	1,155	4
6	University of Washington Physicians Network	Seattle	WA	173	1,124	6.5
7	I U Health Physicians	Indianapolis	IN	259	1,076	4.2
8	UCLA Internal Medicine/Geriatrics	Los Angeles	CA	176	1,005	5.7
9	Novant Medical Group	Winston Salem	NC	339	1,003	3
10	Palo Alto Medical Foundation Clinic	Santa Cruz	CA	95	988	10.4
11	Scott & White Clinic	Temple	TX	151	952	6.3
12	Carolinas Physicians Network	Charlotte	NC	210	887	4.2
13	University of Wisconsin Health Clinics	Madison	WI	142	849	6
14	Henry Ford Medical Group	Detroit	MI	135	848	6.3
15	Emory Clinic	Atlanta	GA	150	823	5.5
16	Yale Medical Group	New Haven	CT	191	805	4.2
17	Allina Health Medical Clinic	Coon Rapids	MN	79	794	10.1
18	Northwestern Medical Group	Chicago	IL	101	791	7.8
19	Intermountain Medical Group	Salt Lake City	UT	170	788	4.6
20	Pediatrix Medical Group	Fort Worth	TX	149	774	5.2

Successful Medical Groups, 2015 (成功的医疗集团)

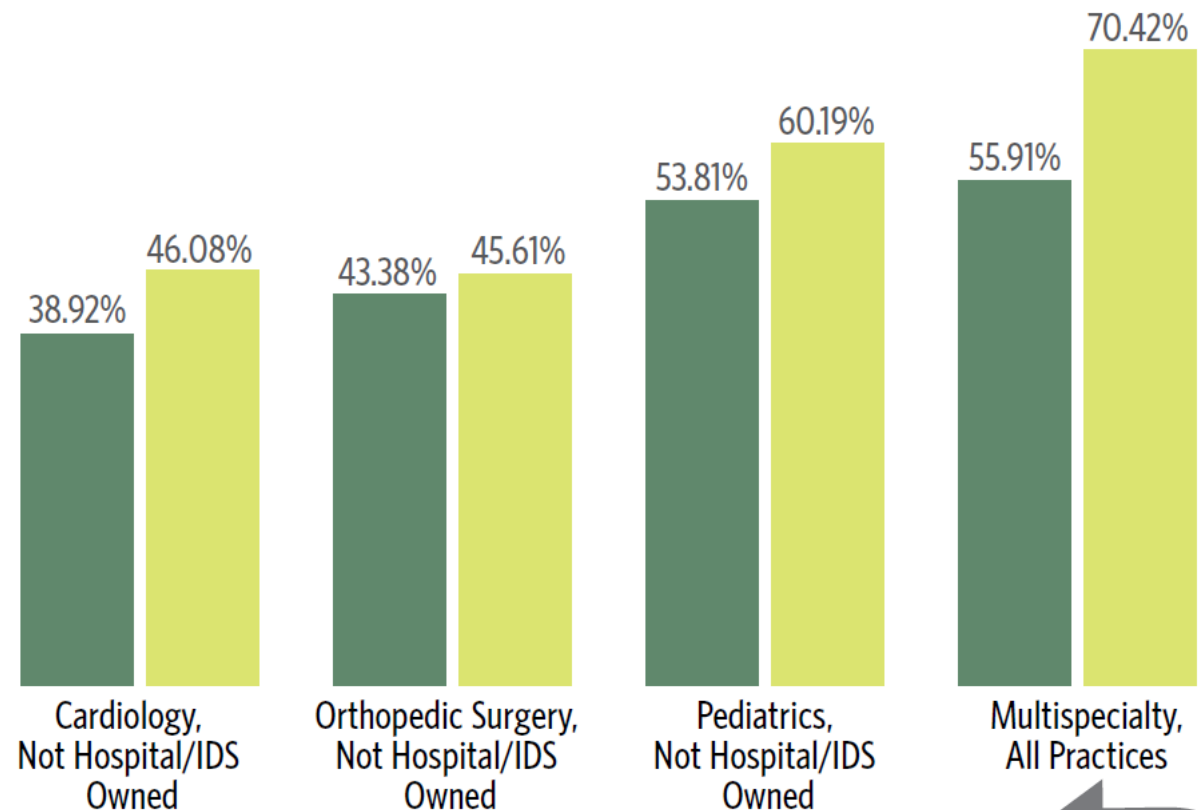
20	Pediatrix Medical Group	Fort Worth	TX	149	774	5.2
21	Umass Memorial Medical Group	Worcester	MA	150	766	5.1
22	NorthShore Uni Health System Me	Skokie	IL	156	722	4.6
23	Geisinger Medical Group	Danville	PA	203	720	3.5
24	Duke University Affiliated Physicians	Durham	NC	191	706	3.7
25	Ochsner Clinic	New Orleans	LA	138	681	4.9
26	Advocate Medical Group	Park Ridge	IL	163	650	4
27	Swedish Medical Group	Seattle	WA	135	640	4.7
28	University of Minnesota Physicians	Minneapolis	MN	119	637	5.4
29	UC Davis Medical Group	Roseville	CA	76	631	8.3
30	Providence Medical Group	Monroe	WA	156	616	3.9
31	Marshfield Clinic	Marshfield	WI	66	613	9.3
32	Froedtert Hospital & the Medical College of Wisconsin	Milwaukee	WI	101	609	6
33	University Medical Group	Greenville	SC	125	603	4.8
34	Fresenius Medical Group	Waltham	MA	254	601	2.4
35	Children's Hospital of Philadelphia Care Network	Burlington	NJ	120	597	5
36	Dartmouth-Hitchcock Clinic	Manchester	NH	112	591	5.3
37	TeamHealth	Tampa	FL	154	583	3.8
38	Davita Dialysis	Denver	CO	177	582	3.3
39	Medical University of South Carolina	Charleston	SC	149	575	3.9
40	UnityPoint Clinics	Johnston	IA	201	572	2.8
41	Washington University Physicians	Saint Louis	MO	99	564	5.7
42	California Emergency Physicians	Pomona	CA	94	561	6
43	Jefferson University Physicians	Philadelphia	PA	107	555	5.2
44	Harvard Vanguard Medical Associates	Boston	MA	46	554	12
45	University of Florida Physicians	Gainesville	FL	112	547	4.9
46	Lehigh Valley Physicians Group	Allentown	PA	137	545	4
47	Mayo Clinic	Jacksonville	FL	34	545	16
48	Duluth Clinic	Duluth	MN	130	539	4.1
49	Park Nicollet Clinic	Burnsville	MN	78	538	6.9
50	Banner Medical Group	Greeley	CO	123	527	4.3

Factors Defining Successful Medical Group Practice (成功因子)

- Management (管理)
 - Decrease operating cost (减低运营成本)

Total Operating Cost
as a Percentage
of Total Medical
Revenue

■ Better-Performing Practices
■ Other Practices



Factors Defining Successful Medical Group Practice (成功因子)

- Staffing (人員配置)

Total Support Staff per FTE Physician

Primary Care
Single Specialties



Surgical
Single Specialties



Multispecialty,
All Practices



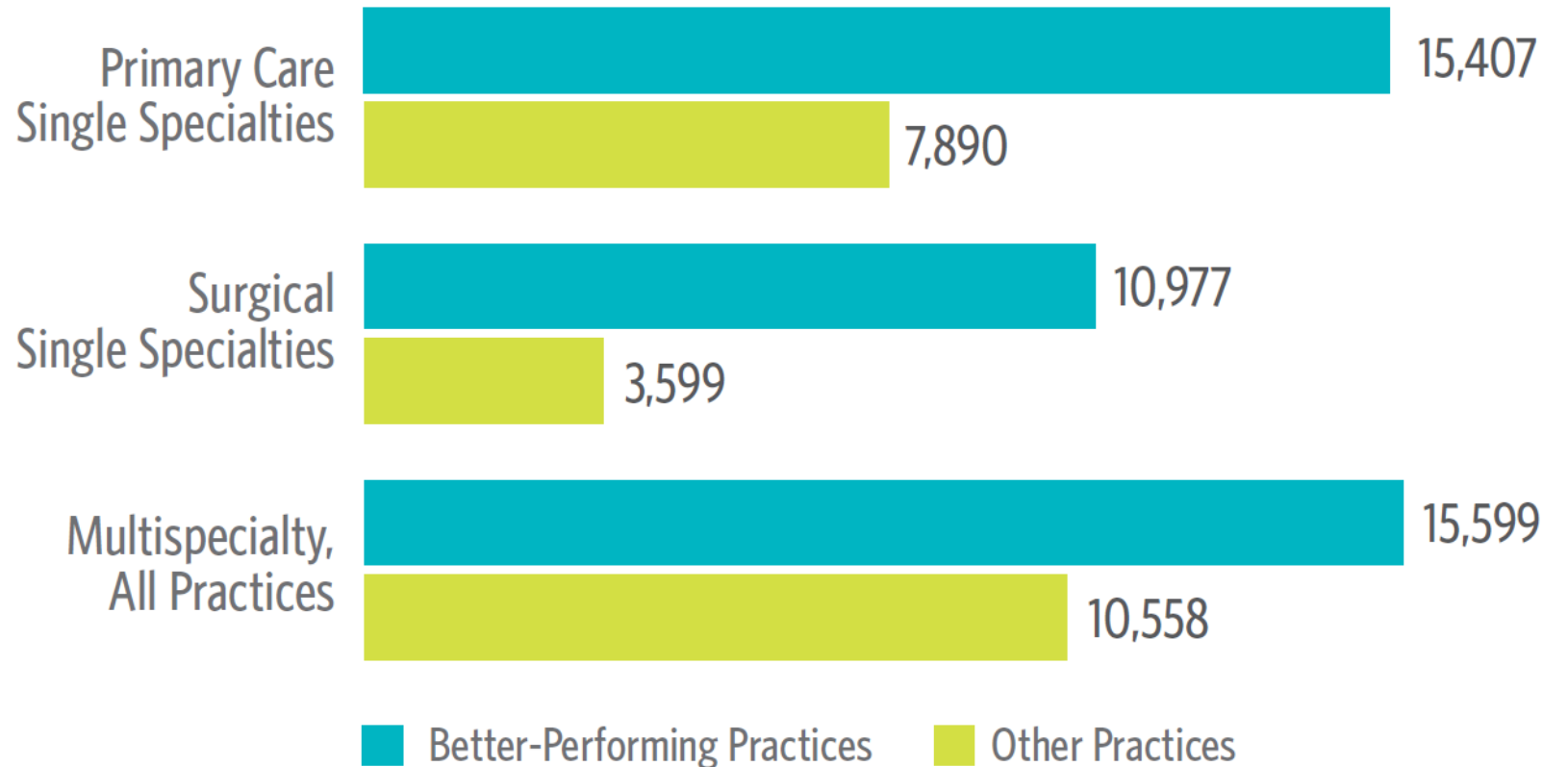
Better-Performing Practices

Other Practices

Factors Defining Successful Medical Group Practice (成功因子)

- Productivity
- (生产效率
• 全职医生手术数量)

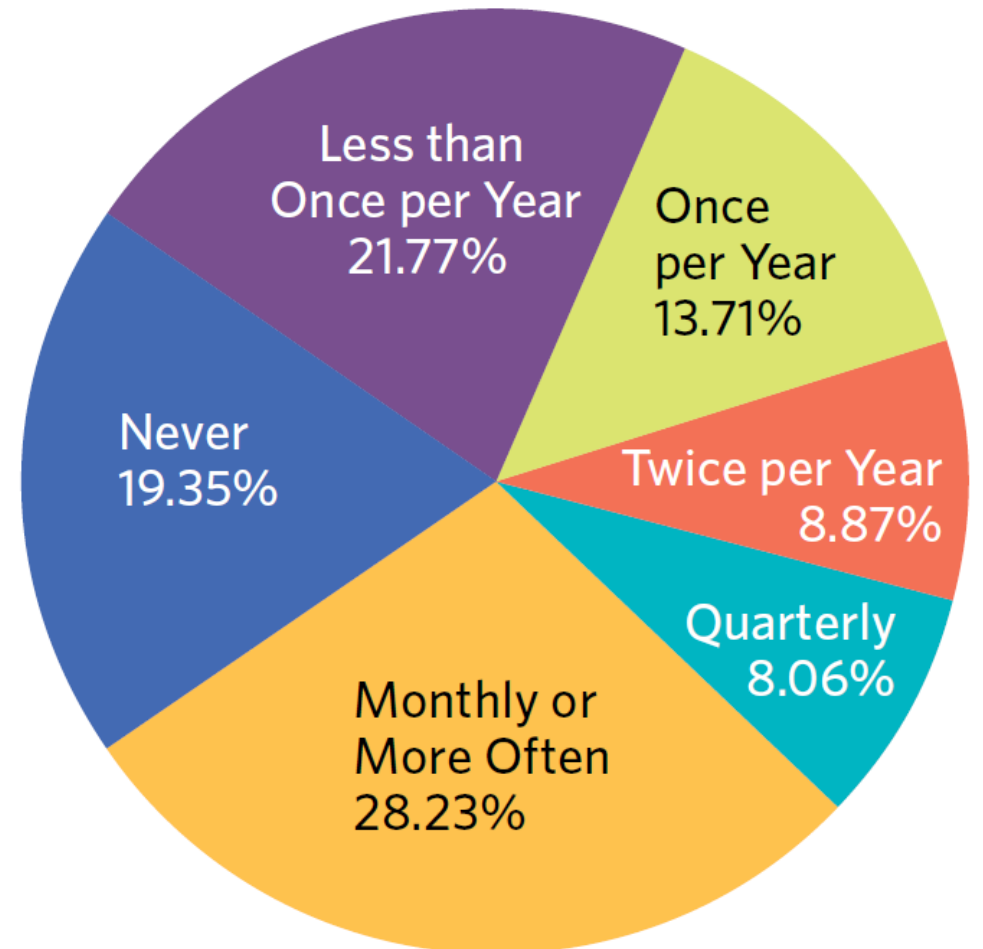
Total Procedures per FTE Physician



Factors Defining Successful Medical Group Practice (成功因子)

- Patient Survey
- (病人满意度调查
 - 成功医疗集团的调查频率)



Patient Satisfaction Assessment Survey Frequency, Better-Performing Practices

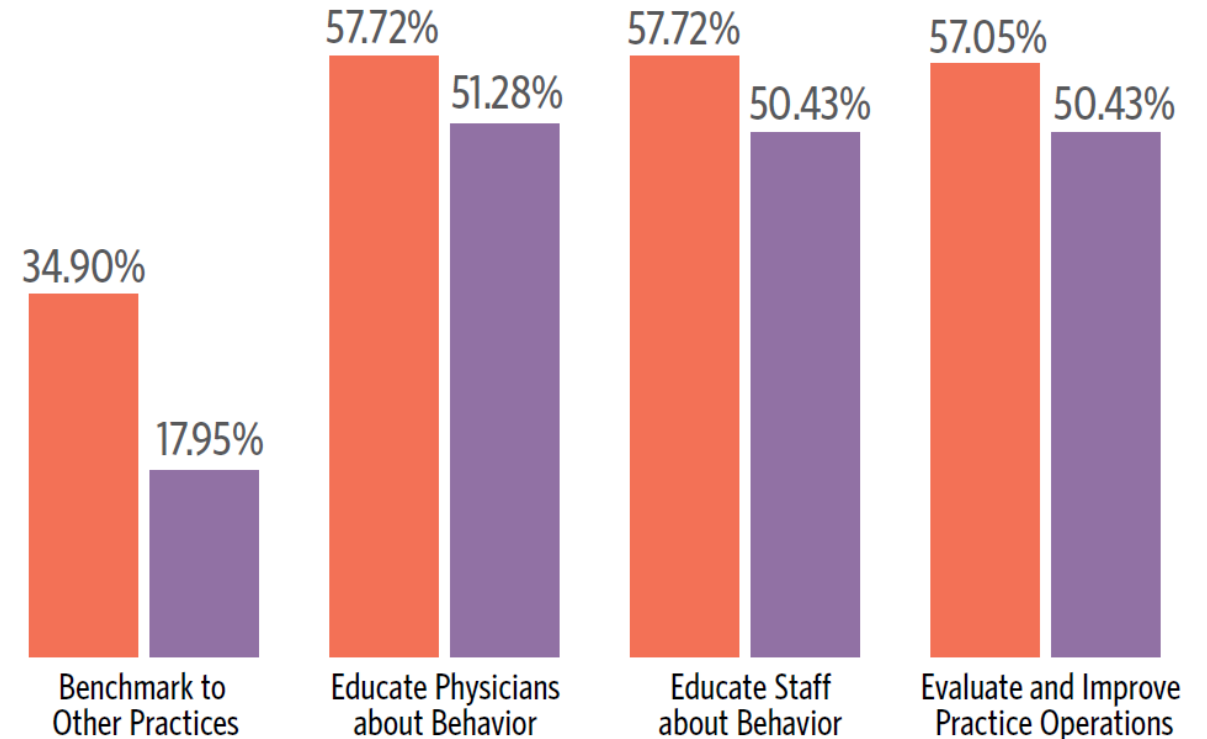


Factors Defining Successful Medical Group Practice (成功因子)

- Utilization of Patient Survey (病人调查的应用)

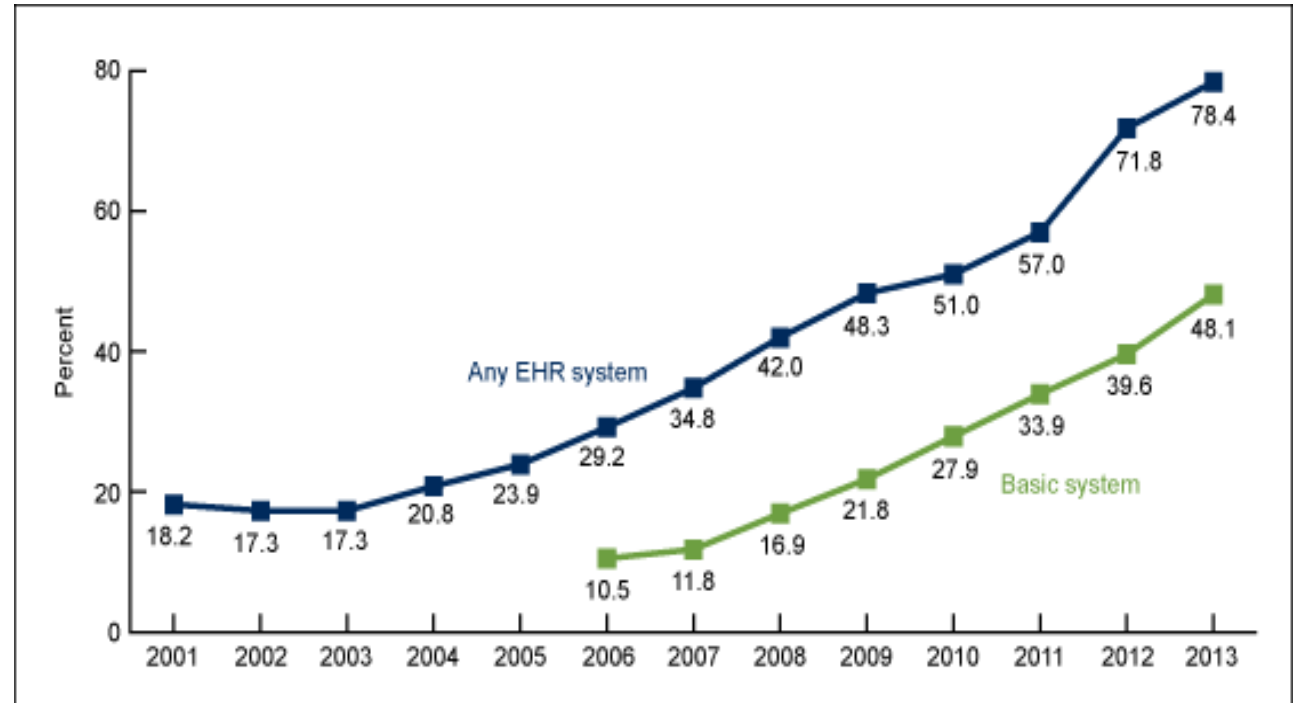
How Patient Satisfaction Survey Results are Used

 Better-Performing Practices
 Other Practices



Factors Defining Successful Medical Group Practice (成功因子)

- Electronic Medical Records
- (电子病历)
 - Increases productivity (增加生产效率)
 - Decreases overhead (减低开销)
 - Decreases errors (降低错误)
 - Increases correct coding/billing (正确疾病编码和医疗保险收费)





Kaiser Permanente Model (凯撒模式)

- First founded in 1945 by industrialist Henry J. Kaiser and physician Dr. Sidney Garfield, although two have worked on providing health care to Kaiser industry workers since 1933. (于1945由工业家Henry J. Kaiser和Sidney Garfield医生共同建立。他们两人的合作始于1933。)
- Consists 2 interdependent structures: (由2个相互独立，但又合作的机构组成)
 - Kaiser Foundation Health Plans (KFHP): (凯撒基金健康计划保险)
 - offer prepaid health plans and insurances to employers, employees and individual members (给雇主，雇员或个人提供预付的保险计划)
 - Provide infrastructures for and invest in Kaiser Foundation Hospitals and Clinics (给凯撒基金医院和门诊提供设施和再投资)
 - Contracts exclusively with Permanente Medical Group (只和Permanente医疗集团签约)
 - Kaiser Foundation Hospitals and Clinics: (凯撒基金医院和门诊)
 - Provides the sites for Permanente Medical Groups (给Permanente医疗集团提供行医场所)
 - Manages nursing/support staff (管理护理和附属人员)
 - Permanente Medical Groups: (Permanente医疗集团)
 - Provides medical cares exclusively for KFHP members (只给KFHP成员提供医疗)
 - Negotiates a budget with KFHP for physicians salaries, benefits and profits (和KFHP商定预算，以保证医生的工资，福利和红利)

Kaiser Permanente Model (凯撒模式)

- The 2 structures are interdependent, collaborative and inclusive (2个机构相互依赖, 协作, 和包容)
- The KFHP and Hospitals are not-for-profit (KFHP和医院是非营利性的)
 - In 2014, 9.6 million members (to 7/2015, 10.1 million), \$3.1 billion in net income on 56.4 billion operating revenues (到2015年七月, 有一千零十万会员。在2014年, 营运额564亿, 纯收入31亿)
 - 38 medical centers and >700 medical offices (38个医疗中心, >700多个门诊部)
- Decreases/eliminates the intermediate mechanisms between the KFHP and physicians, reducing overhead (减少/消除了KFHP和医生间的中间环节, 所以减少了开销)
- Emphasizes on the preventive medicine (强调预防医疗)
- Provides comprehensive medical care for total health (提供全面的医疗以保证全面健康)
- Forms a net-worked healthcare systems in a geographic region (在一个地理区域内形成一个医疗网络)
 - Clinics → medical centers emphasizing on basic cares → tertiary referral medical centers (门诊部 → 基本医疗中心 → 三级转诊医疗中心)
 - Reducing duplications in a region (减少区域内的重复)

Kaiser Permanente Model (凯撒模式)

- A pioneer in the utilization of electronic medical record system (电子病历的开拓者)
 - Started investing in EMR as early as before the end of last century (在20世纪末，即开始投资)
 - Invested 4 billion (到目前，花费达40亿)
 - Benefits all physician and health plan members (医生和病人均受益)
 - Improves coding and billing (改进了诊断编码和收费)

Kaiser Permanente Model (凯撒模式)

- The Permanente medical groups (Permanente 医疗集团)
 - Consists of 17,800 physicians nationwide in 2014 (全国 17,800 名医生)
 - 7,300 physicians in California (加州 7,300 名医生)
 - Contracts exclusively with the KFHP (只和 K F H P 签约)
 - For profit (是赢利性的)
 - Negotiates budget with KFHP (和 K F H P 协商预算)
 - Salary is not the best, but 70-80th percentile in the nation (工资在全国 70 — 80 百分位)
 - Profits are distributed as bonus at the end of the year (年终赢利分红)
 - All physicians are required to be board certified (所有医生必须有专业认证)
 - Performance is evaluated based on national guidelines and patient survey (根据国家专业指南和病人调查评定医生的工作)
 - Permanente Federation formed in 1996 to standardize patient care and performance based on national guidelines (Permanente 联盟成立于1996, 以根据国家指南来标准化病人治疗和医生的工作)

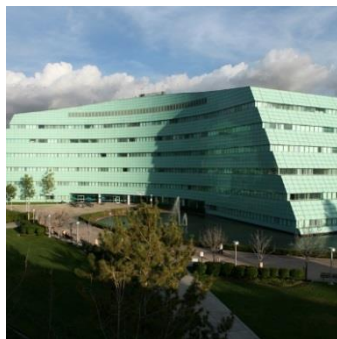
Kaiser Permanente Model (凱撒模式)

- The Kaiser Permanente Los Angeles Medical Center was ranked #10 in California among >250 hospitals
- (凱撒洛杉磯醫療中心在加州250多所醫院中，名列第10)
- The cardiology/cardiac surgery was ranked #25 in the USA among >650 cardiology/cardiac surgery
- (心臟病和心臟外科在全美650所心臟專科中，名列第25)



Kaiser Permanente Model (凱撒模式)

- Medical Centers



Conclusions (结论)

- It is possible and necessary to practice medicine as a group
 - (集团行医是必须的和可行的)
 - It provides the physicians with market power
 - (它可以给医生提供市场力量)
 - It can manage resource more effectively
 - (它可以优化管理)
 - It can provide quality care
 - (它可以提供高质医疗)
- 集团行医， 强化医生， 优化管理， 高质医疗。

- At Kaiser Permanente, we always have been a pre-paid, capitated system.
- We control the entire health care dollar within KP, and this promotes and incentivizes a collaborative and holistic approach to maximizing health for our more than 10.1 million members.