

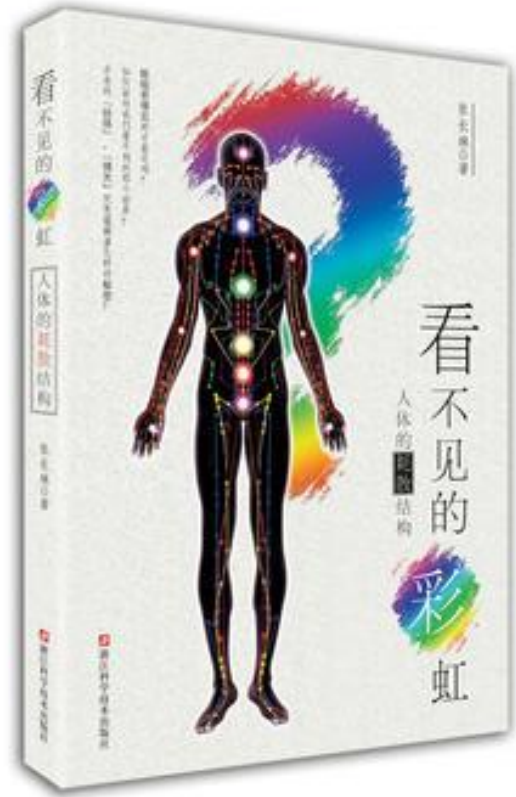
# 医疗健康数据生态 演变 与 开放

郑 杰

2015.9.19



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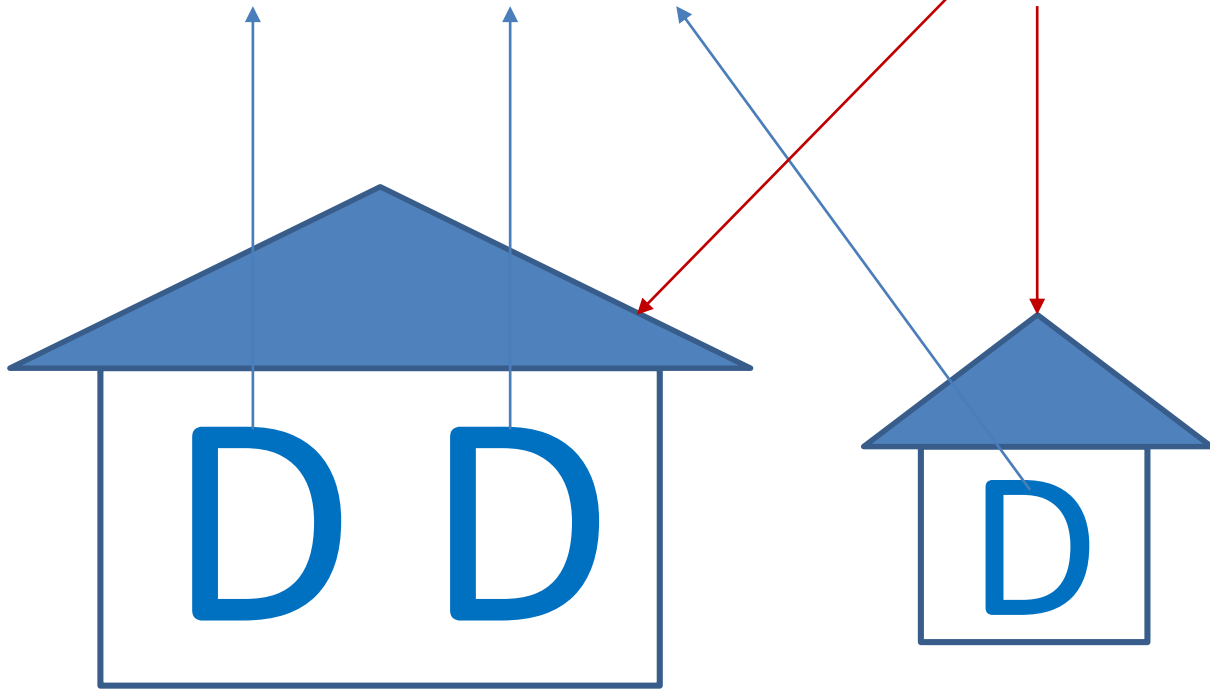
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医生组织  
一分钟诊所  
综合门诊部  
医院

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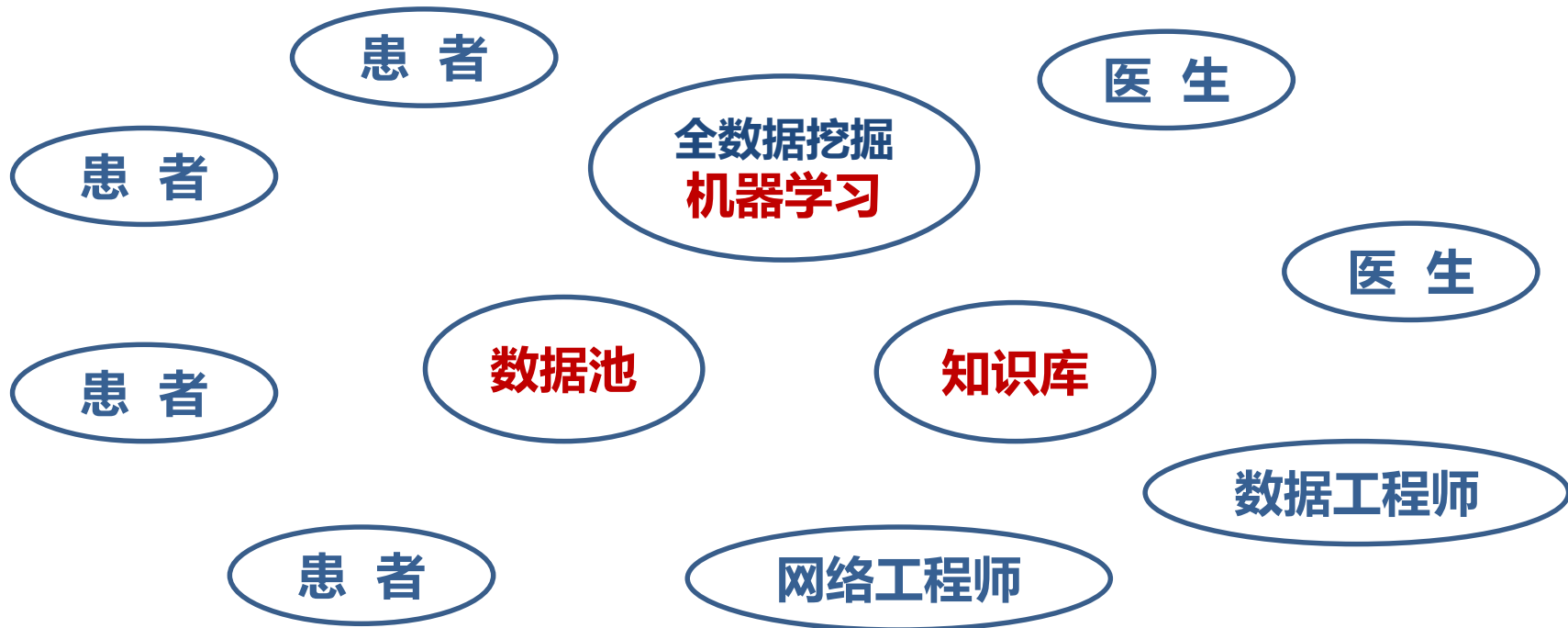
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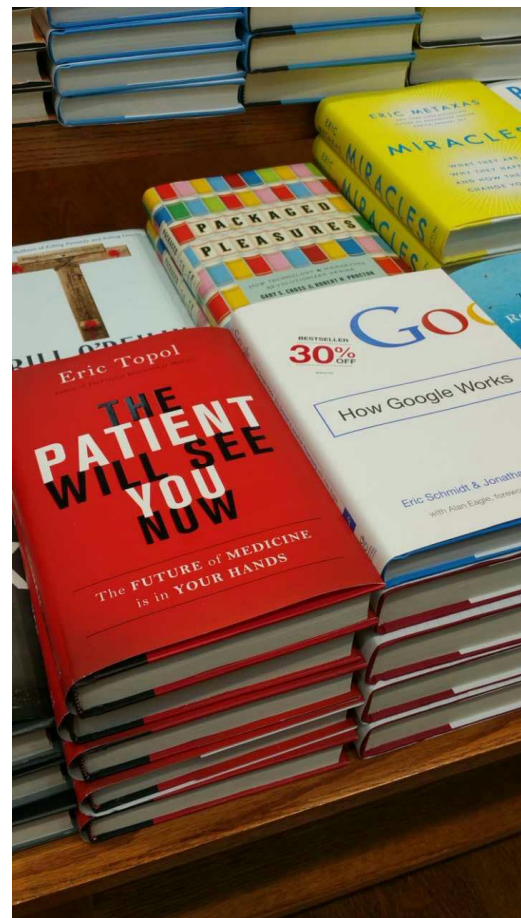
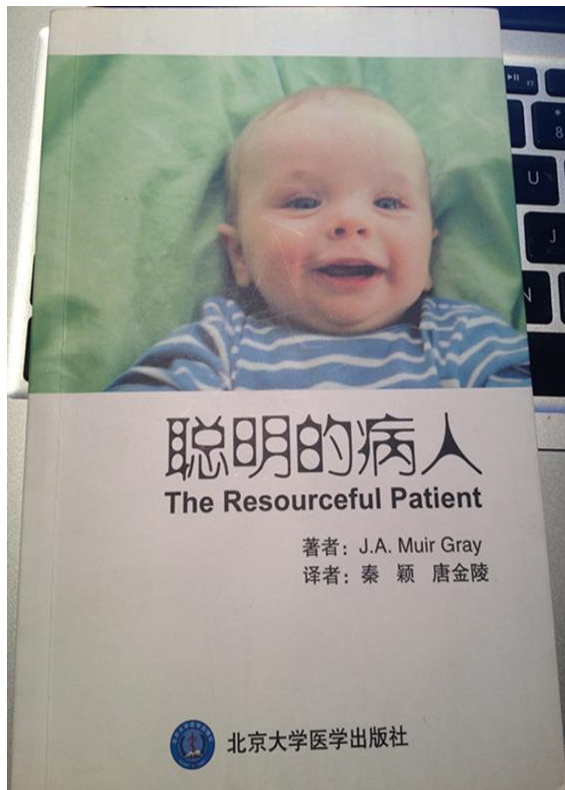


# 医学学习 的重定义

## MOOM 时代



# 医疗的民主化趋势





## Web 1.0

- “The mostly read only web”
- Focus on companies
- Homepages
- Owning content



## Web 2.0

- “The widely read and write web”
- Focus on communities
- Blogs
- Sharing content



## Web 3.0

- “The portable personal web”
- Focused on individuals
- Live streams
- Consolidation of dynamic content



## Healthcare 1.0

- Medical provider as the source of ultimate reference
- Focus on **institutions**
- Advertising



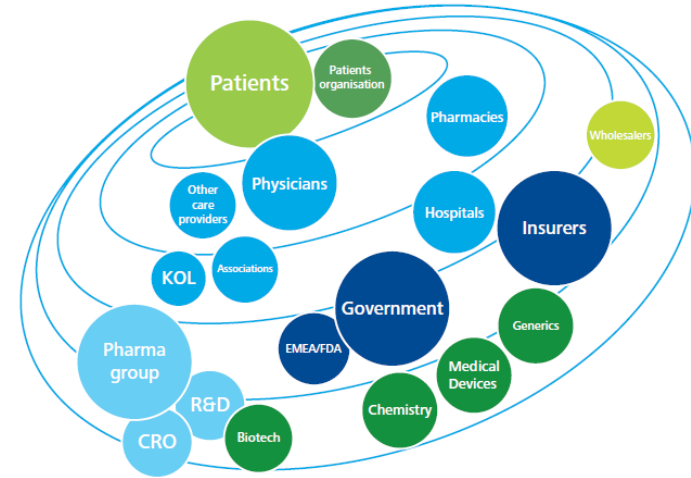
## Healthcare 2.0

- Medical provider as an advisor on health matters
- Focus on **doctors**
- Word-of-mouth recommendation



## Healthcare 3.0

- Multi-sourced influencers and enablers
- Focus on the **Consumer-Patient archetype**
- Self determination/ conclusion



# 个人生命基础 数据集

# Personal Health Records (PHR)

Defined as “a record controlled by the individual and may include health information from a variety of sources, including multiple health care providers and the patients themselves. The PHR is separate from, and does not replace the legal record of any health care provider.”


- *Office of the National Coordinator for Health Information Technology*


# PHRs


- Patient owns the accounts and controls the content
- Patient decides how and when information is shared
  - Many patients trust giving their physician access
- Patient can use PHR as a repository of all their health information
  - Not just from medical offices
  - May include data from health applications (apps)
  - May include self-entered data such as herbs, vitamins, and other home remedies

## 系统分类


 循环系统

 呼吸系统


 泌尿生殖

 神经系统

 消化系统

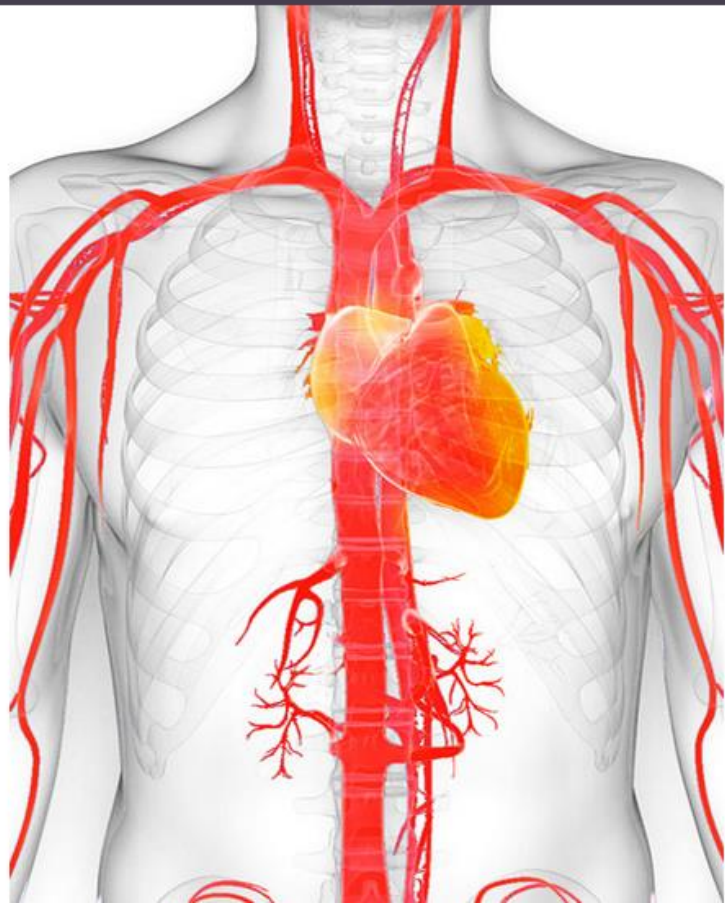
 体表肌肉

 分泌代谢

 免疫系统

 其他系统

## 图片示意




## 风险评估

低风险

大肠癌 

静脉血栓 


癫痫病 

丛集性头痛 


血脂过高症 


慢性阻塞性 

枫糖尿症 


爱迪生氏病 

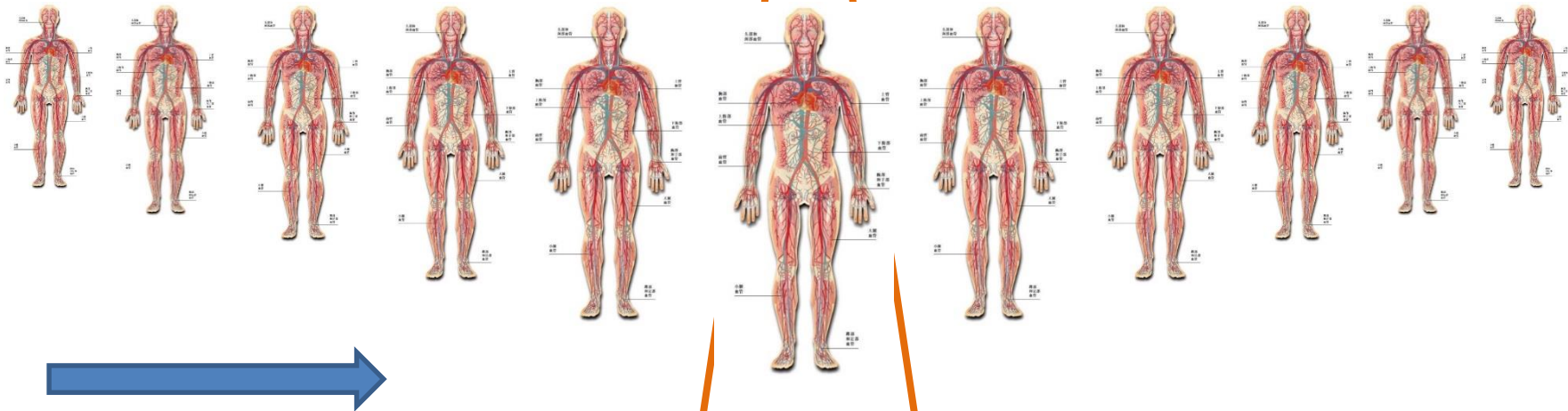
耳垢 

甲状腺癌 

弥漫性甲状 

高胱氨酸尿 





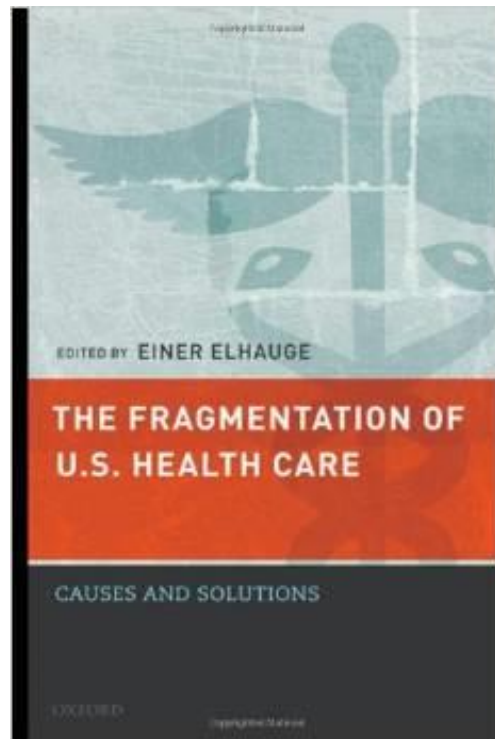
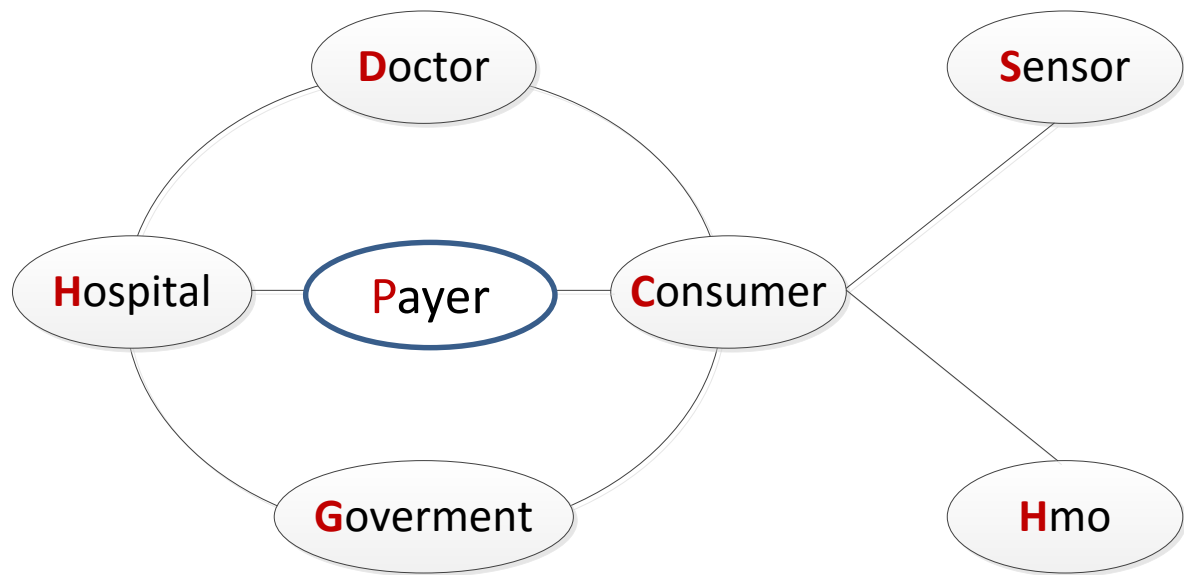
**时间尺度**

**个人一生医疗健康数据完整性**

**空间尺度**

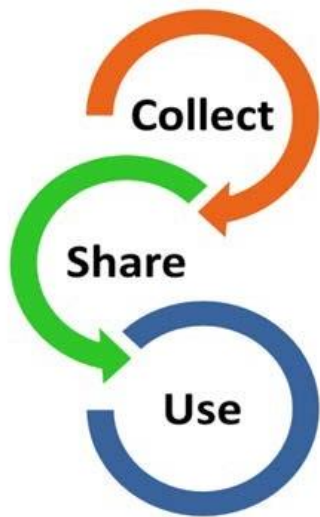
**人群样本的完整性**

# 数据驱动医疗时代的 **医疗数据碎片化分布** Fragmentation



# 美国联邦政府 医疗信息化战略规划

2015 - 2020



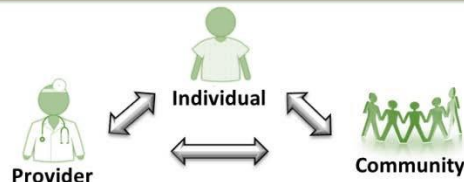
## Collect

Goal 1: Expand Adoption of Health IT



## Share

Goal 2: Advance Secure and Interoperable Health Information



## Use

Goal 3: Strengthen Health Care Delivery

Goal 4: Advance the Health and Well-Being of Individuals and Communities



Goal 5: Advance Research, Scientific Knowledge, and Innovation





Remember to ask your health care providers if they:

Use and provide access to  
**Electronic Health Records**

## Blue Button 缘起



- 2010.1.27 Markle 基金会在纽约召开主题为“**Consumer Engagement**”的会议
- 讨论了大量的 HIT 数据标准、数据保密、隐私法律、以及像“堡垒”一样的健康数据中心。
- 为了尽快提供给患者，要平衡各方在数据标准上的利益。
- 会议中心主题转为：**give patients their data**
- 会议成员，现任美国CTO – Todd Park 后来总结到：**why can't we just let an American get a copy of their own information? And don't worry about the format, don't worry about the standards.”**

# What is Blue Button?

Blue Button is a way to get your health records electronically so you can...



## Reference

your health records to be reminded when you had your last shot, or the exact date of a procedure.



## Check

the accuracy of your records, monitor changes, and stay aware of your health status.



## Share

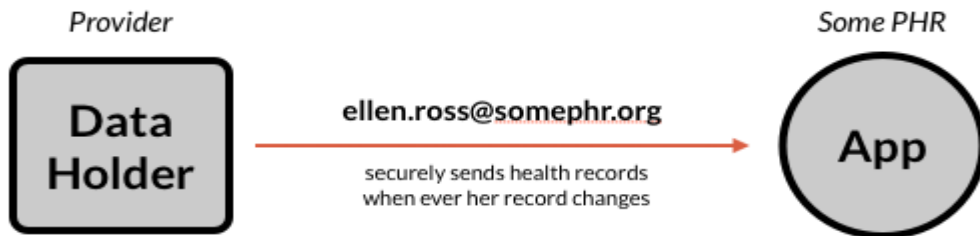
with your doctor or someone else you trust, when traveling, seeking a second opinion, moving, switching insurance, or in case of emergency.



## Use Apps

to help better manage and coordinate your healthcare to achieve your health goals.

# 国家开源医疗项目 - Direct



- Direct 项目由美国卫生信息协调办公室发起的开源项目  
<http://directproject.org/>
- 工作组使用维基、博客和讨论列表进行每周及每月的会议协同，有来自50个单位的200+ 的参与者来共同实现

# Your Health Information Rights

- Right to access your health information
- Right to an accounting of disclosures of your health information
- Right to correct or amend your health information
- Right to notice of privacy practices
- Right to file a complaint

# Lets Do It !



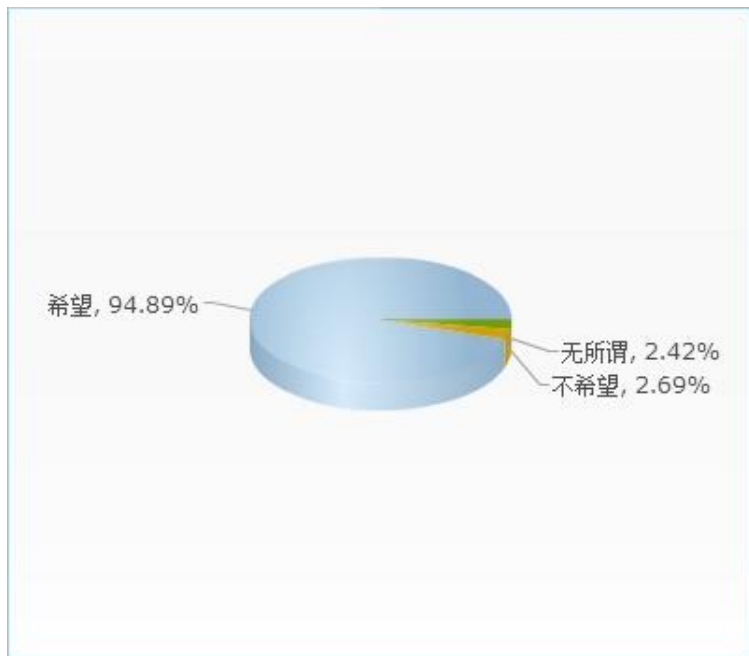
开放是态度 分享是精神 开源是手段 协作是形式

# OMAHA 的愿景

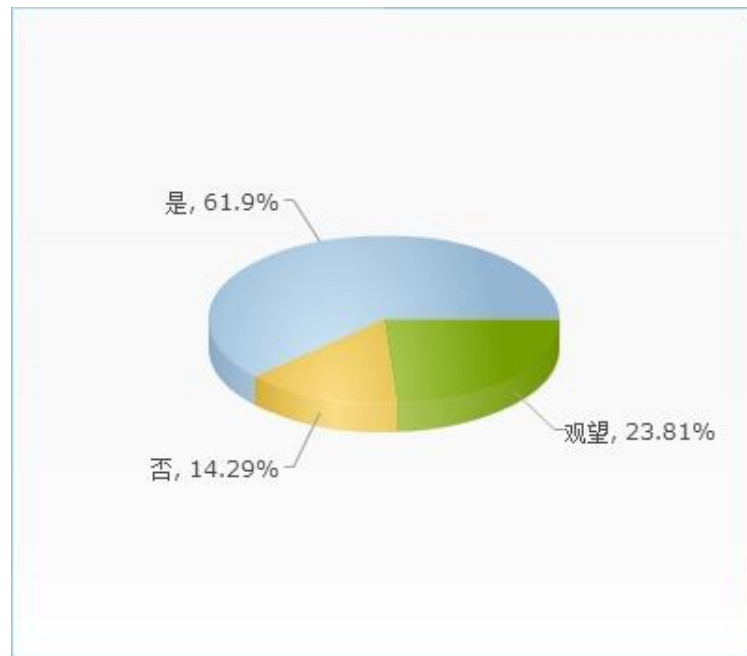
- 1、开启 数据归还运动、抵抗 数据碎片化
- 2、互操作标准：联盟协作、自下而上
- 3、开源医疗软件和协议、开放数据库
- 4、丰富鼓励应用市场，形成闭环

# 医疗服务机构 数据开放度 调查

- 94.89%的患者希望



- 61.9%的医院愿意推动

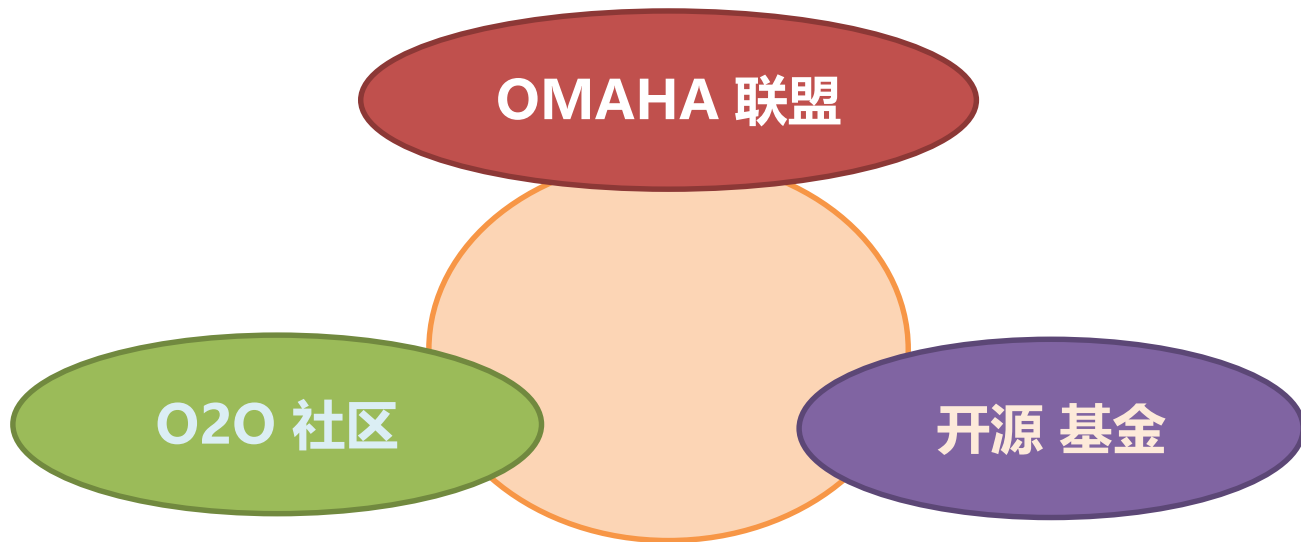




# OMAHA 技术社区

- **载体**：OMAHA 论坛、微信、邮件列表、会员交流平台；
- **在线标准协作工作组**，医疗健康信息术语等标准；
- **Open PHR 工作组**，开放个人健康档案的格式制定；
- **医疗健康开源工作组**，医疗健康领域的开源项目交流推广；
- **开源医疗黑客大赛**

# Future of OMAHA





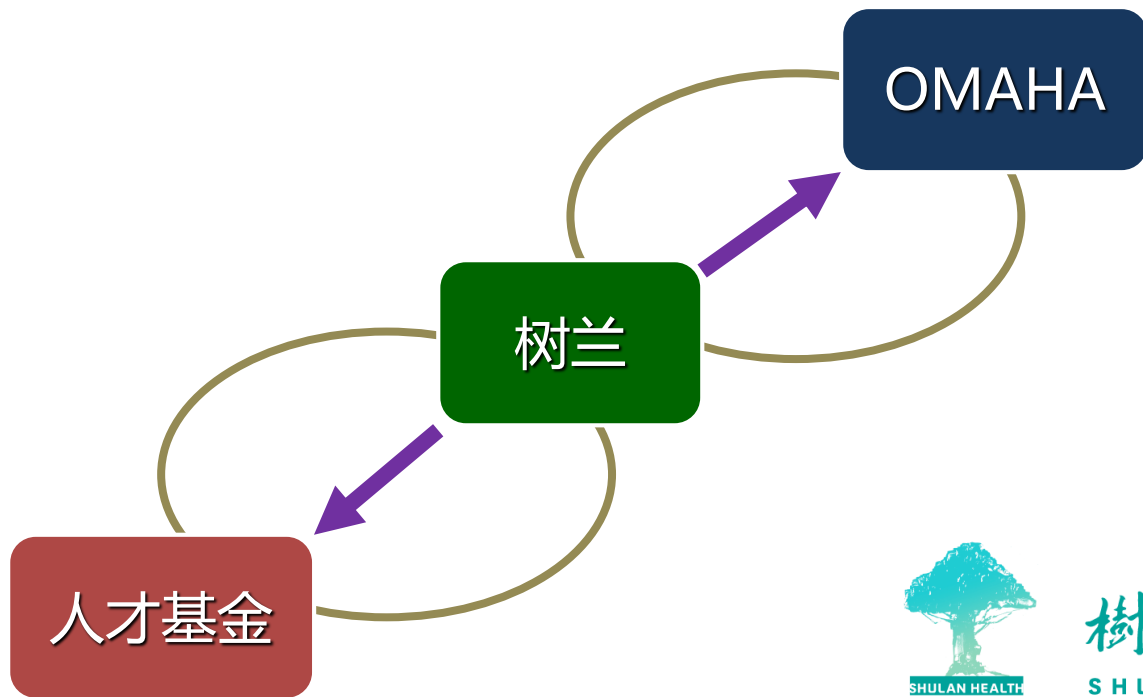
# 浙江大学国际医院

- 医院定位：  
**社会办 三级 综合性 医疗服务平台**
- 开始筹建时间：2014年7月
- 预期试营业时间：2015年12月
- 建筑面积：地上约43000平米，地下约20000平米
- 总投资规模：**5亿**
- 物业投资模式：长期租赁（20年以上）+改造
- 医保范围：国际医保、浙江省医保、杭州市医保
- 设计床位：520张
- 地理位置：杭州下城区东新路848号  
石桥路路口，中大银泰城旁，距杭州新天地直线300米



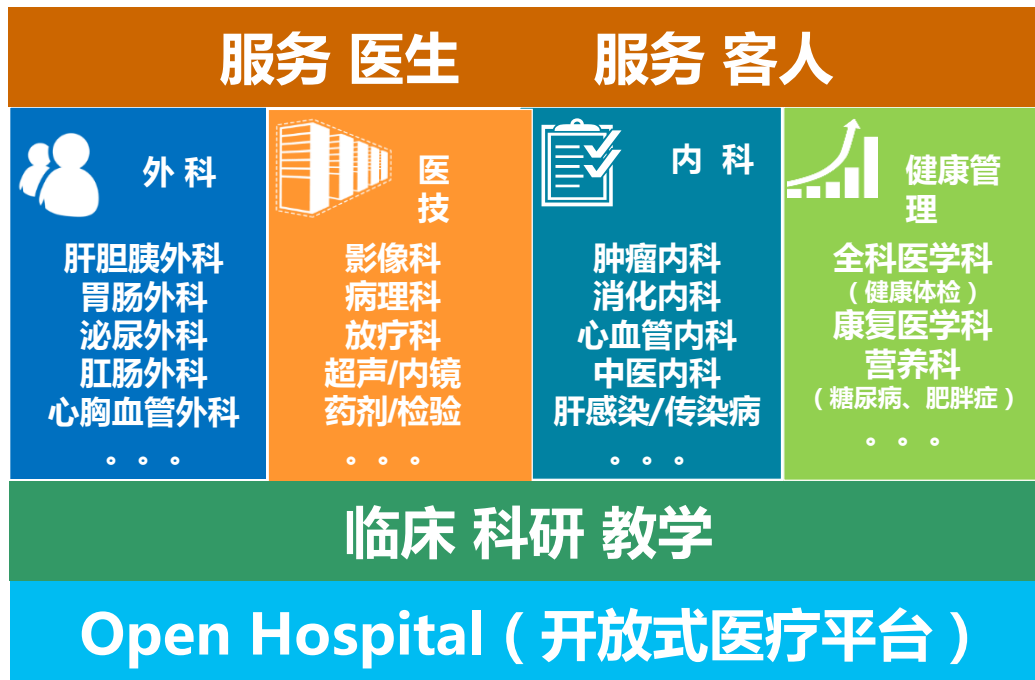
樹蘭醫療  
SHULAN HEALTH

# 服务与探索的闭环



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SHULAN HEALTH

# What will Future Medical Group Be ?



- 如何数据驱动
- 如何创新组织
- 如何去中心化
- 如何患者中心



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SHULAN HEALTH



未来诊所



樹蘭醫療  
SHULAN HEALTH

未来医院

OMAHA Open PHR

C



郑 杰



樹蘭醫療  
SHULAN HEALTH

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imit 浙江数字医疗卫生技术研究院  
Institute of Medical-care Information Technology

**树兰医疗** CEO；《**颠覆医疗**》推荐序作者；一席《**聪明的病人**》讲者；TED《**Future Medicine**》讲者；“**开放医疗与健康联盟**” - OMAHA 联盟发起者。

**求 同道者 请 联系我**