

Orion Health

Connected Healthcare

医疗系统互联互通

Mark Capill

Agenda

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- I. The Current Healthcare Model — 当前情况
- II. Catalyst for Change — 改变的催化剂
- III. Connected Health today — 现今的互联互通
- IV. What's Next? A Vision for the Future — 下一步

China

THE CURRENT MODEL

当前情况

Hospitals & their data...unlinked silo's

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Sharing data possible but requires huge effort.....

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可以共享数据但需要极大工作量



Market Drivers

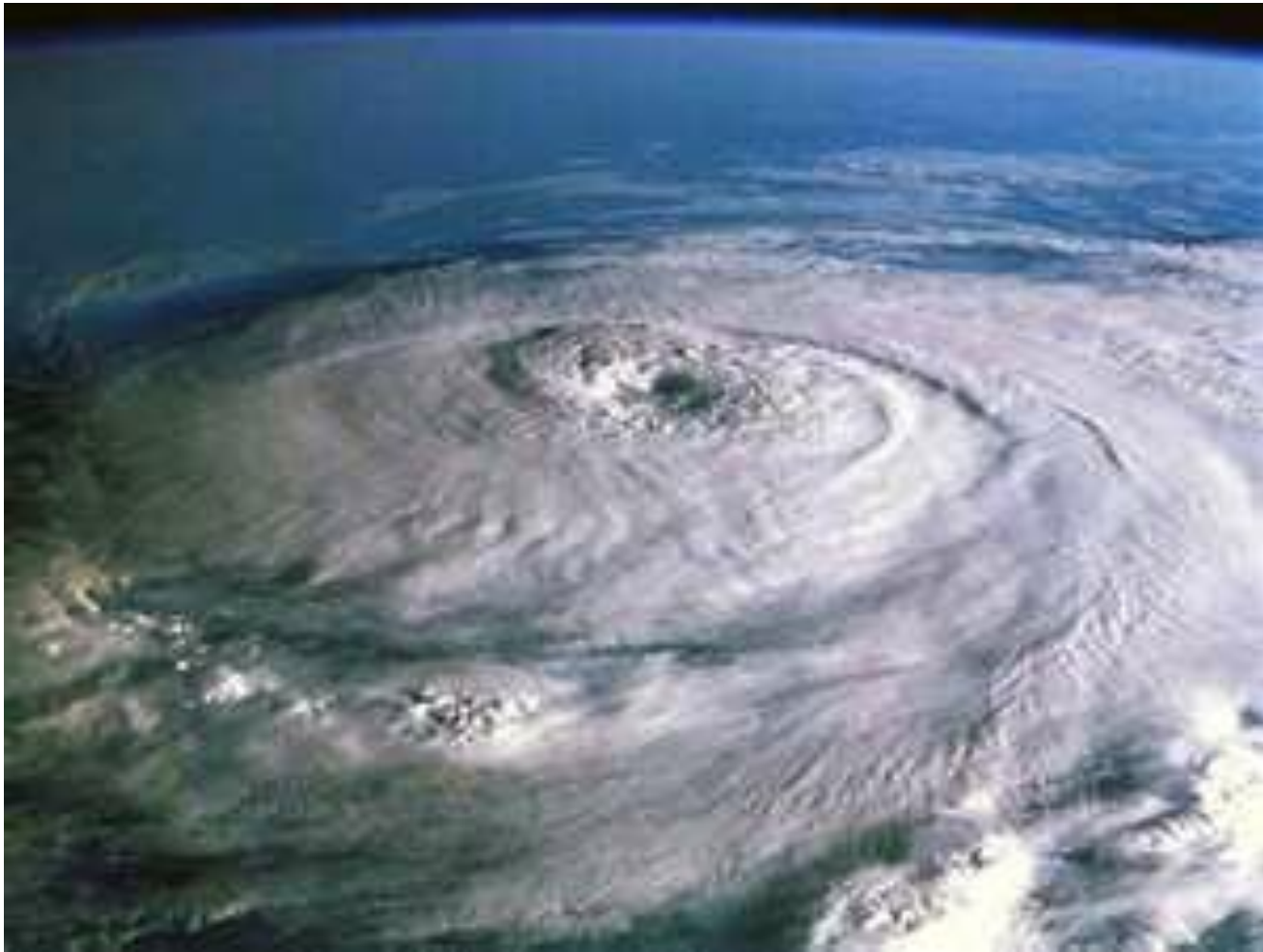
CATALYSTS FOR CHANGE

改变的催化剂

The Perfect Storm

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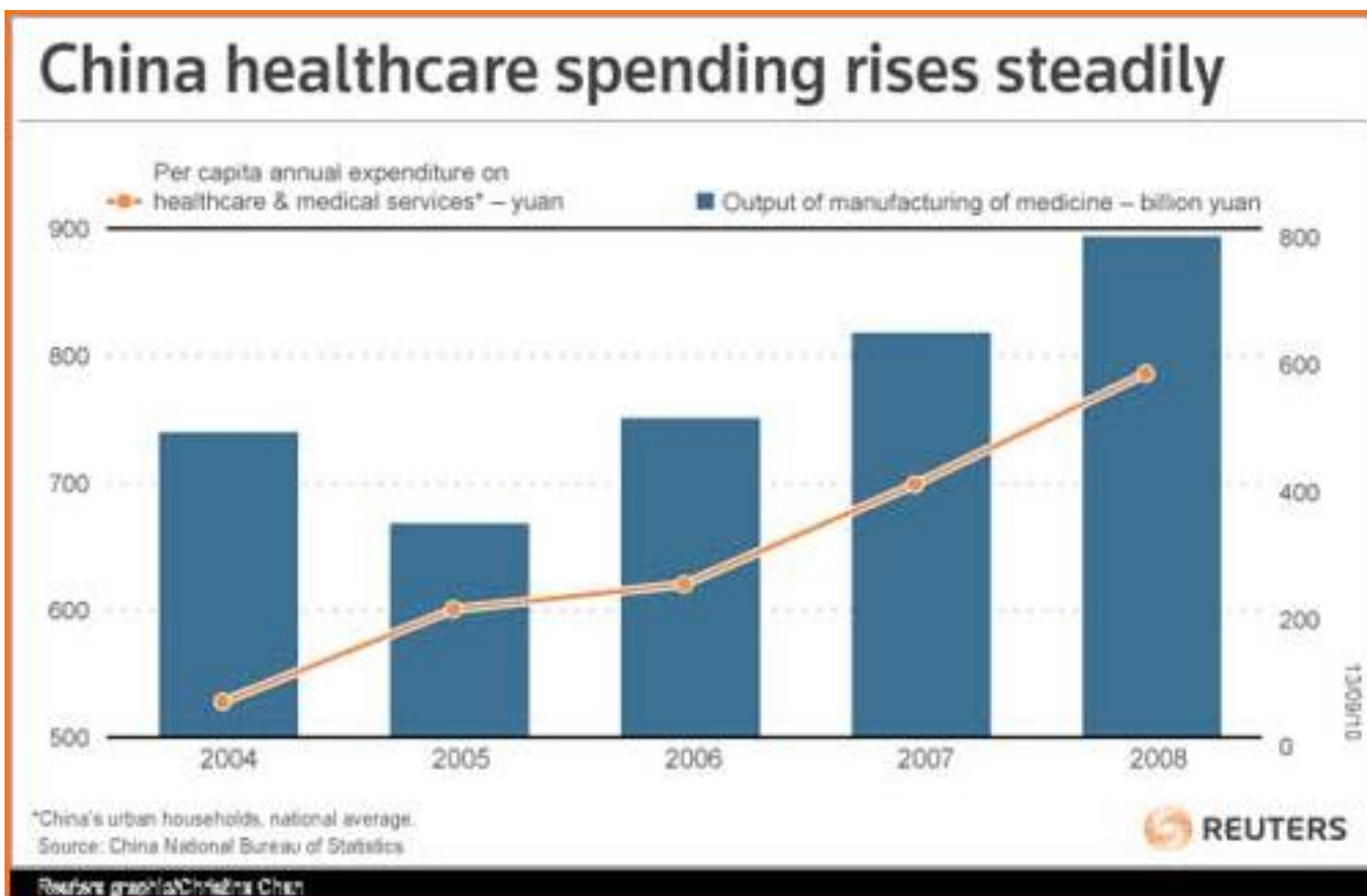
<http://www.chima.org.cn>
完美风暴



Cost of Healthcare

医疗成本

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Aging Population

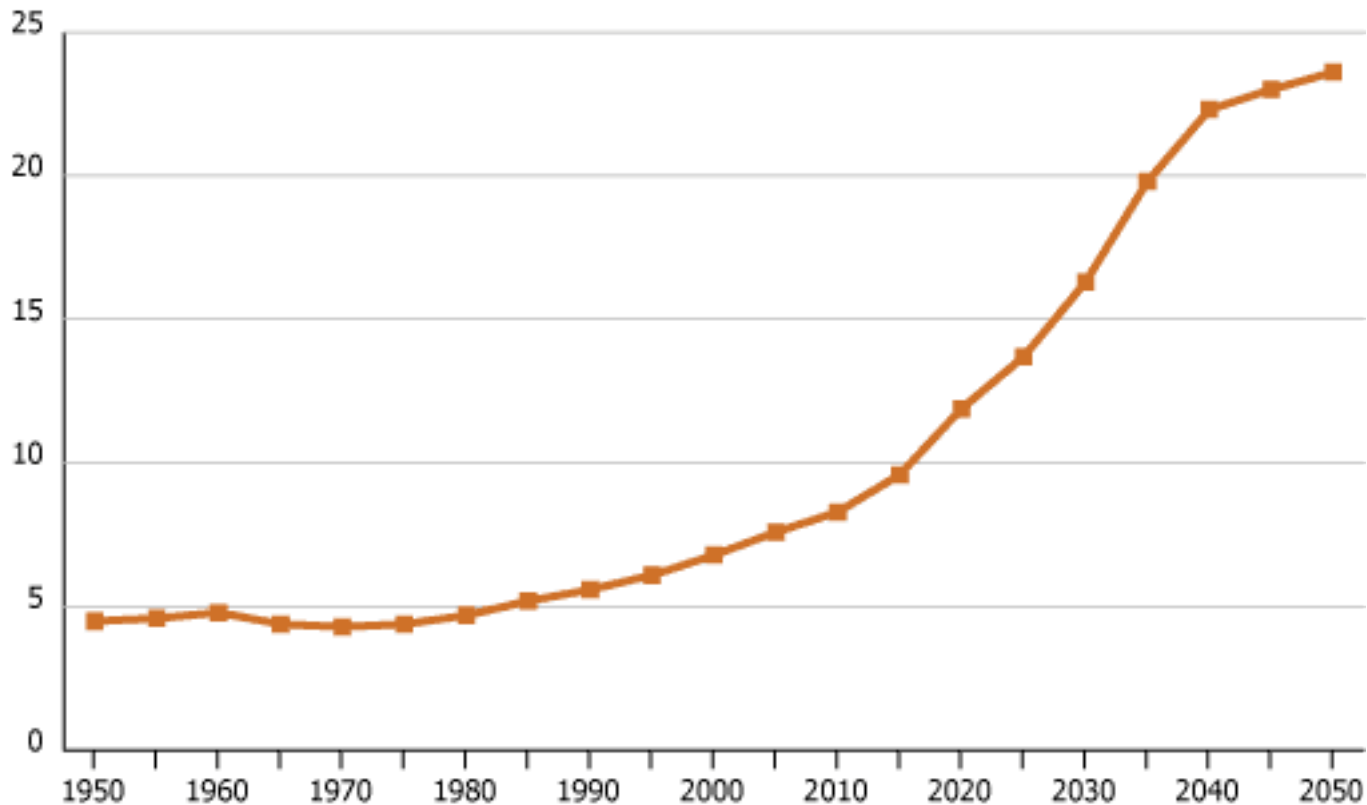
人口老龄化

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Percentage aged 65+ in China, 1950-2050

中国65岁以上人群百分比

Percent of total population



Source: World Population Prospects: The 2004 Revision (2005).

Chronic Conditions & Obesity

慢性病及肥胖

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Demand for new procedure's/treatments.

需要新的解决方法

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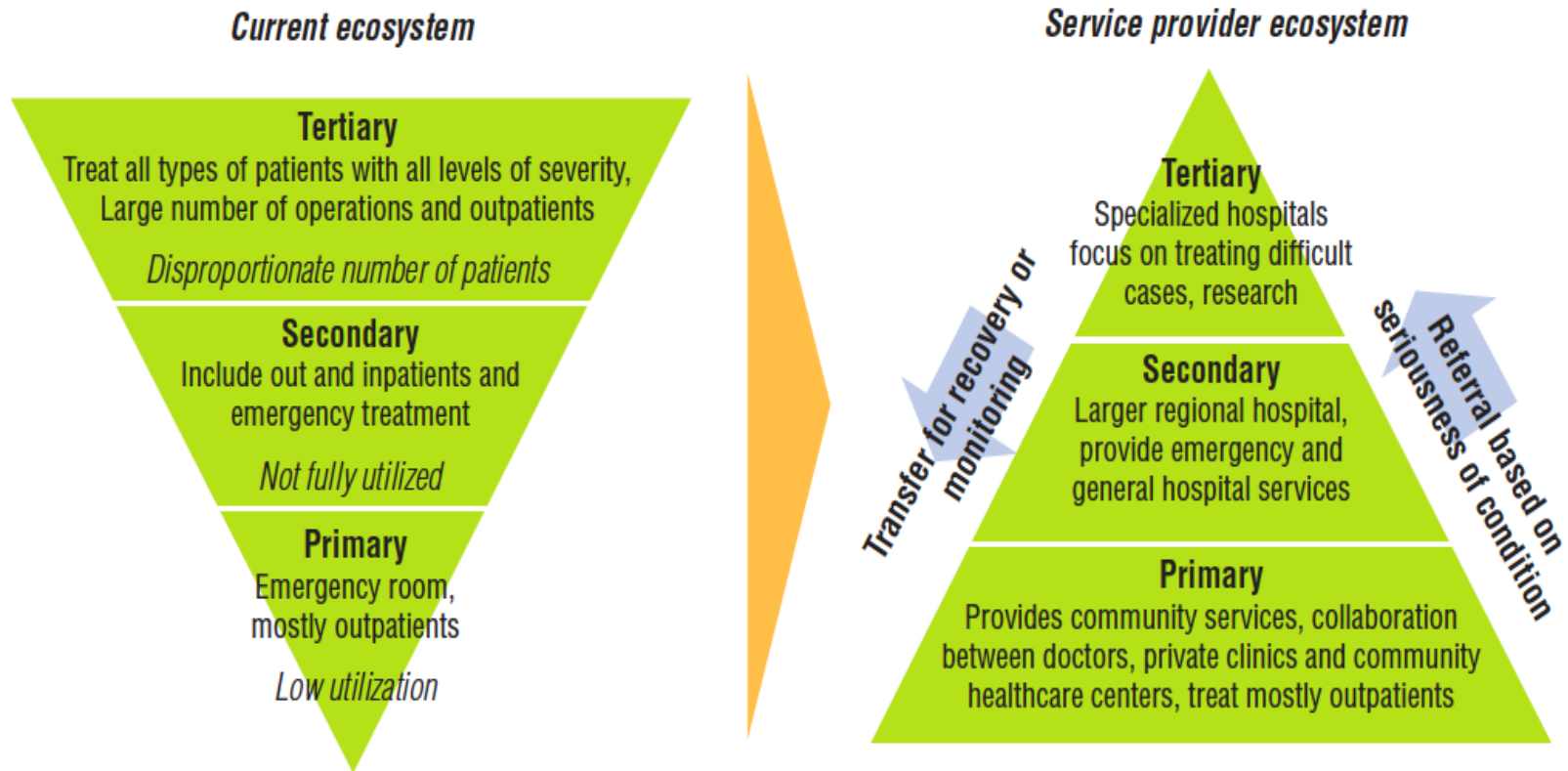


Proposed Service Delivery Changes

改变医疗服务方式

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Figure 5. A “service provider ecosystem” to resolve inefficiencies in the current system.



Source: IBM Institute for Business Value analysis.

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What's Next

A VISION FOR THE FUTURE

未来

Supporting the Evolution 推进进化

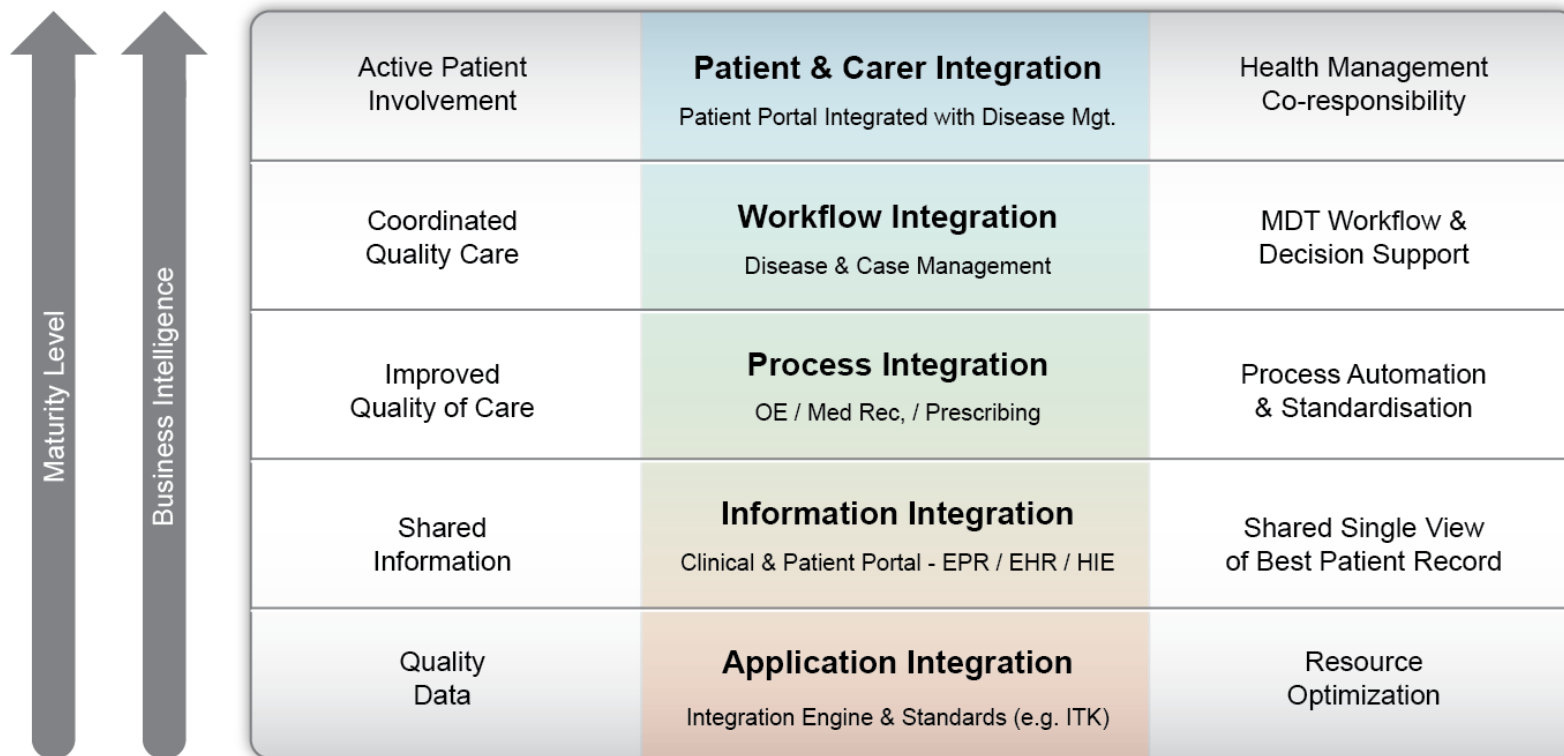
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Patients



Professionals



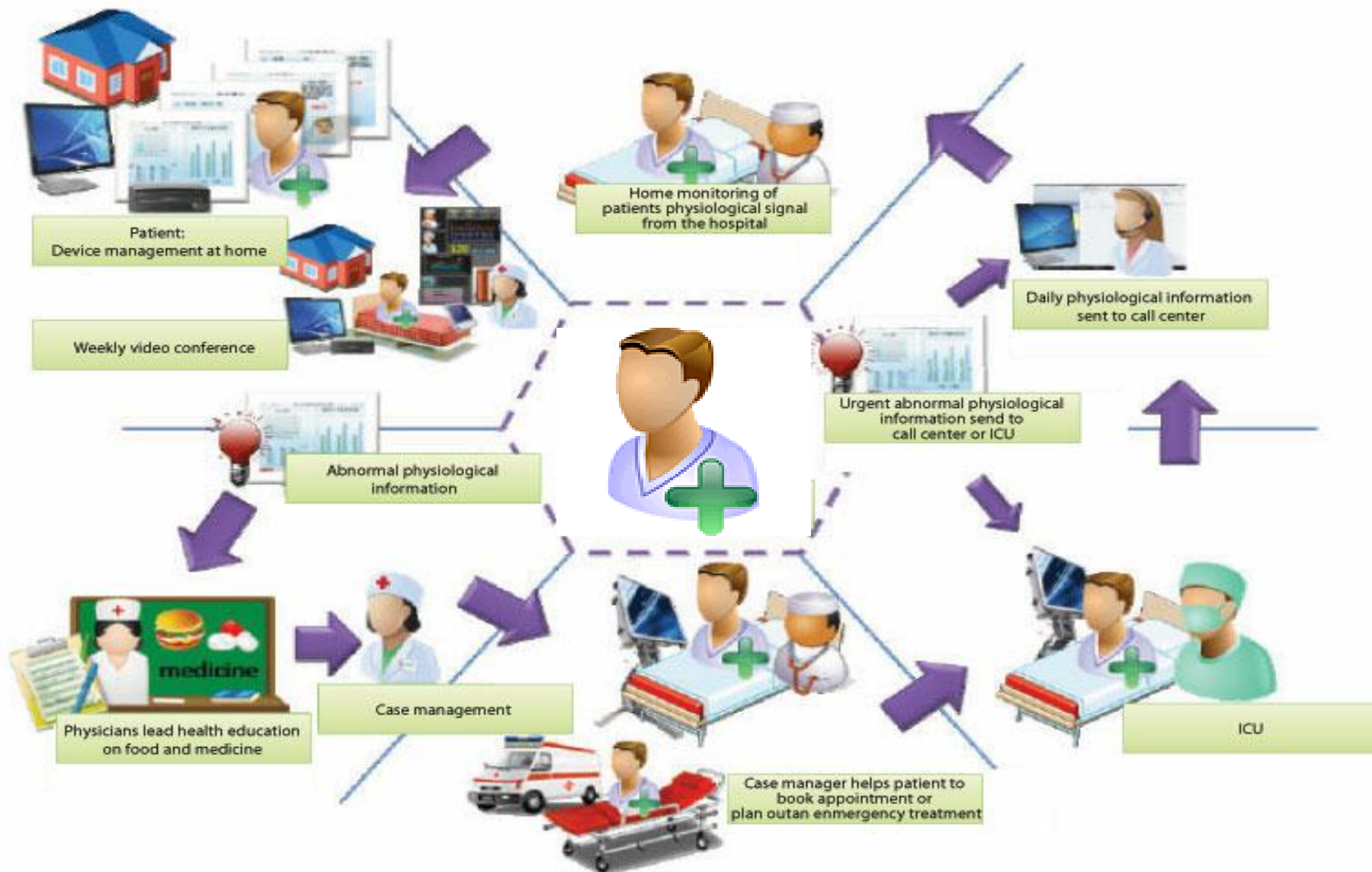
Maturity Levels cannot be skipped. Each builds on previous ones
成熟度不可跨越式，发展基于前一层

Patient Centric Care Models

以病人为中心的模式

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China Model

CONNECTED HEALTHCARE HOSPITAL

院内医疗系统互联互通

Case Study – Binhai Hospital

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案例 — 香港大学深圳医院（滨海医院）



Case Study – Binhai Hospital

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<http://www.china.org.cn>

案例 — 香港大学深圳医院（滨海医院）

- 院内集成方式：TCP
- 院内数据标准：HL7 v2.4
- 院外集成方式：WebServices
- 院外数据标准：XML



Set RcvApp
LIS

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CIS TCP
Client

LIS TCP
Client

RIS TCP
Client

RIS TCP
Client

Set RcvApp
LIS

Set RcvApp
LVBIS

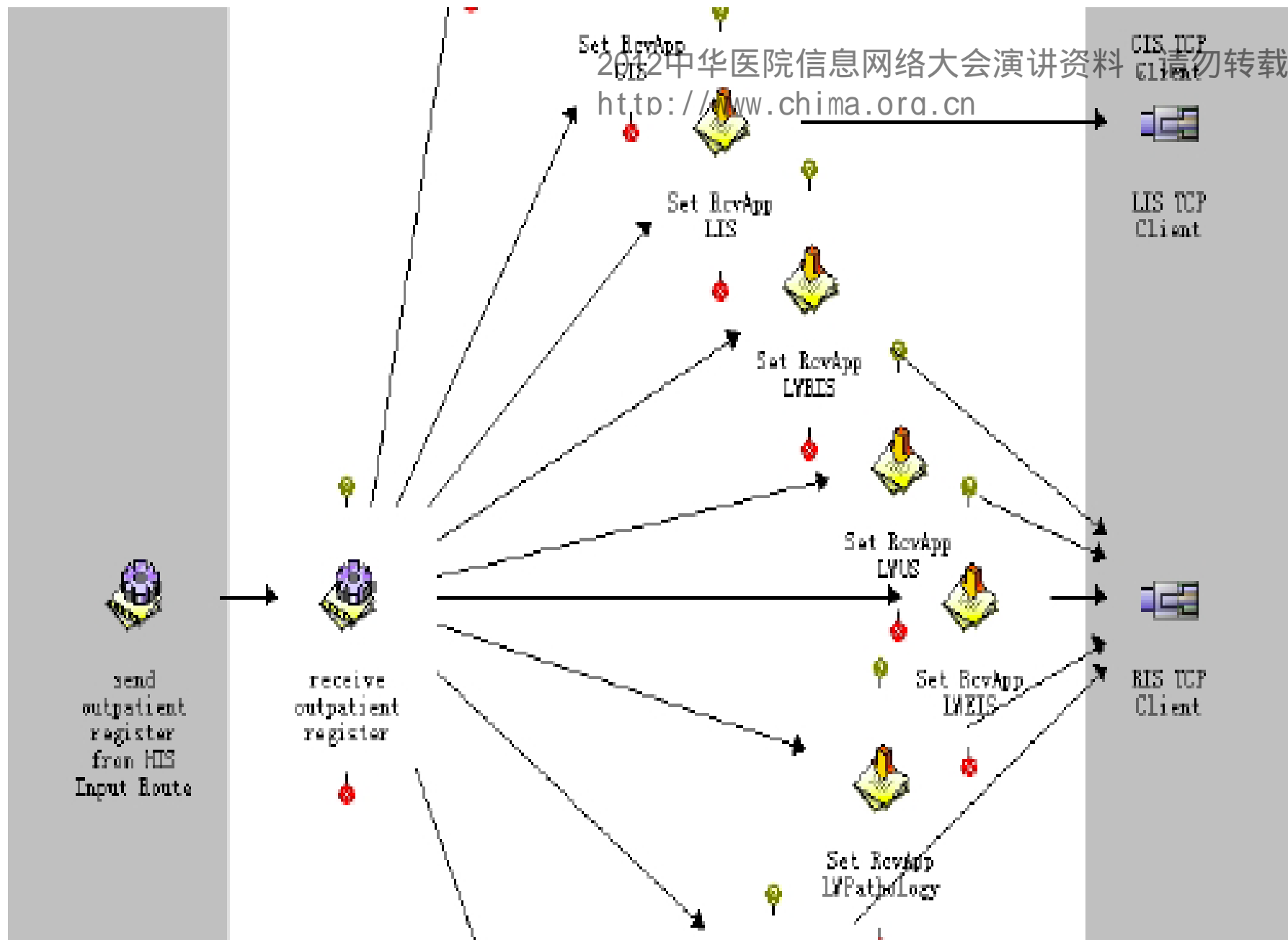
Set RcvApp
LVBIS

Set RcvApp
LVBIS

Set RcvApp
L/Pathology

receive
outpatient
register

send
outpatient
register
from HIS
Input Route



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China Model

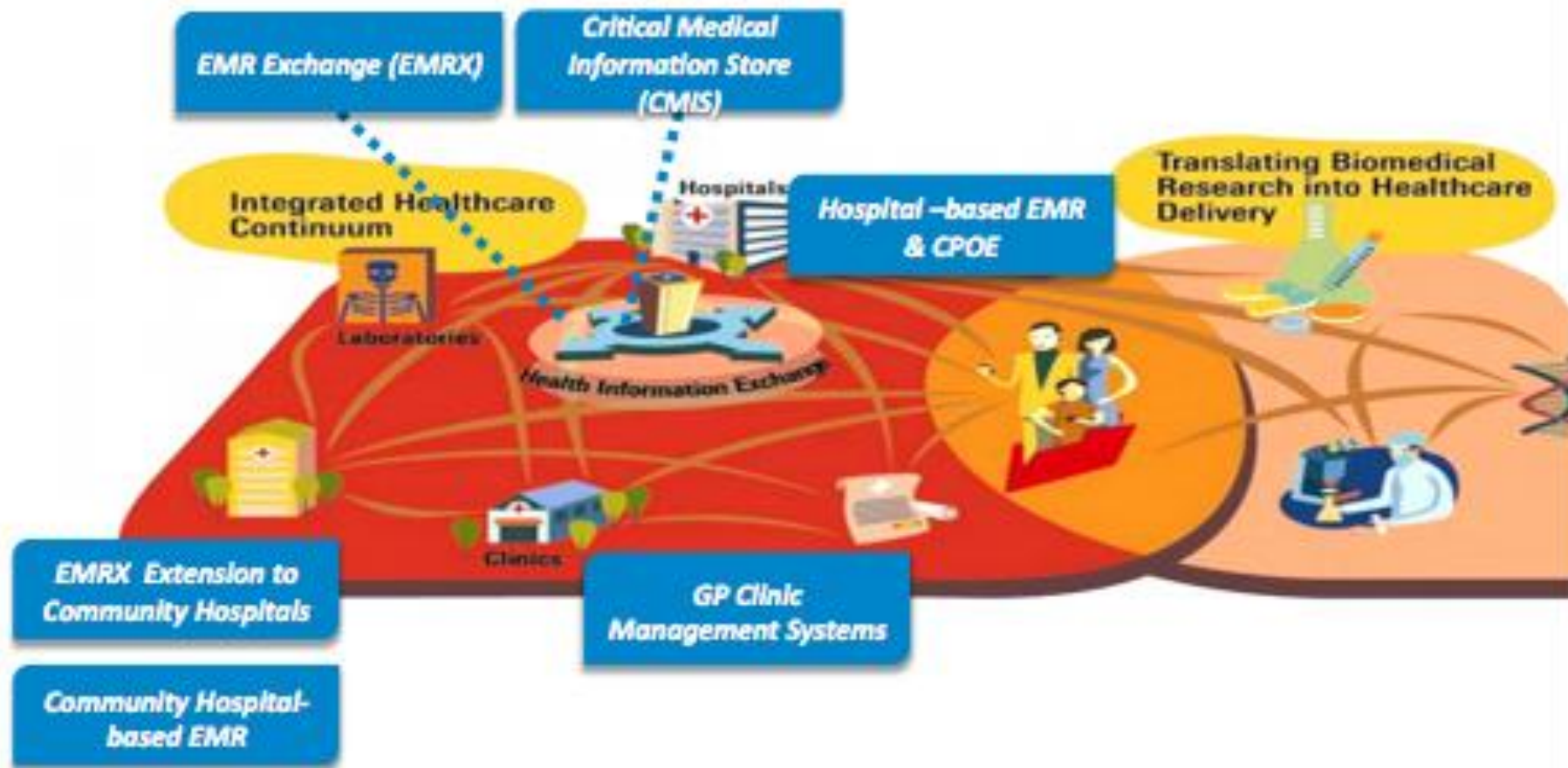
CONNECTED HEALTHCARE REGIONAL

区域医疗互联互通

Case Study Singapore NEHR

案例 — 新加坡国家EHR

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SINGAPORE'S VISION

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To improve healthcare quality for all residents, increase patient safety, lower healthcare costs and develop more effective health policies, Singapore's MOH created the NEHR vision – "One Singaporean, One Health Record" – which enables patient health records to be shared across the nation's healthcare ecosystem.

THE HEALTHCARE ECOSYSTEM IN SINGAPORE

The health ecosystem in Singapore has about 5.1 million residents and more than 36,000 healthcare providers across the public and private sectors. Private practitioners provide 80 percent of primary healthcare services, and the government polyclinics provide the balance. The ratio changes for more costly hospital care, with the government providing 80 percent through eight public hospitals.

Source: Singapore Ministry of Health website on September 20, 2011.
Visit www.moh.gov.sg for updated statistics.

Case Study – Australian PCEHR

案例 — 澳大利亚 Personal Controlled EHR

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nehta



Australian Government

Department of Health and Ageing



Hospitals

Primary care

Aged care

Mental health

Standards

Workforce

Prevention

eHealth

Patient appointments... All providers.

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病人可预约所有医疗服务

TURNER, Diane (Mrs)

Français

08-Jun, 12:48 | Diane Turner

Logout

ORION
HEALTH

What's New

Health Summary

Appointments 2

Messages 2

Shared Files 1

Medical Documents 1

Laboratory

Tasks to Complete 1

Health Library

Useful Websites

Circle of Care

Consent and Privacy

Personal Details

Appointments

This page shows the status of your upcoming and past appointments.

Upcoming Appointments

If you need to cancel or change an upcoming appointment, please phone the location of the appointment using the number provided.

Date / Time	With	Reason / Comment	Location	Duration	
20-June 2:00pm	Jane SMITH	LMC Regular Checkup	Family Care Medical Group Cnr Main and South Road Ph: 555-12345	30 minutes	In 2 weeks
22-July 9:00am	Jane SMITH	LMC Regular Checkup	Family Care Medical Group Cnr Main and South Road Ph: 555-12345	45 minutes	In 6 weeks

Showing 2 of 2

Past Appointments

Date / Time	With	Reason / Comment	Location	Duration	
12-Nov-2010 2:00pm	Dr. DOOLEY	Nutrition check-up	Family Care Medical Group Cnr Main and South Road Ph: 555-12345	30 minutes	5 months ago

Showing 1 of 1



Done

Upload / Enter relevant Patient Data

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http://www.chima.org.cn

上传及输入相关病人信息

http://pcehr.health.gov.au/

TURNER, Diane (Mrs)

Français 08-Jun, 12:48 | Diane Turner Logout ORION HEALTH

What's New
Health Summary
Appointments 2
Messages 2
Shared Files 1
Medical Documents 1
Laboratory
Tasks to Complete 1
Health Library
Useful Websites
Circle of Care
Consent and Privacy
Personal Details

Shared Files

Rash on my arm

60% 1 / 3



Done

Child Health record retained from Birth

婴幼儿健康档案

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800363000000574 James Brown jamesb@gp.gov.au

21:57 30-4

Provider User Details

Username 800363000000574

Authentication
☐ Use external (Windows NT/LDAP) password
☒ Use Clinical Portal password
Password Policy Default Policy
☐ Force password change on next login
[Reset Password](#)
Start Screen

Inactivity Logout

User Type Normal Shared
Account Policy Default Policy [Configure](#)
Language English

[Update Preferences](#) [Discard Changes](#)

Role Memberships

Roles user performs
eBB - General Practitioner

Roles user does not perform
Clinical User
eBB - Clinician
eBB - Midwife
eBB - Provider
eBB - Service

Group Memberships

Member of

Not a member of
Administrators
Records Administrators
Users
Allergies & Alerts

Child Checks
Showing Unresolved Tasks
Add Task
For You
Birth Hearing Check (SWISH) Due 4 days ago
Birth and Newborn Questionnaire Due 4 days ago
Newborn Examination Due 4 days ago
1 - 4 Week Questionnaire Due in 3 weeks
1 - 4 Week Health Check Due in 3 weeks
6 - 8 Week Health Check Due in 7 weeks
6 - 8 Week Questionnaire Due in 7 weeks
6 Month Health Check Due in 6 months
6 Month Questionnaire Due in 6 months
12 Month Health Check Due in 12 months

Demographics

8003601240022561 - PITT LUCY

Other Identifiers

Demographics

Sex Female
Date of Birth 02 Mar 2011 (14 months)
Address
Phone

Pathway Enrollment

Enrolled Pathways

eBlue Book – Enrolled
Since 28-Apr-2012 (4 days ago)
The patient is enrolled in all available pathways.
Showing 1 of 1 available pathways

Associated Organisations

Organisations

Blacktown Medical Centre
[Add](#)

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China Model

CONNECTED HEALTHCARE NEXT PHASE 下一步

Case Study – Isles de Balears, Spain

案例 — 巴利阿里地区，西班牙

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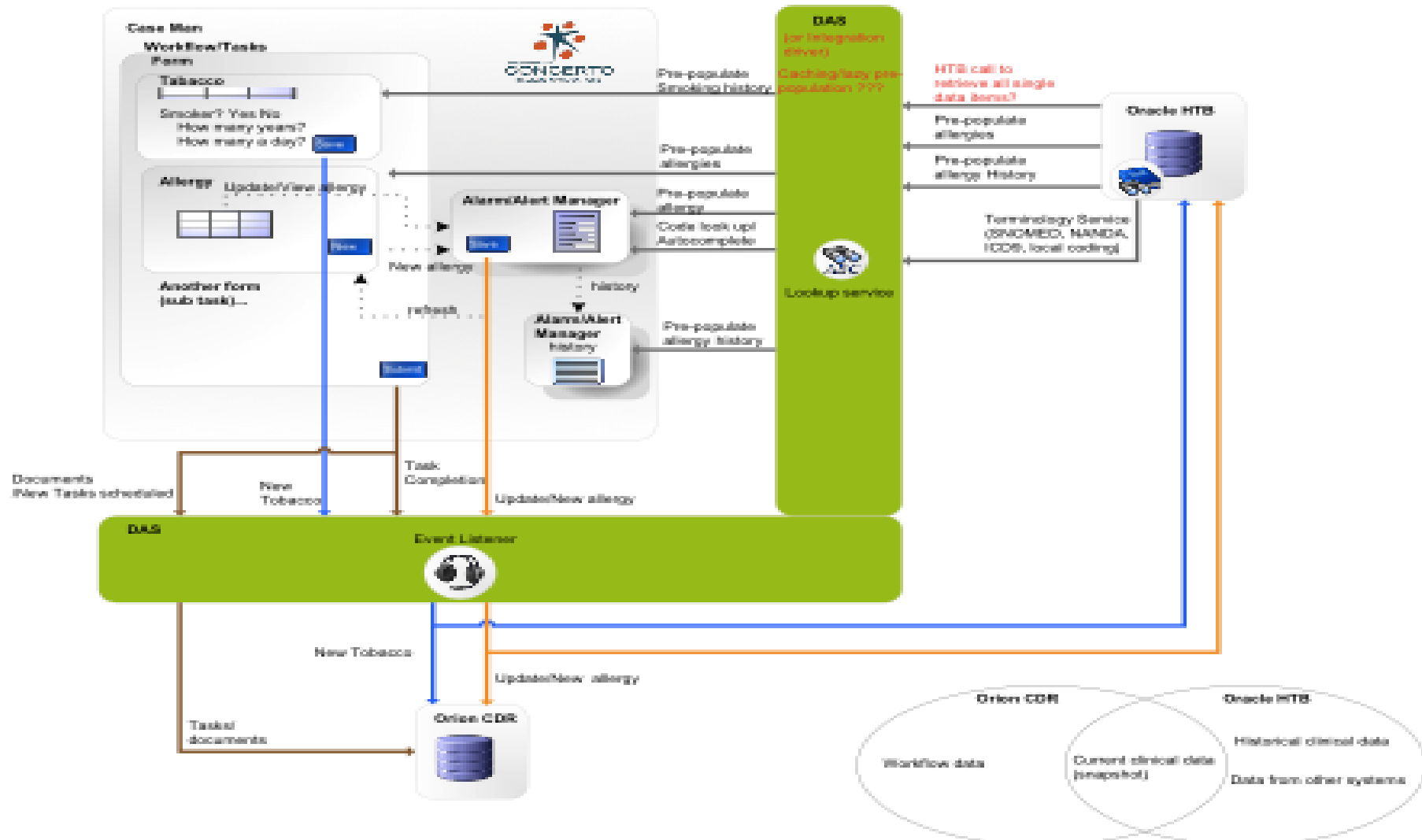


Case Study – Isles de Balears, Spain

案例 – 巴利阿里地区，西班牙

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IB Salut HTB Integration – Case Management



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China Model

CONNECTED HEALTHCARE THE FUTURE 未来

Now you have an EHR

EHR之后

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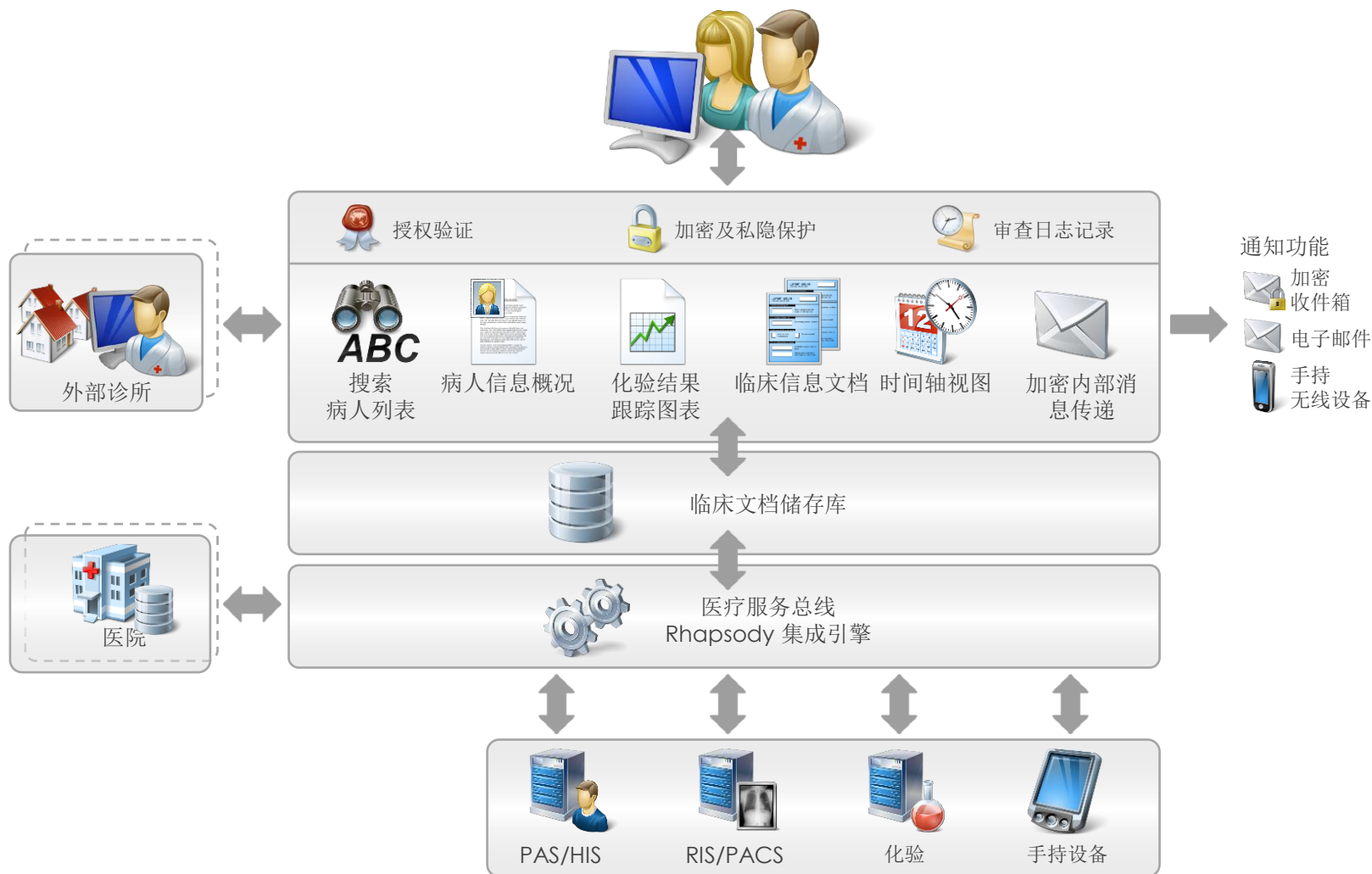
- ★ Modeling national EHR data to identify optimal treatment protocols based upon empirical outcomes — 对国家EHR数据建模，基于实证的数据找寻最优化的治疗方式
- ★ Pro-Active identification of at risk Patient cohorts prior to development of Chronic disease symptoms — 在慢性病扩散前主动分析找寻致病人群
- ★ Identification of most suitable candidates for novel treatments. Trial cohorts. — 分析找寻最优试药人群
- ★ Inclusion of Genomics – Mapping of individual DNA to identify propensity for certain diseases and deliver individualized treatment plans. — 包含染色体类比 — 匹配个体DNA找出潜在致病人群，基于个体的治疗计划

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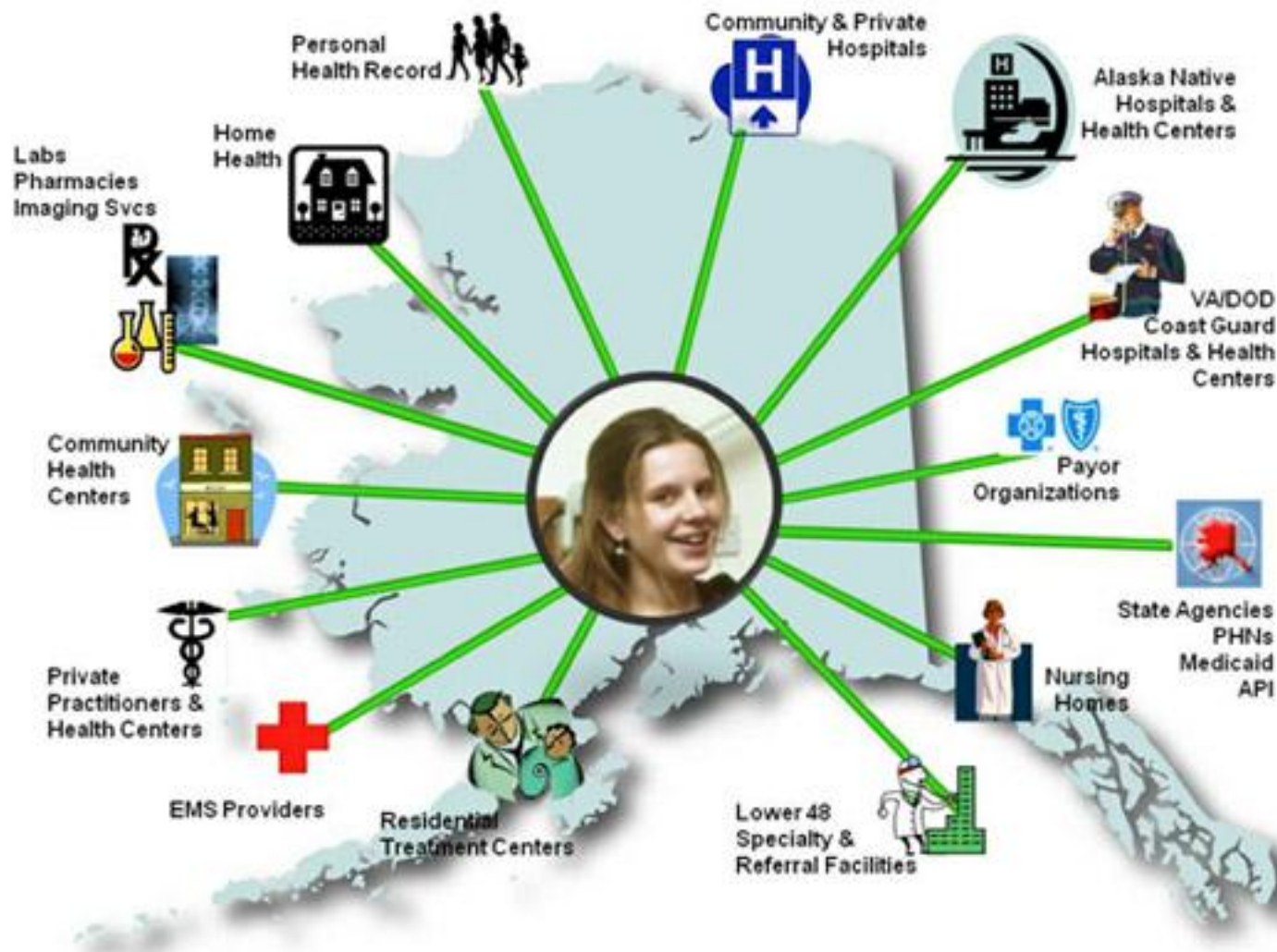
Best Practice

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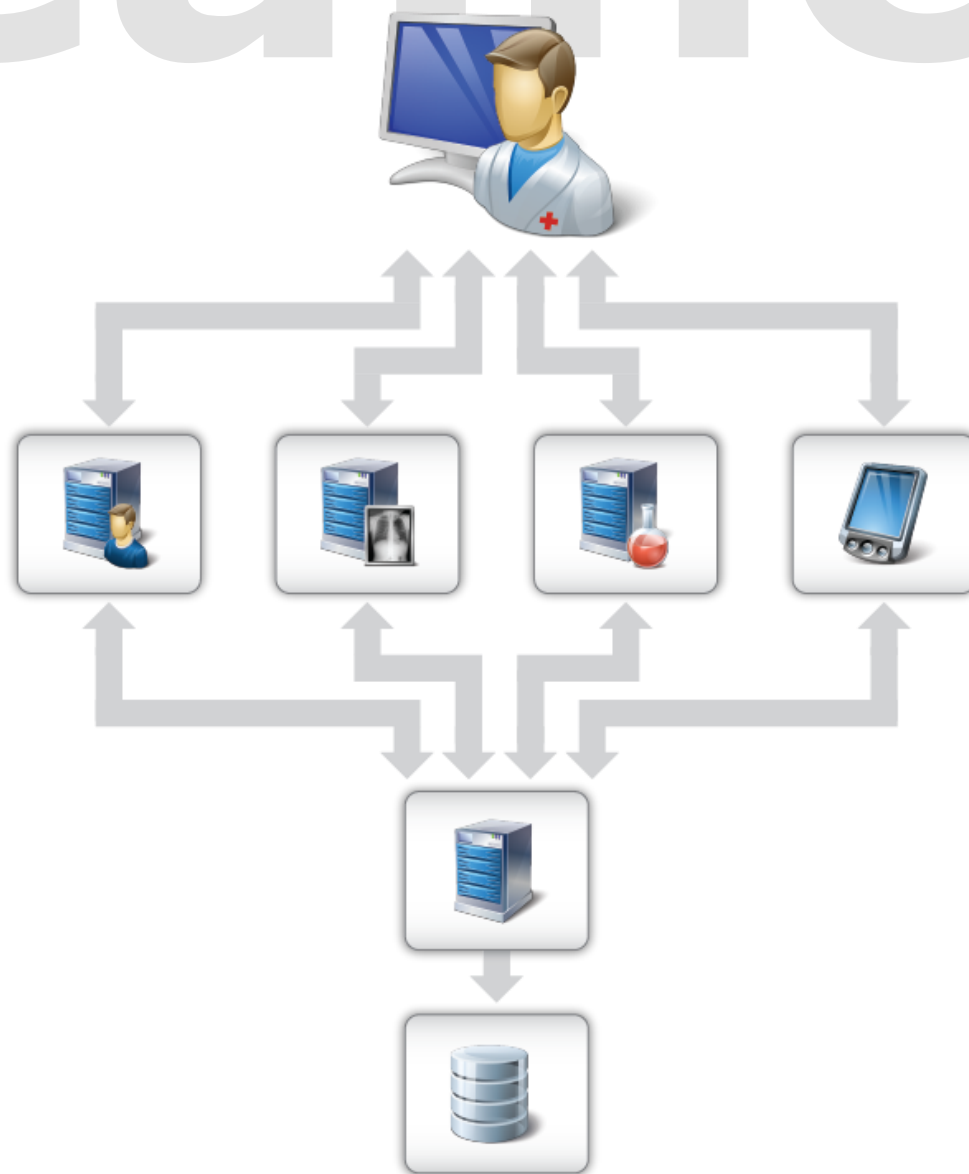
Case Study Alaska HIE

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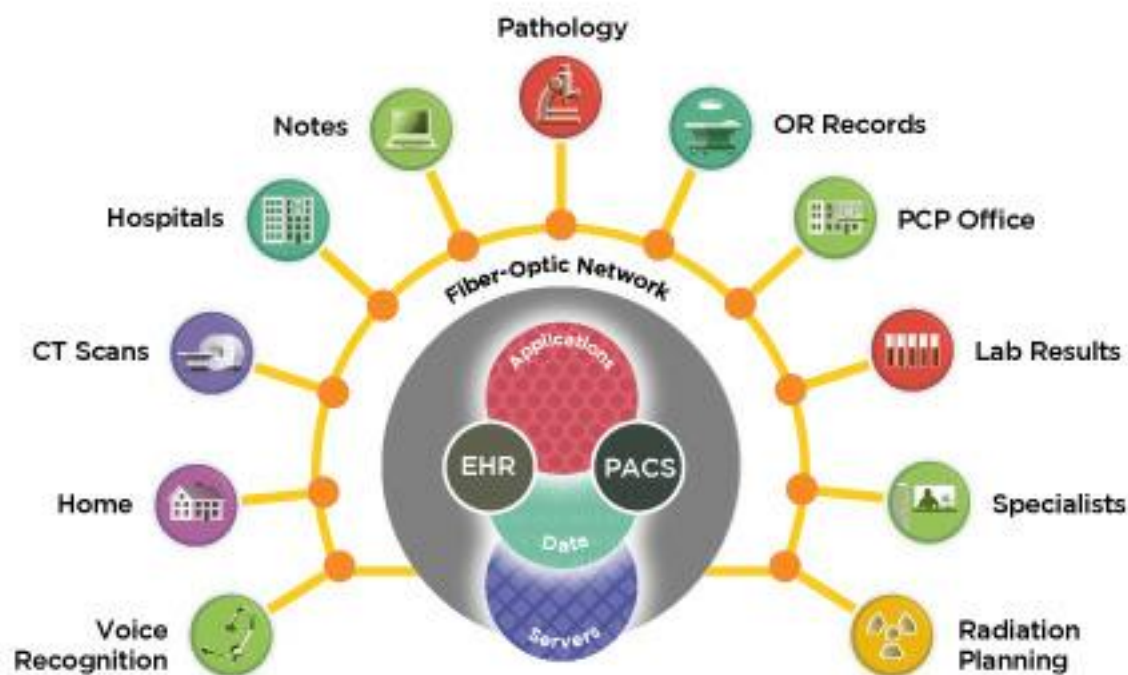


Healthcare Model - Today

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HIT CORE INFRASTRUCTURE



[click image to enlarge]