





# NEW ZEALAND

## Population

- 4.1 million People
  - Maori 14%
  - Pacific People 6%
  - Asian 6%
- 39.9 million sheep



# NEW ZEALAND

Paul Cressey

- The New Zealand Health System
- New Zealand Health Information
- eMedicine NZ Context
- Safe Medication Management Programme





# THE NEW ZEALAND HEALTH SYSTEM

## NZ Health

- 21% Govt Budget
- \$12 billion
- 9.45% GDP
- Government Funded 80%
- Primary Care 40%
- Secondary Care 60%



# THE NEW ZEALAND HEALTH SYSTEM

## National Health Strategies

- NZ Public Health and Disability Act 2000
- NZ Health Strategy 2000
- Primary Care Strategy 2001
- Health Information Strategy for NZ 2005
- Accident Compensation Commission



# A NEW ZEALAND DISTRICT HEALTH BOARD

## Counties Manukau District Health Board

- Population 410,000
- Budget \$1 billion
- Hospitals and Primary Care
- Primary Options Acute Care
- Chronic Care Management
- Lets Beat Diabetes





# NEW ZEALAND HEALTH INFORMATION

## Health Information Strategy Action Committee

- Ministerial Committee
- Governance, Oversight, Leadership
- Sector Leaders
- Infrastructure Subcommittee
- Health Information Standards Organisation
- National Collections Subcommittee





# NEW ZEALAND HEALTH INFORMATION

## Health Information Strategy for NZ

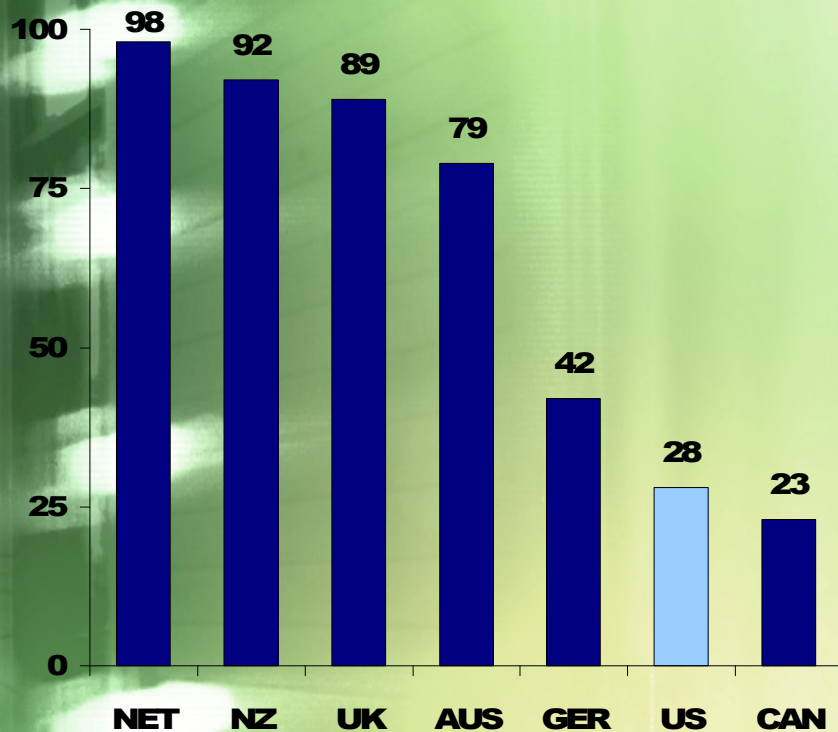
- National Networking
- Anchoring Framework
- Primary Care Information
- Chronic Care Management
- Outpatient Information
- National System Access
- National Health Index
- Health Provider Index
- e Laboratory
- e Pharmacy
- e Discharges
- e Referrals



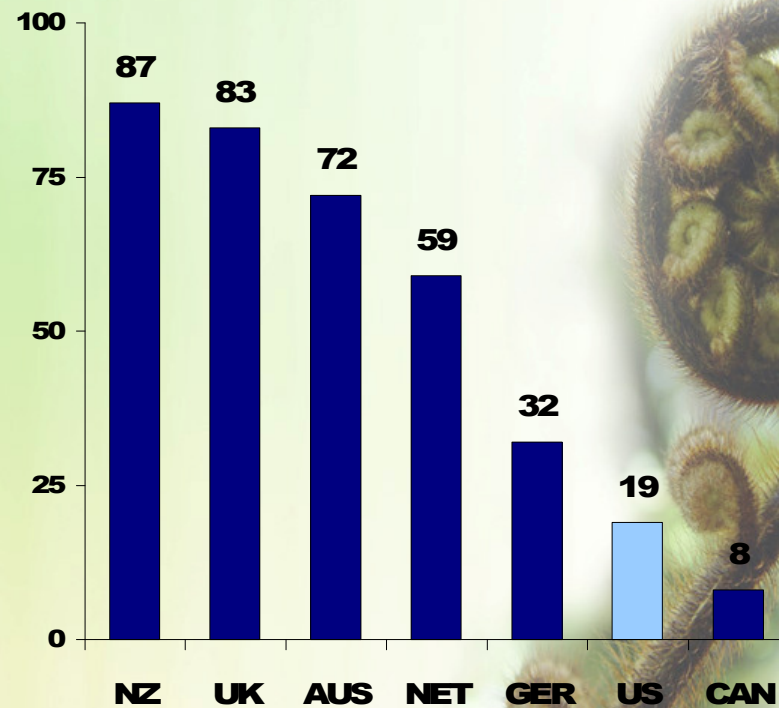
# NEW ZEALAND HEALTH INFORMATION

## EMRs in New Zealand

Percent uptake EMR

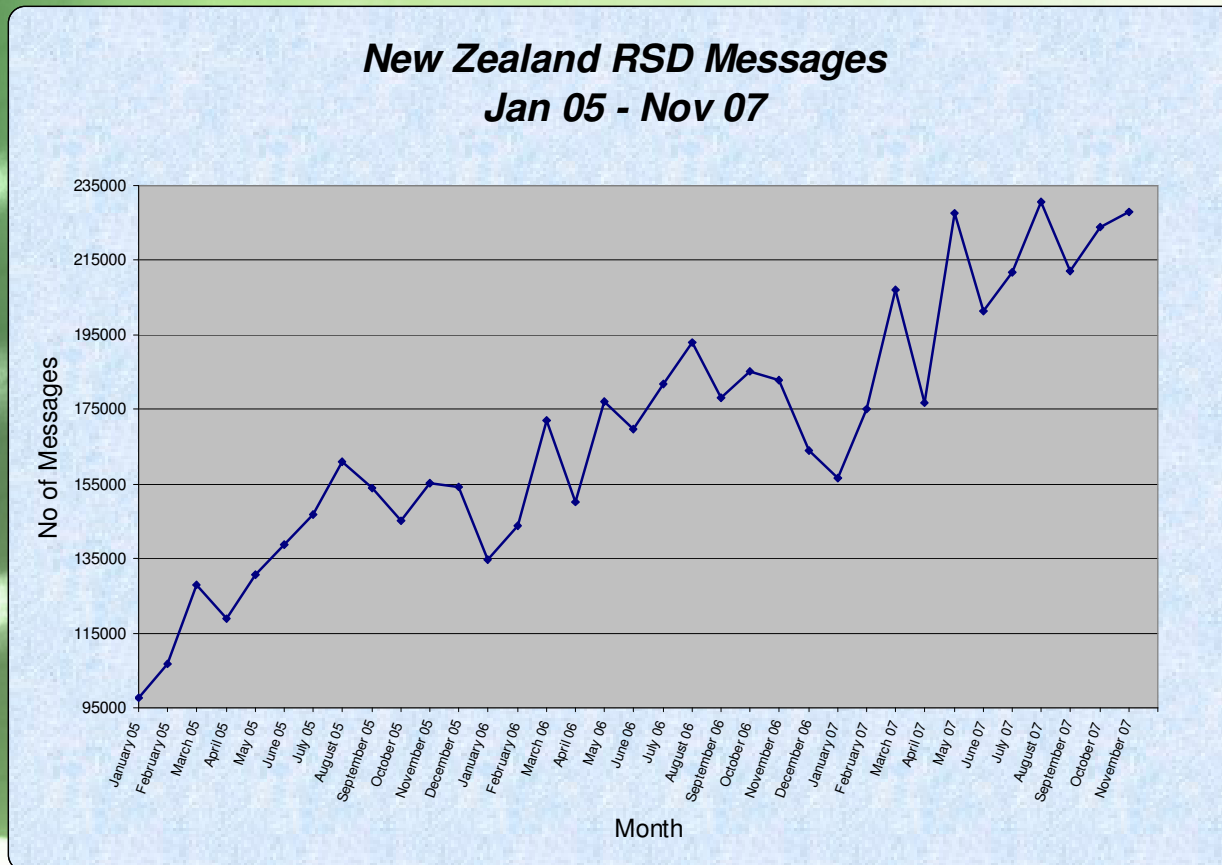


Percent 7 (14) functions



# NEW ZEALAND HEALTH INFORMATION

## Referrals and Discharges in NZ

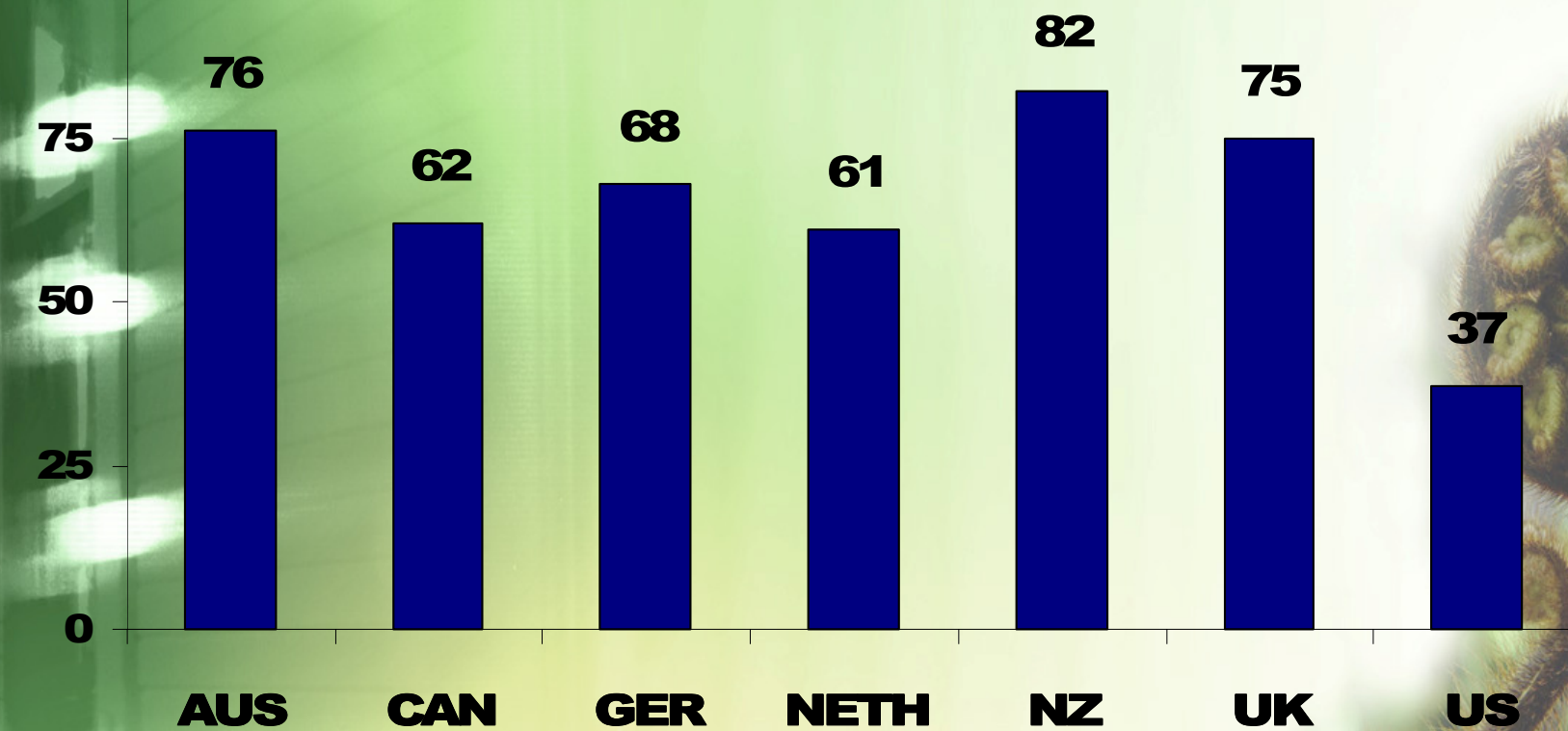




# NEW ZEALAND HEALTH INFORMATION

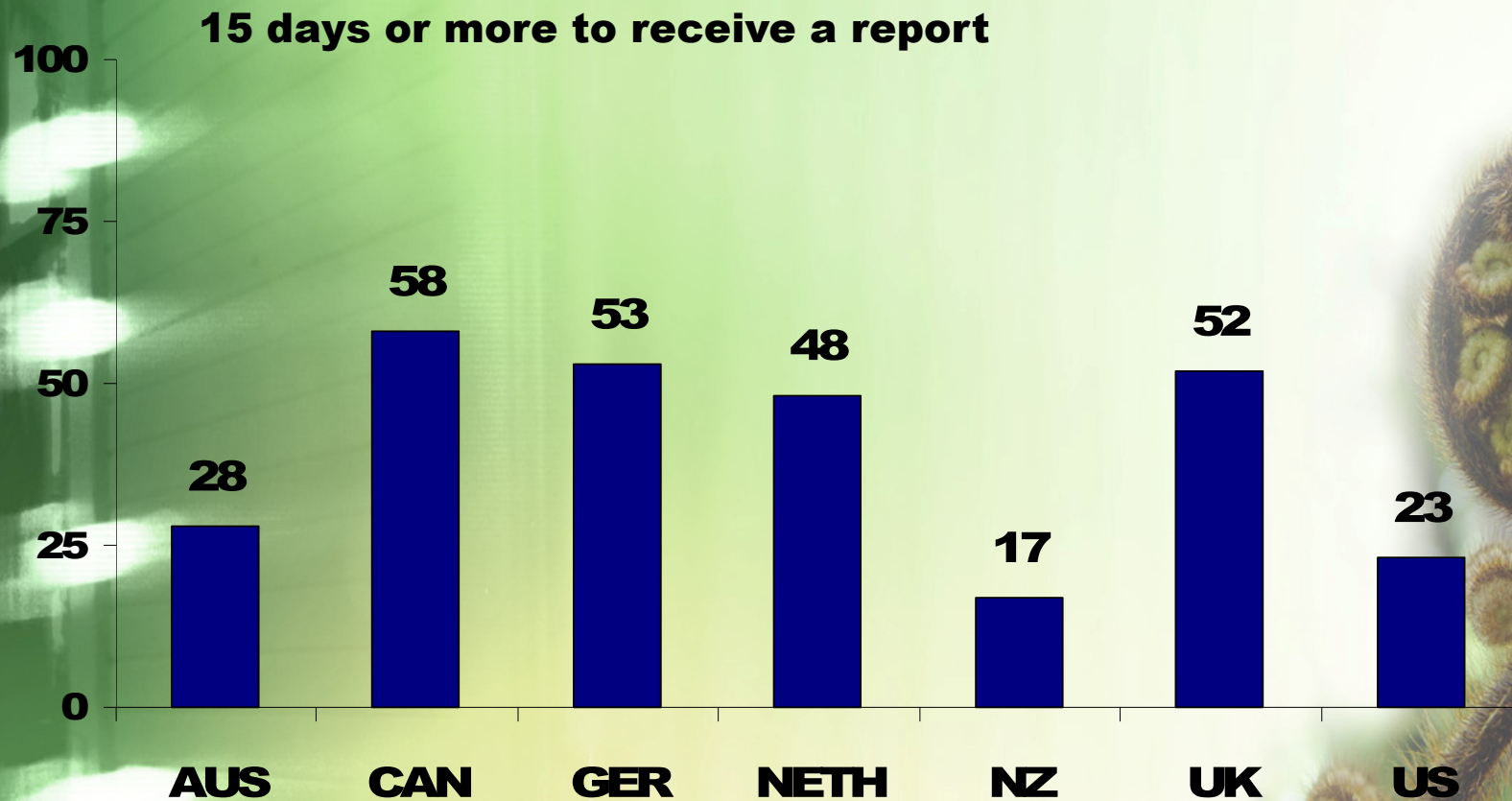
## Referrals

Receive Information Back from referral (80% or more)



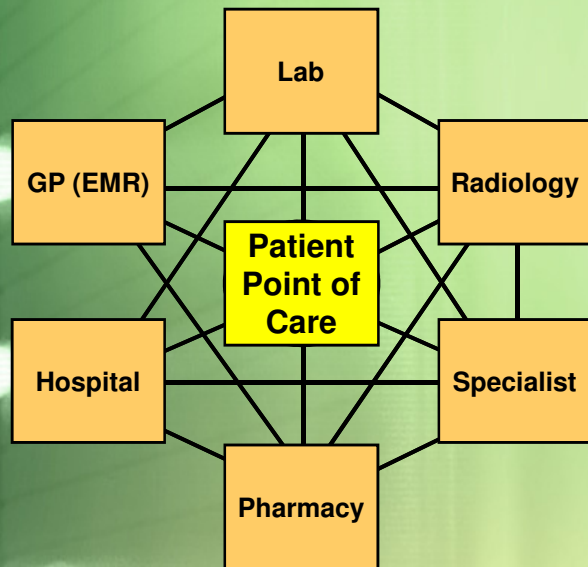
# NEW ZEALAND HEALTH INFORMATION

## Hospital Discharges

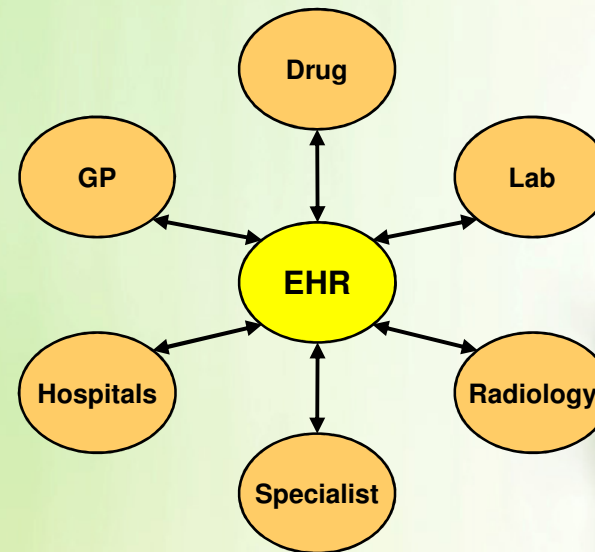


# NEW ZEALAND HEALTH INFORMATION

## New Zealand Approach



Point-to-point  
(push)

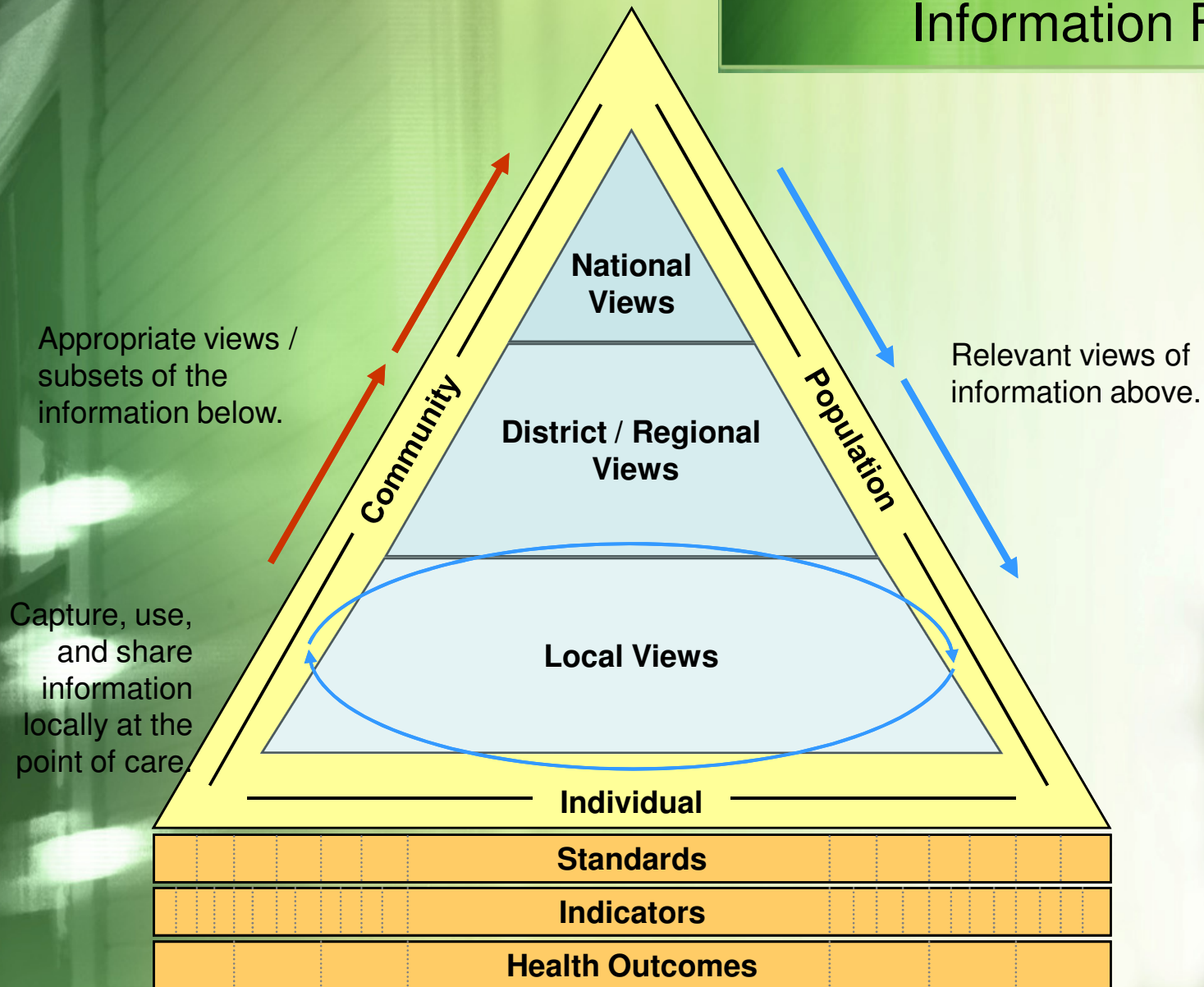


Centralised (push  
and pull)



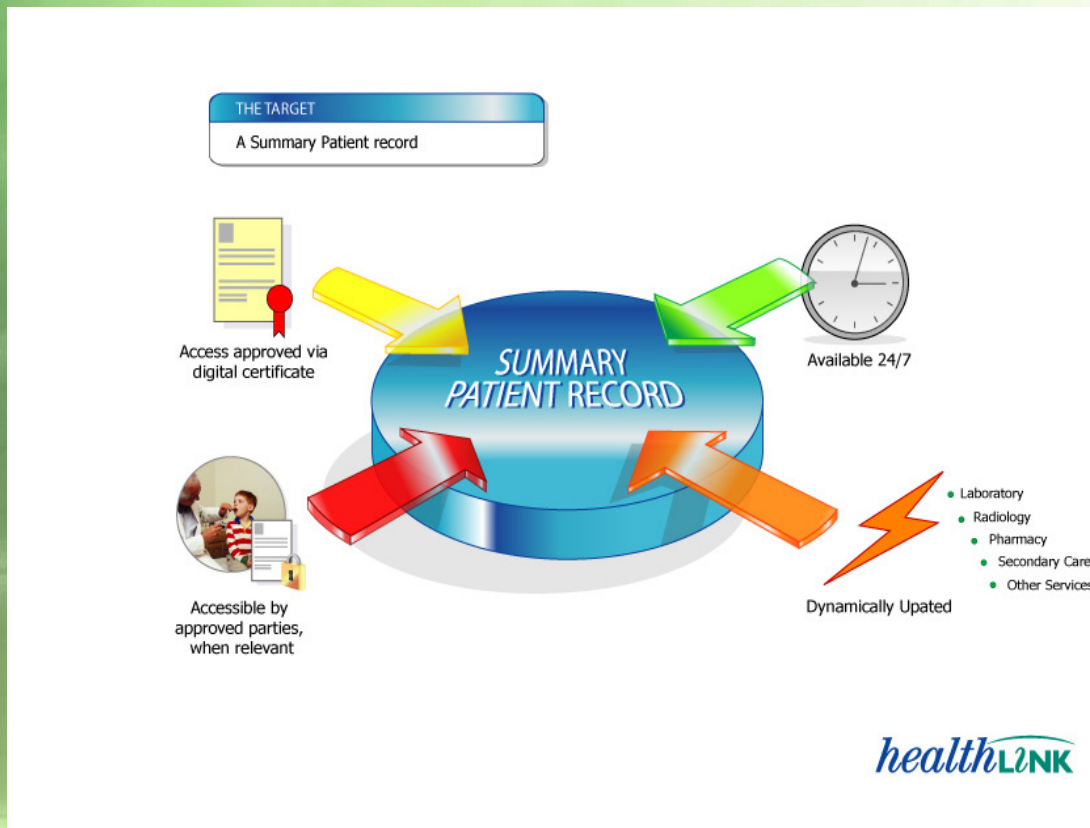


# Information Flows



# NEW ZEALAND HEALTH INFORMATION

## Shared Health Event Summary “Patient Vitals”





# E MEDICINE NZ CONTEXT

- Only 27% GP Referral letters had accurate medicines
- Only 52% of Surgical wards medication histories accurate
- 25% inaccuracies in discharge prescriptions

<b>A</b>	12/1/19	Paracetamol	1g	0	Qly/par	Finx
		Protaphone			40u	s/c
		Penmix			40u	s/c
		Protaphone			40u	s/c
		Penmix 30			14u	s/c

<b>H</b>	21/1/19	Levofloxacin	500mg	IV	q8h	MR
<b>I</b>	22/1/19	Aspirin	150mg	PO	q8h	MR
<b>J</b>	23/1/19	Amoxicillin B	250mg	PO	daily	MR
<b>K</b>	24/1/19	Clonidine	0.1mg	PO	bid	MR
<b>L</b>	24/1/19	Flucytosine	500mg	PO	bid	MR
<b>M</b>	24/1/19	Nystatin	100mg	PO	q4h	MR
<b>N</b>	24/1/19	Nitroglycerin	0.1mg	PO	prn	MR
<b>O</b>	24/1/19	Slan K	100mg	PO	bid	MR

HYPERSEN	
NK D	
Voltaren	
DICLOFENAC	100mg
(in 100mg sach)	12ly
	Sammel



# E-MEDICINE NZ CONTEXT

**HISAC**  
Health Information  
Strategy Action  
Committee

ePharmacy  
Sector Leaders  
Forum

ePharmac  
yAction  
Plan

Universal "list  
of medicines"

GP to Rx Pilot

**HISO**

Medicine Term  
Messaging Stds  
Expert Advisory  
Groups

Universal  
eRx  
Message  
Medicine  
Terminology

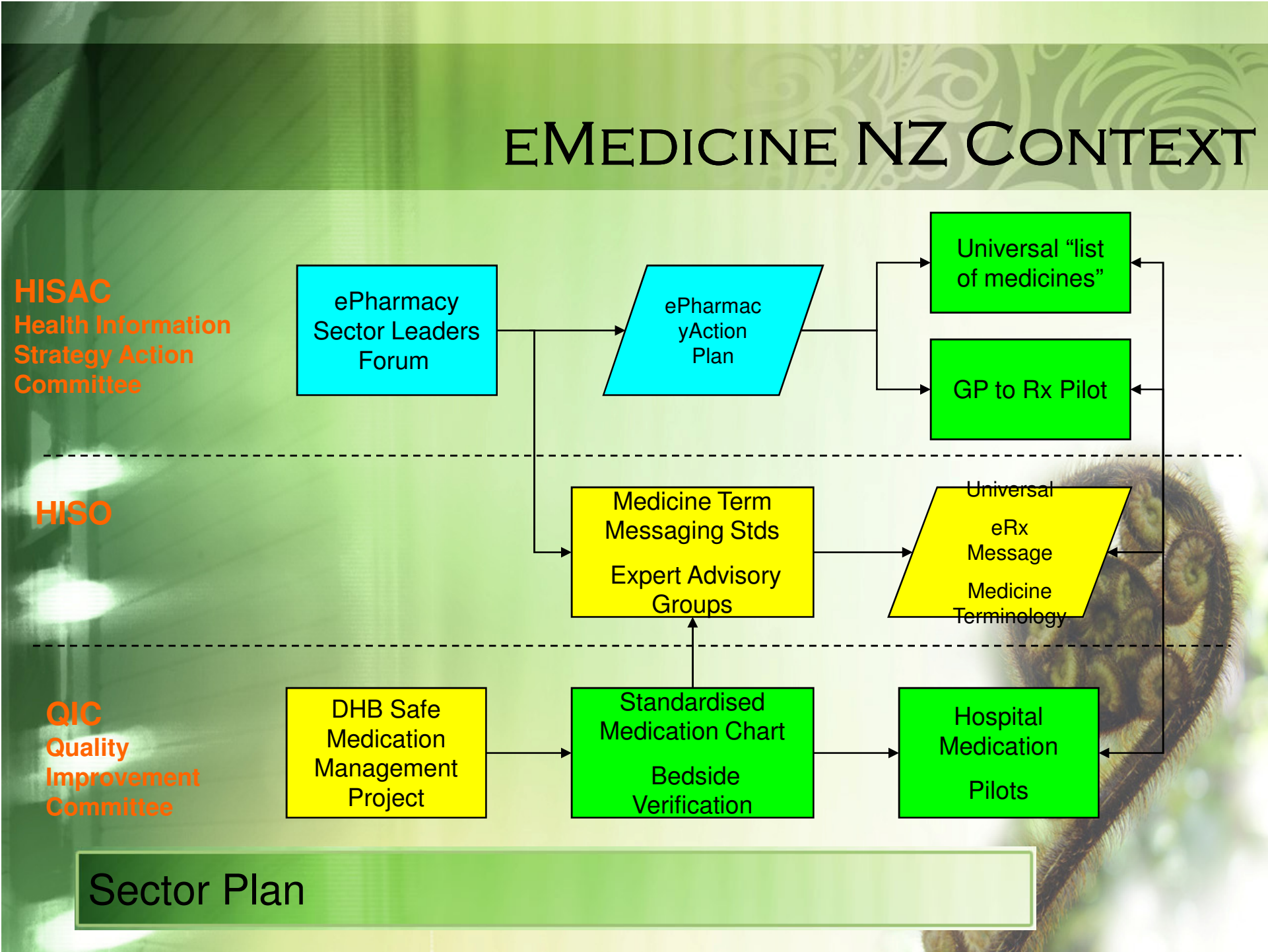
**QIC**  
Quality  
Improvement  
Committee

DHB Safe  
Medication  
Management  
Project

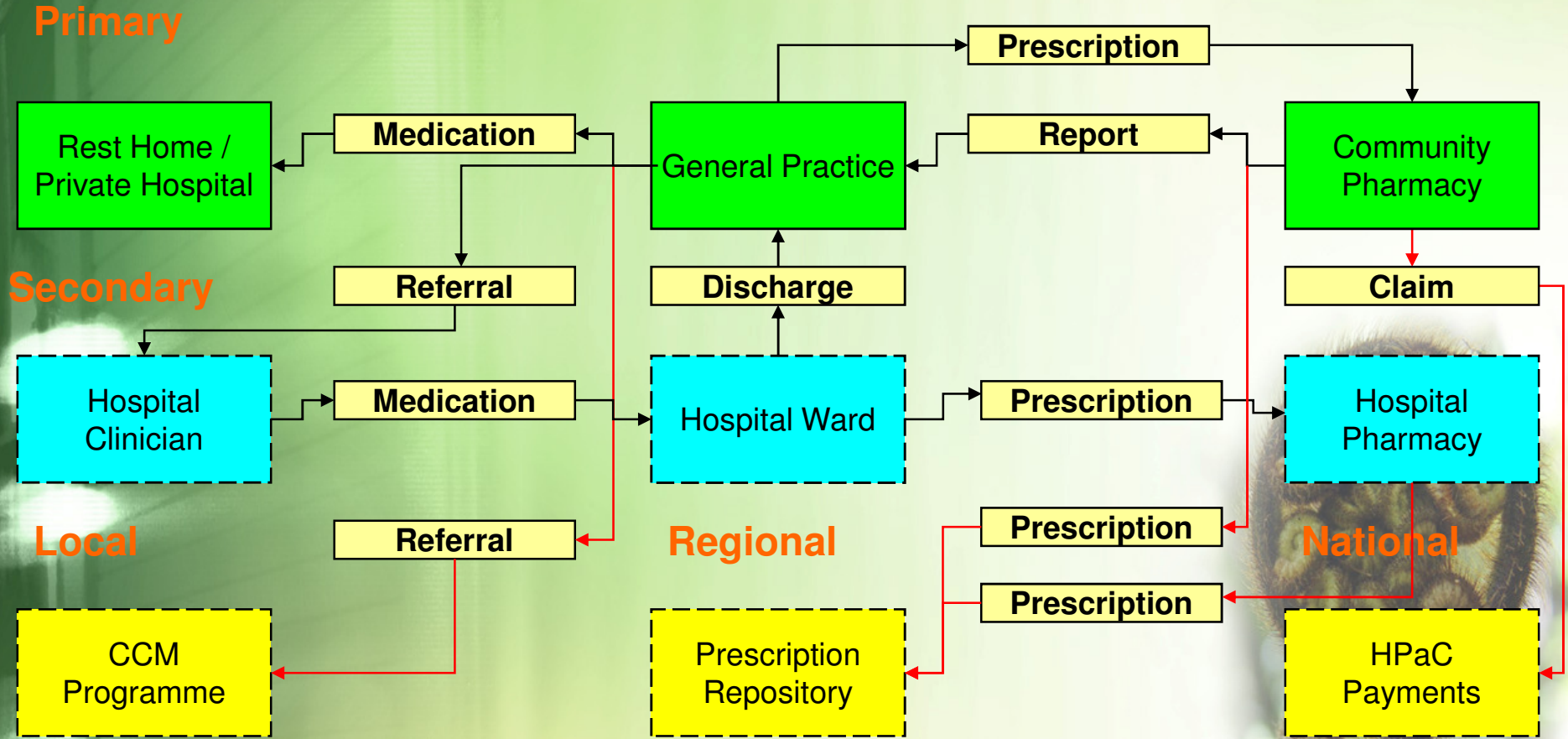
Standardised  
Medication Chart  
Bedside  
Verification

Hospital  
Medication  
Pilots

Sector Plan



# E MEDICINE NZ CONTEXT



Universal Medicine Message

# E MEDICINE NZ CONTEXT

## New Zealand

## Australia

## UK

### Prescribing

MIMS  
BNF  
PHARMAC schedule  
IPA & PHO CME Guides  
Hospital Lists

Australian Medicine  
Terminology (AMT)  
(Snomed CT)

NHS Dictionary of  
Medicines &  
Devices (dm+d)  
  
(Snowmed CT)

### Dispensing

Guild Catalogue  
Pharmac Schedule  
(Pharmacodes)

Australian Catalogue  
of Medicines (ACOM)  
(GS1 Net)

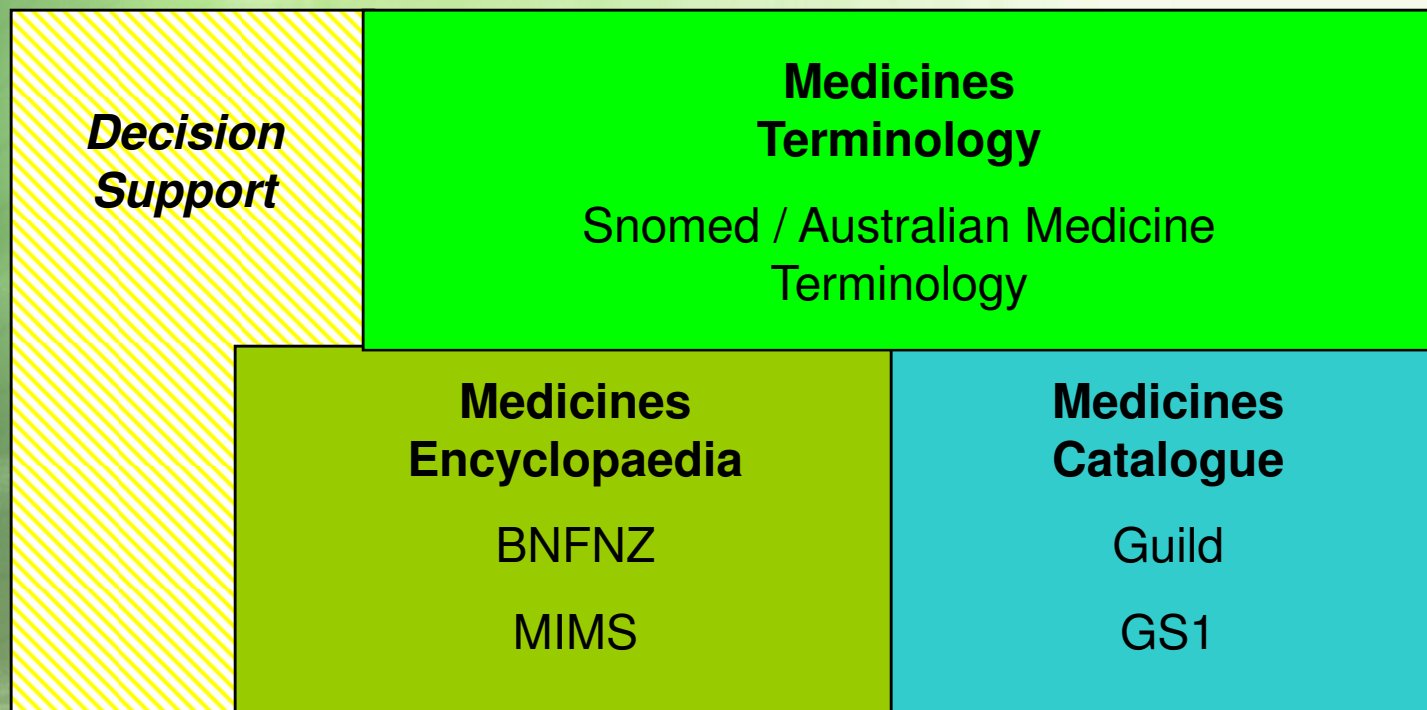
Supply Chain  
Pharmaceutical  
Products  
  
(GS1)

### Distribution

Current Lists and Codes

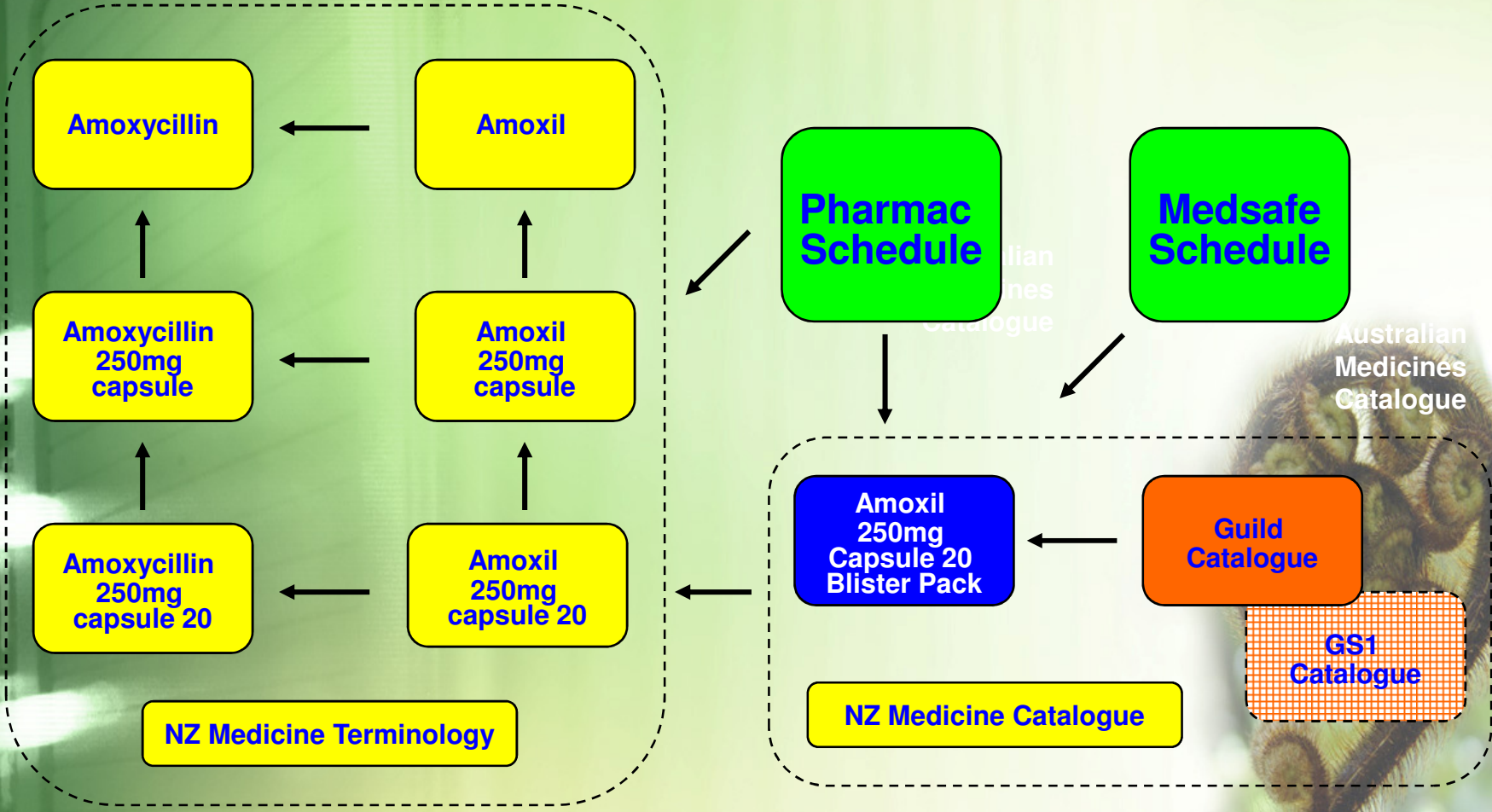


# EMEDICINE NZ CONTEXT



National Medicines Reference System

# EMEDICINE NZ CONTEXT



Universal Medicines List

# SAFE MEDICATION MANAGEMENT

## Challenge

- 5,000 Patient Medication Errors a year
- 3,500 Patients Temporarily Disabled
- 400 Patients Permanently Disabled
- 150 Patients Die





# SAFE MEDICATION MANAGEMENT


## History

- GS1 NZ
- Ministry of Health Official
- Minister of Health
- “Barcoding Project”
- Quality Improvement Committee
- Lead District Health Board



# SAFE MEDICATION MANAGEMENT

## Quality Improvement Committee Projects

- Optimising Patients Journey
  - Management Healthcare Incidents
  - Infection Prevention and Control
  - National Mortality Review Systems
  - Safe Medication Management
  - Improving Customer Participation
  - Education and Training in Quality Improvement
- 

# SAFE MEDICATION MANAGEMENT

## Objectives

- Reduce the number of medication errors in NZ
- Reduce the number of patients who are permanently disabled or die as a result of medication errors
- Reduce the costs associated with remedial treatment





# SAFE MEDICATION MANAGEMENT

## Eight Hospital Projects

- Standardised Medication Chart
- Medicine Reconciliation
- Standardised Hospital Medicine Systems
- eMedication Record, ePrescribing
- Link Medicine Management Systems
- Unit Dose Packaging
- Introduction Bedside Verification
- Training

# SAFE MEDICATION MANAGEMENT

## Four Sector Projects

- Universal eMedicines List
- Universal eMedicine Messaging
- ePrescribing GP to Rx
- Sector Collaboration





