

From dispensing and  
counseling to patient care (?)

# 21st century community pharmacy

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# WHAT WE DO NOW?

- Dispense
- Counsel, give instructions, check DDIs
- Conduct medication review
  - Improving IT-tools, e-prescription

# CURRENT DEVELOPMENTS

- Economic constraints (new medicines expensive, generic substitution, dropping prices)
- Pharmacy chains: profit
- Wider selection of non-medicinal products



# CURRENT DEVELOPMENTS

- Cosmetologists
- Beauty salons inside pharmacies

# CONSIDERATIONS

- Mental wellbeing in addition to skincare?
- Isn't there enough competition already?
- Is this the thing we were trained for? What are we needed for?

# CURRENT DEVELOPMENT

- Prices of Rx medicines decrease => Switch from Rx to OTC status => Wider OTC selection
- E.g. In Finland
  - Day after pill
  - Naproxen –tablets
  - Sumatriptan
  - Orlistate
    - Obligation for counselling

# PHARMACIST PRESCRIBING

- Oregon, California, WA: Pharmacist allowed to prescribe oral contraceptives & contraceptive patches for women aged 18 or older
- California: Prescribe travel medicines (e.g., scopolamine patches, promethazine)
- Canada: oral herpes, urinary tract infection, vaginal yeast, atopic dermatitis, thrush following corticosteroid inhaler use...) if earlier diagnosed by a doctor

# CURRENT DEVELOPMENT

- We are trained to understand medicines
- Need to keep up knowledge and gain new

**POSSIBILITY TO BE  
MORE  
RESPONSIBLE FOR  
PATIENT CARE**



# CURRENT DEVELOPMENT/WIDER

○ Often available only for restricted patient groups, evaluation

# SELECTION/PRESCRIBING

○ Counselling mandatory

○ New support tools

○ E.g. In Finland: counselling support for iPad

○ E.g. In Ireland: tools for evaluation and documentation (emergency contraception, seasonal influenza vaccination...)

# SWITZERLAND: netCARE

- SOPs/algorithms for 23 situations e.g., eye infections, urinary tract infection
  - Triage: 1) treatment by pharmacist 2) referral to GP 3) video consultation with a GP
  - Some health insurances cover the cost (30-60 CHF)
- 1/5 of pharmacies accredited

Hersberger and Messerlin. *Drugs & Aging* 2016;33(3): 205-211

# CURRENT DEVELOPMENT/Testing

Monitoring, clinical testing  
related to chronic conditions

- Blood tests: glucose, Hb1AC, INR, chol...
- Blood pressure

# LABORATORY TESTS

- California:
  - mandate tests to monitor and maintain the efficacy and toxicity of drug

# CURRENT DEVELOPMENTS

- Vaccinations
  - E.g., seasonal influenza



# VACCINATIONS

- Ireland, New Zealand: Seasonal influenza
- Great Britain: HPV, Influenza
- Portugal: influenza, pneumococcal, papilloma virus, hepatitis B with a prescription
- US, Canada: differences between states, e.g., travel vaccination services

# IN FINLAND

- Not allowed in pharmacies => need for a authorization as a private health care provider => Nurse appointments: Pharmacy health points



# IN FINLAND

- Health control service
- Waist, weight, body composition => counselling





# FUTURE: HEALTH PROMOTION

- Health measurements/monitoring via various apps (sleep, blood pressure, activity, weight)
  - ⇒ Individualized counselling on exercise, nutrition...
  - ⇒ Personal trainers?



# SERVICES TO INCREASE MEDICATION SAFETY AND ADHERENCE

# MEDICATION REVIEW

- Optimization of medication
- DDIs, doses, appropriateness, care guidelines, ADRs...

<i>Characterisation</i>		<i>Information available:</i>		
<i>Type</i>	<i>Level</i>	Medication history	Patient interview	Clinical Data
<b>Type 1</b>	Simple	+		
<b>Type 2a</b>	Intermediate	+	+	
<b>Type 2b</b>		+		+
<b>Type 3</b>	Advanced	+	+	+

# MEDICATION REVIEW IN FINLAND

Training course for pharmacist to conduct comprehensive medication review (CMR) since 2005

## RATIONAL PHARMACOTHERAPY AND USE OF MEDICINES (5 CP)

- Therapeutic guidelines
- Epidemiology
- Ethics
- Patient counselling
- Patient safety

## Clinical pharmacy and pharmacotherapy (11 cp)

- Clinical chemistry
- Pharmacokinetics
- Gerontology and geriatrics
- Special topics: heart diseases, Alzheimer's disease, diabetes

**35 ECTS CREDITS**

**1.5 YEARS**

## MULTIDISCIPLINARY COLLABORATION (12 CP)

- Local process plan
- Medication reviews
- Reporting
- Case conferences
- Evaluation

## OPTIONAL STUDIES (3 CP)

- Literature reviews
- Short courses
- Examinations

# MEDICATION REVIEW

- Great to be more engaged with patients' care
- Multiprofessional collaboration
- Need for funding
  - E.g. Australia has succeeded

# Support from technology

- Medication safety tools
  - Inxbase (Interaction checks)
  - Riskbase (risk for adverse effects, e.g. hypotension)
  - Renbase (renal impairment), heparbase (liver)

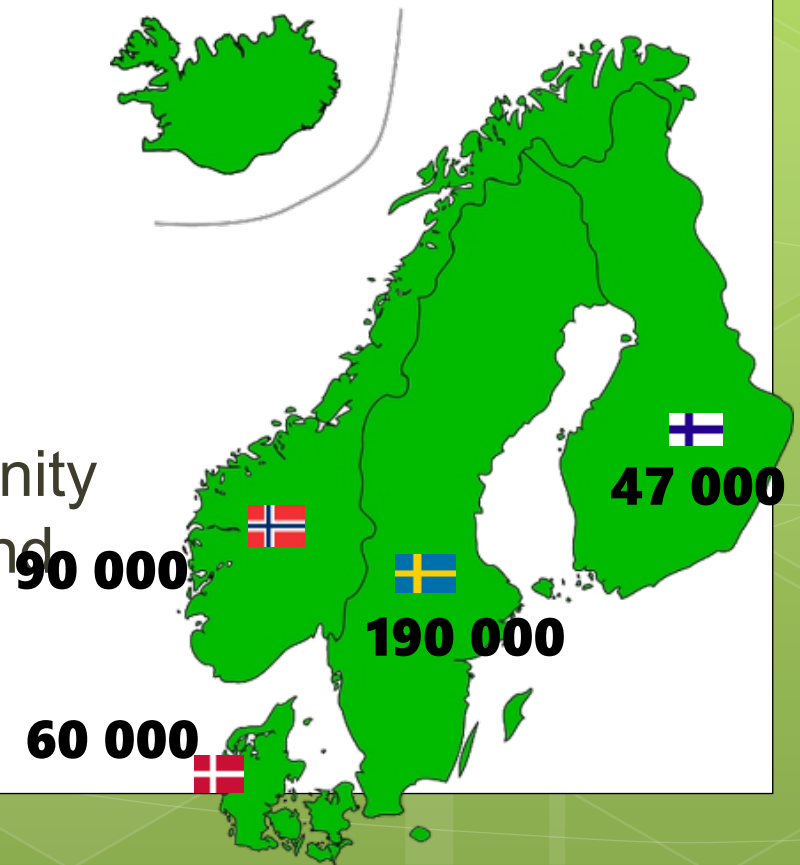
# AUTOMATED UNIT DOSE DISPENSING (ADD)

- Medicines packed in individualized daily doses
- Medication safety: no dispensing errors, easier to take/give, time-saving, updated medication list



# ADD

- Clear benefits for the patients and society
  - Easy to take
  - Lack of nurses
  - Less medicine waste (100 000 000 €/year)
- First reimbursable community pharmacy service in Finland





# ADD and QR-code

- QR code in medication list
- Pictures
- Medicines guidebook



QR-code



# ADD reminder/dispensing

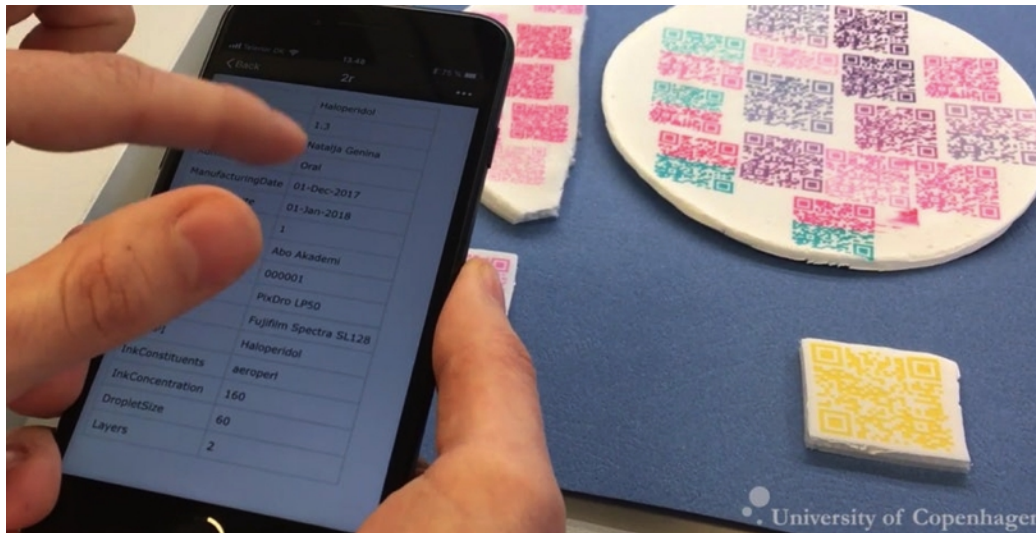


# PERSONALIZED MEDICINE

- Genotype/gene testing?
- Individualized/tailored drug doses manufactured/packed in a pharmacy?

# PERSONALIZED MEDICINE

- Printed, edible QR codes/University of Copenhagen



# CURRENT DEVELOPMENTS

- REMOTE SERVICES

- On-line counselling

- Internet pharmacies

- Posting of medicines to patient's home?

# REMOTE SERVICES IF FINLAND

- Many normal online-pharmacies with counselling via chat/phone
- RemoMedi VideoPharmacy



# WHAT DO PEOPLE NEED?

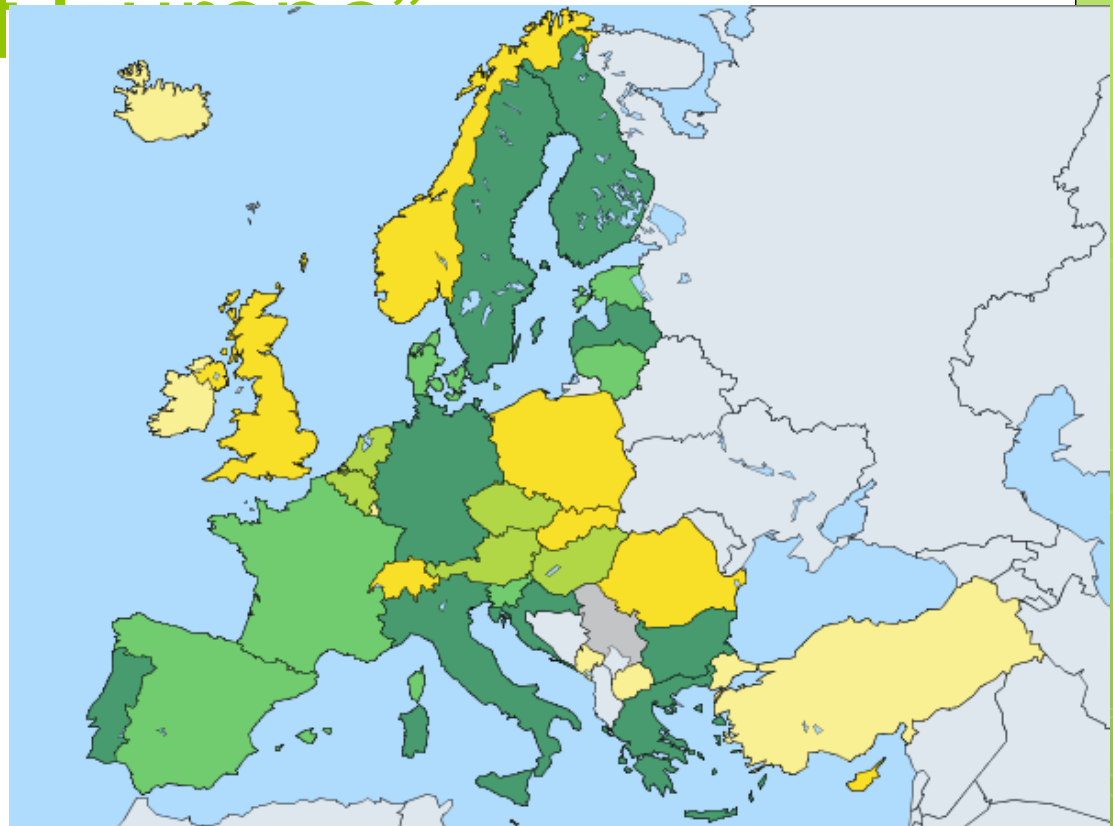
- How do we entitle our profession? Why are we still needed in the future?

# AGEING POPULATION

## “Greying of Europe”

% of population aged 65 and older in 2017

- Increasing use of medicines



Legend

8.3 - 14.4

14.4 - 18.1

18.1 - 18.8

18.8 - 19.4

19.4 - 22.3

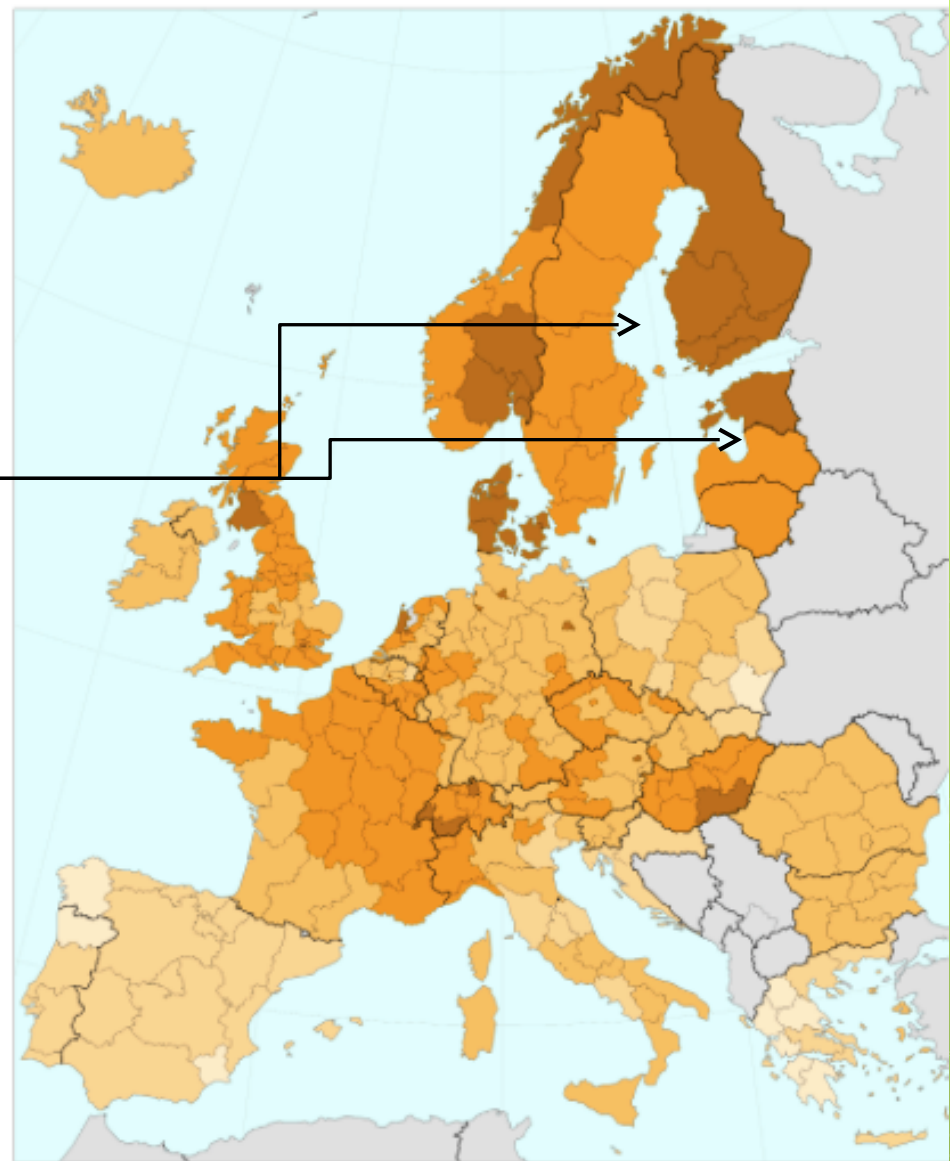
Not available

Minimum value:8.3 Maximum value:22.3



% of population aged 65 and older living alone (2011)

>30%



(% share of elderly population)

EU-28 = 28.5

- < 20
- 20 - < 25
- 25 - < 30
- 30 - < 35
- ≥ 35
- Data not available

Administrative boundaries: © Eurostat

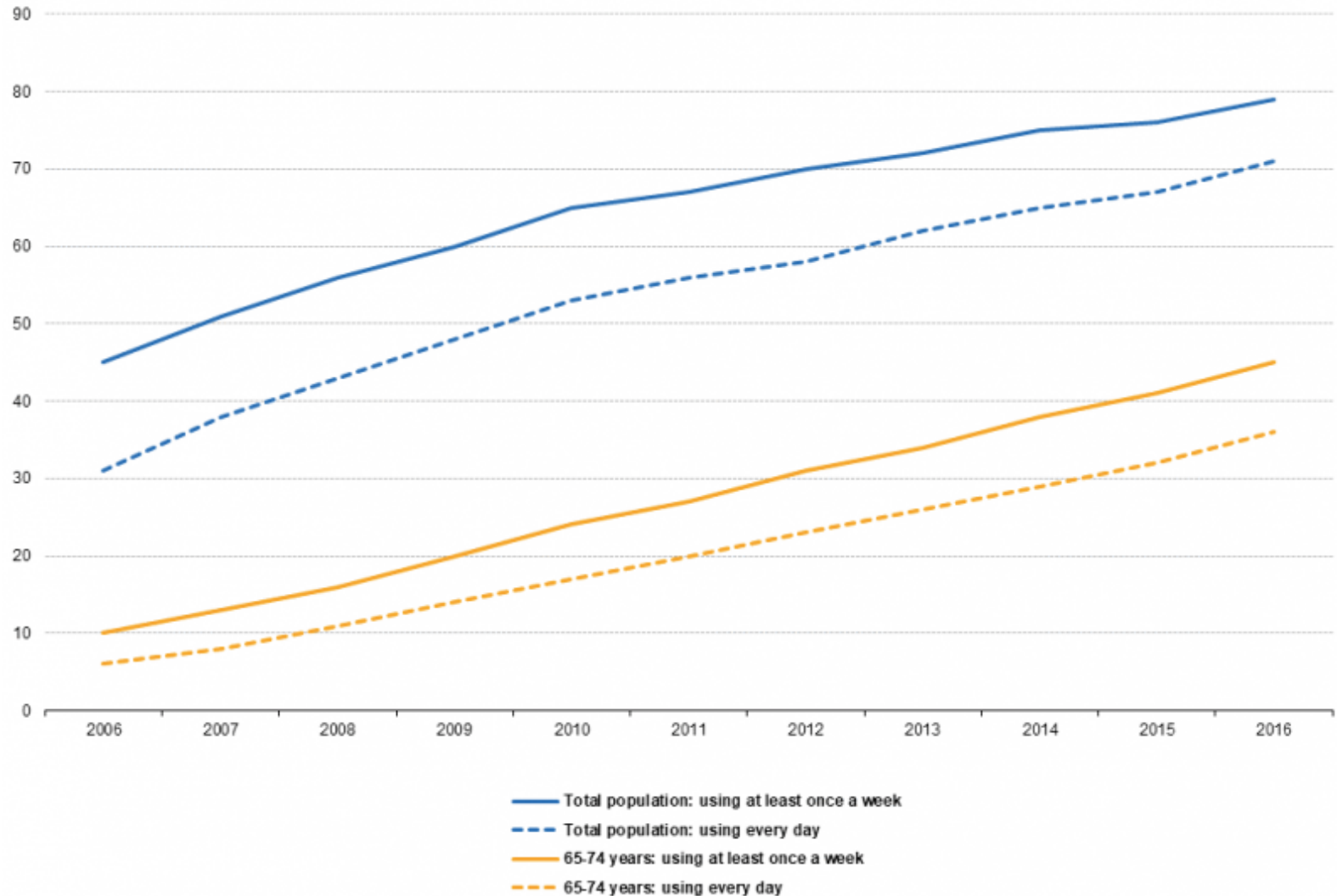
Cartography: Eurostat — GISCO



# AS A RESULT

- Need for services for older people
  - Appropriate medication
  - Ability to take medicines as instructed
  - Services targeted to home

# USE OF INTERNET



Note: 2006, EU-27.

Source: Eurostat (online data code: isoc\_ci\_ifp\_fu)

# USE OF INTERNET

- Great possibility for internet pharmacies and home delivery
- Internet-based counselling and medication review services

On the other hand:

**FACE-TO-FACE SERVICES WILL BE VALUED MORE THAN BEFORE**

# WHAT WE NEED TO DO

- Common goal within the profession
  - Prioritize
- Convince decision makers, politicians, authorities
- Built
  - Training systems/continuing education
  - IT-systems

# FINLAND



- Association of Finnish Pharmacies (the owners' association) published 28 suggestions to develop community pharmacy system under the theme “New pharmacy”
- How to advance beneficial outcomes of drug therapies? How to increase medication safety? How to decrease medicine prices?

# SUGGESTIONS

1. Bigger role for pharmacies in follow-up
  - Access to e.g., therapeutic goals and care outcomes => better counselling and support for patients
2. Health promotion, prevention via counselling and services
3. Medication review for polypharmacy patients
4. Care of minor ailments, wider OTC selection
5. Seasonal influenza vaccinations

# SUGGESTIONS

7. Advance the number of health points to grow on areas where there are no other health care services
8. Provision of audit services, medicine cabinets etc. to elderly assisted care units and other social care units
9. ADD within budgeted health care services
10. New medicines service



# SUGGESTIONS

11. Increase number of pharmacy outlets
12. OTC medicines only from pharmacies to ensure correct use
13. 14. 20. Increase opportunities to establish subsidiary pharmacies, service points and internet pharmacies
15. Assortment of non-medical products to support health care goals
16. Ensure surveillance resources (of authorities)

# SUGGESTIONS

18. Renewal of medicine prices: smaller margins dependent on the product price, greater portion dispensing fee -dependent

19. National medication list: possibility for pharmacies to share information with GP, document OTC medicines

21. Ease purchase of Rex-medicines

22. Ease regulations relating to home deliveries and pick-up lockers

23. Ease proxies ability to transact via electrical

## 24. Solutions to support successful treatment outcomes and adherence

- Access to therapeutic goals agreed between GP and patient

  - Better communication channels e.g., during hospital discharge

  - Reminder services

## 25.-28. more effective medicine reimbursement system

# SPECIALISATION

## DECIDE THE FOCUS OF YOUR PHARMACY

- Dispensing, counselling, ePharmacy
- Medication review and other clinical services
- Beauty, sports, health testing
- Laboratory testing and health care services?