

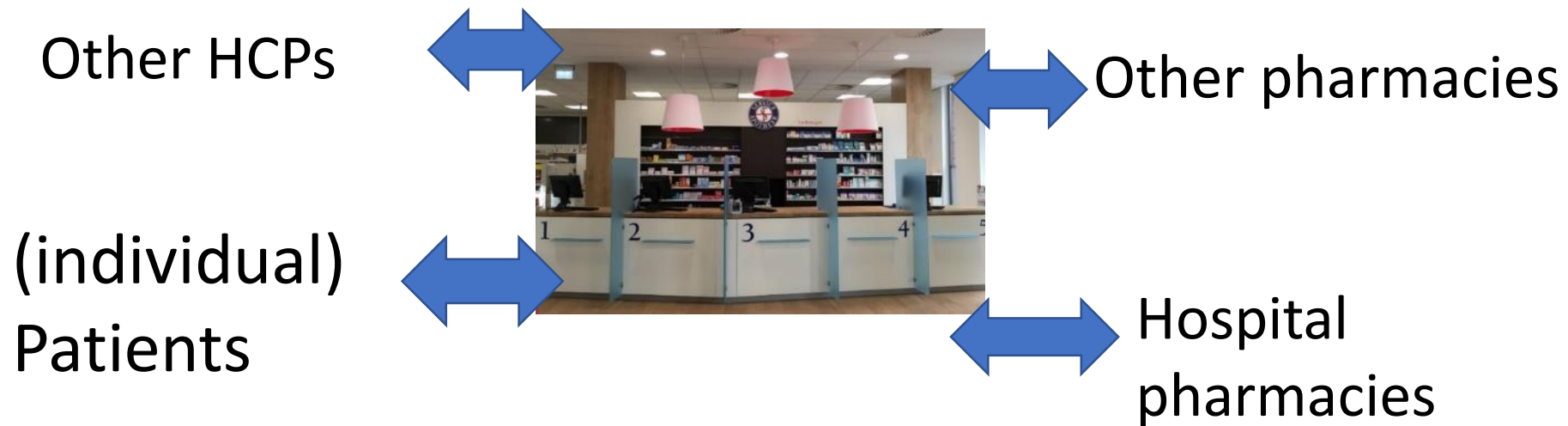
PCNE Workshop 4

Bled 2017

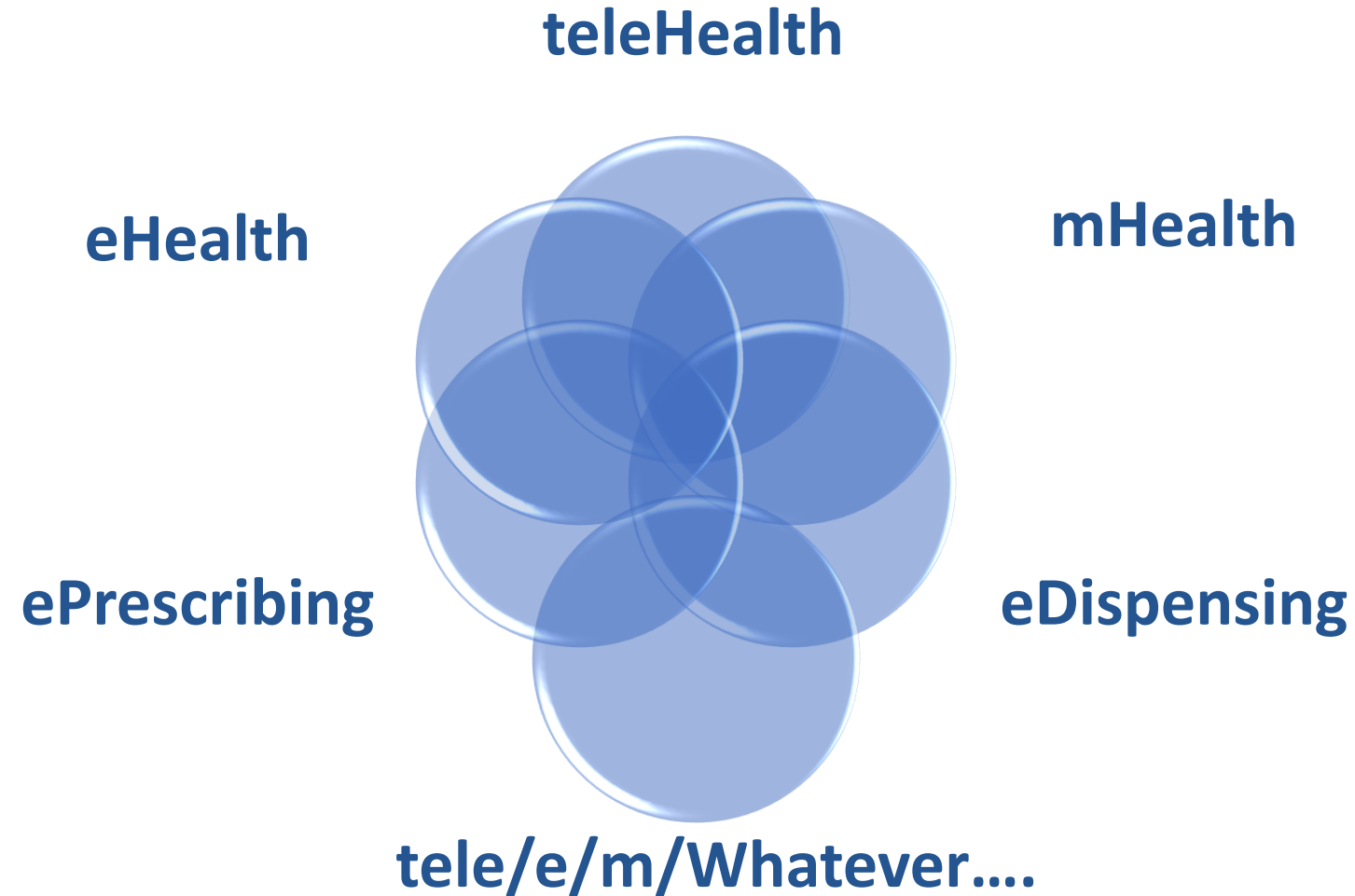
eHealth / ePharmacy

What is ePharmacy?

- Electronic patient records
- Electronic dispensing including decision support in handling alerts
- Electronic communication with health care providers (HCPs) and patients



What do we mean by “eHealth/ePharmacy”?



“eHealth is the use of ICT in health products, services and processes combined with organizational change in healthcare systems and new skills, in order to improve health of citizens, efficiency and productivity in healthcare delivery, and the economic and social value of health. eHealth covers the interaction between patients and health-service providers, institution-to-institution transmission of data, or peer-to-peer communication between patients and/or health professionals”

European Commission eHealth Action Plan 2012-2020

**Q. What does eHealth /
ePharmacy mean to
you?**

What can eHealth/ePharmacy do?

- Central enabling tool: pharmacy administration and information system
- Support dispensing and administrative/logistic processes
 - Decision support
 - Alerts, drug-drug interactions, contra-indication, double medication
 - Data storage, management, transmission
 - Computerised prescription entry

- **ePharmacy started out addressing administrative and logistical functions/processes**
- **Today 100% of pharmacies are computerized and 100% have internet connections**
- **Developed over the past decade to include elements of PhCare**

What is the value of eHealth/ ePharmacy?

Economic Clinical Humanistic Outcomes (ECHO model)

- Reduce costs
 - More efficient and effective health care
- Improvement of clinical benefit
- Increased patient empowerment and satisfaction
 - Support self-management
 - Enable patients to take responsibility

- **ePrescribing**
- **Adherence services**
- **Services for new medications**
- **Locating a pharmacy**
- **Checking stock**
- **Online consultation**
- **Ordering an OTC online with consultation**
- **Monitoring**
- **Reminders**
- **Management clinical information (HCP or patient)**
- **Storing/managing data on PhCare/interventions**
- **Entry point to the health system**

Development of eHealth/ePharmacy with respect to pharmaceutical care

- Should be designed with the aim to support care
- What do HCPs really need?
- What are the wishes and needs of patients?

However?

ZORGVISIE | ict

Zoeken...



Abonneren op
Zorgvisie magazine
of ICT

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26 jan 2017 3633

RVS: bouw een 'e-health snelweg'

De invoering van e-health in Nederland gaat te langzaam. Dit schrijft de Raad voor Volksgezondheid en Samenleving (RVS) in een advies aan minister Schippers. De rijksoverheid kan versnelling aanbrengen door meerjarenafspraken te maken over brede toepassing van e-health en door een 'e-health snelweg' te realiseren waardoor data-uitwisseling makkelijker en goedkoper wordt. Ook moet het Rijk volgens de RVS e-health financieel aantrekkelijker maken

Abonnement op Zorgvisie



Zorgvisie brengt in het magazine voor managers en bestuurders interviews en artikelen over kwaliteit, beleid en innovatie. Blijf op de hoogte van de laatste ontwikkelingen in de zorg en neem een abonnement op Zorgvisie.

[Bekijk de aanbiedingen](#)

laatste nieuws

Woerden wil i-pgb voortzetten

Schippers: verbod goodwill niet mogelijk

Translation

- Recommendation of the Dutch Council for Health and Society: create a high road for data exchange in eHealth???????
- But.....HCPs themselves are responsible for the construction
- This seems a general solution to promote the digitalisation of care
- Risks
 - Too large
 - Aim too diffuse
 - No priorities
 - Design and construction unclear
 - Compatible with existing systems

- **Support practice and care**
- **Interoperability**
- **Relevance to end users**
- **Engaging with end users
(both HCPs and patients)**

Importance of the decrease of information asymmetry

- Know what the other HCPs do
- Know the responsibility of other HCPs
 - This also accounts for home care
- Know what patient/care expects and wants
- Increase of integrated care for specific patient groups e.g. diabetes
- Increase of patients with multimorbidity
- Vulnerable patients
- Longer living at home instead of living in nursing homes

- **Access to shared-care records**
- **Read-write access for pharmacists**
 - **As appropriate for medication safety**
- **To facilitate seamless, inter-/intra-sectoral communication**

How to translate guideline recommendations to a specific patient?

- Aim: to deliver optimal care to individual patients
- E.g. a diabetes patient with a total cholesterol level of 4.5 mmol/l may not benefit from a statin
- More information on the patient, the disease, the treatment, the effects of treatment and the history contributes to tailoring treatment
- E.G. When the BP decreased from 175 mmHg to 145 mmHg using 3 antihypertensives, more effect may not be expected. This means a risk reduction of xxxxxx
- Creating pathways for care

Linking data of pharmacy, hospital pharmacy, primary care, laboratory

- For epidemiological studies > 25 years
- Systems are developed for the support of administration
- Currently also being developed for the support of health care
- Creates increased possibilities for tailoring treatment
- Anonymised rough data are extracted from the systems
- Data cleaning
- Information and adviced can return to the information systems
- Inconsistencies come up
- HCPs are reluctant
- Fear for claims of patients

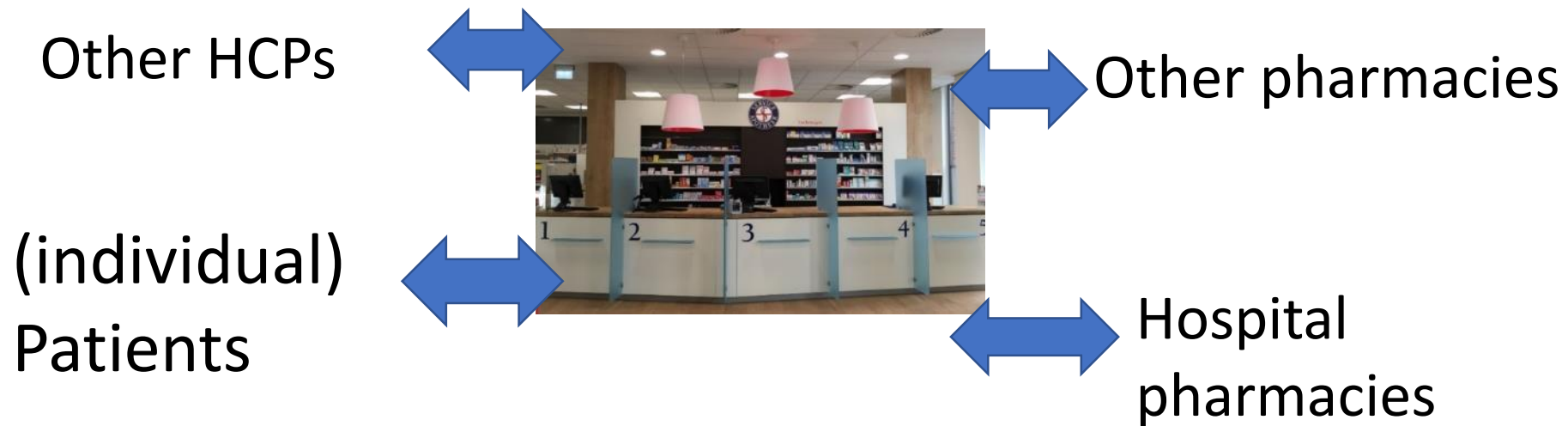
Technology can support

- To decide what to do and what not to do
- Differentiate between patients
- E.G. stable diabetes patients can be monitored once a year instead of 4 times a year

- **Personalised care**
- **Big data/pharmacoepidemiology**
- **Evidence-informed practice**
- **Quality of data**
- **Education & training of HCPs**

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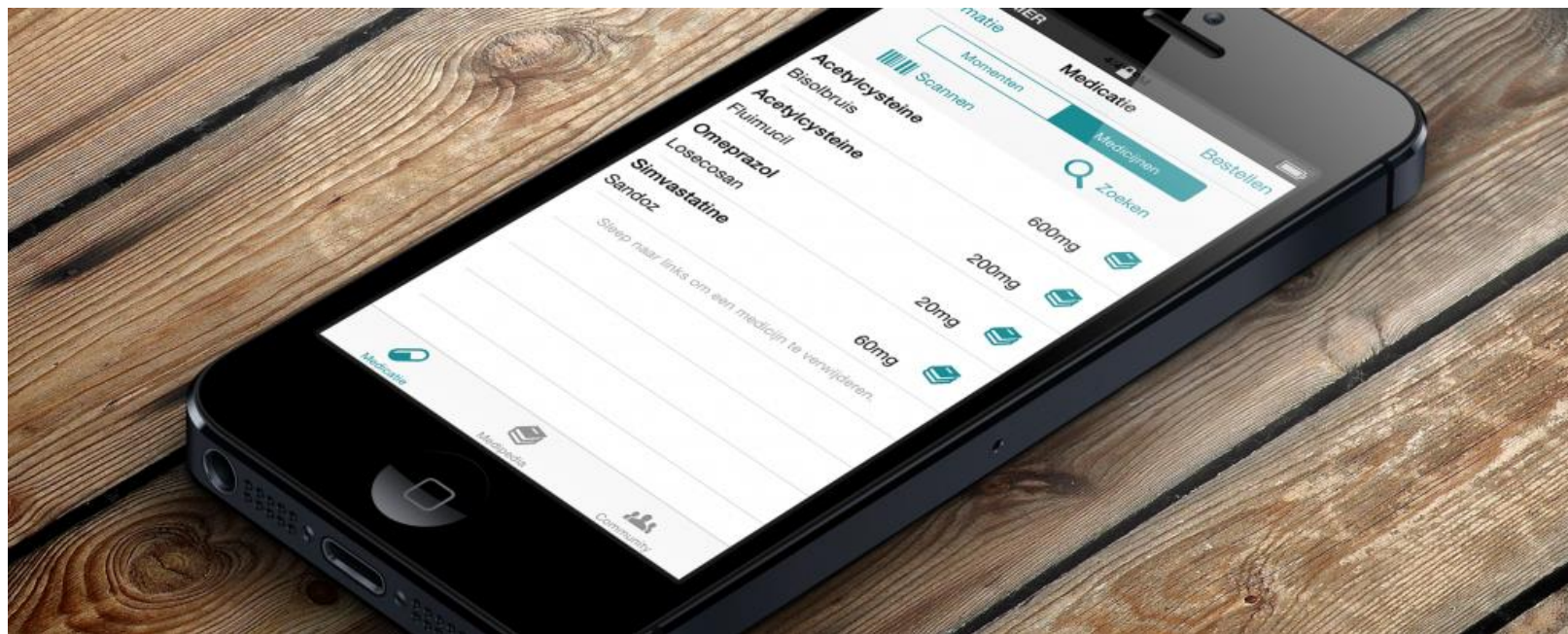


- **eHealth tools will not replace the role of the pharmacist**
- **They complement it and their practice**
- **Not a threat?**

Dutch pharmacy practice

- Pharmacy information and administration system
 - eMedication records, decision support and surveillance, eDispensing, counselling
- [Track and trace www.receptlocatie.nl/maxision/recept-locatie-film](http://www.receptlocatie.nl/maxision/recept-locatie-film)
- Smart filling and central filling concepts
- Systems to document provided care, e.g. medication reviews, clinical rules, adherence support, continence support
- Several Apps available

MedApp



Aim:

(1) to explore the use of eHealth applications as practical tools in providing every day pharmaceutical care

(2) Pharmacy => ePharmacy, to what extent?

(3) investigate ePharmacy

(4) implement ePharmacy

- Methods
- Brainstorm
- Presenting
- Reporting

- Other ideas?

Set-up of the workshop

- Phase I Introduction
- Phase II Problem definition/Defining objectives/Developing strategies
- Phase III Expected results/Limitations/Implementation
- Phase IV Consolidation

Phase II

- Questions
- Which framework you know in your professional setting or your pharmacy practice
- Did you develop or investigate eHealth, mHealth and telehealth applications or did you participate in a project group?
- What are the priorities?

Policy Statement:

1. Intro of what eHealth is in relation to pharmaceutical care / pharmacy practice and the means which are used
2. Documentation of medication use of patients to improve use (safe, rational effective – check for DRPs) and use of best practice
3. Interprofessional collaboration / integrated care for the benefit of the patient (access point via pharmacy)
4. Involve end users and their needs (recognition that pharmacists should be consulted) and consider continuous education / training to advance eHealth literacy skills
5. Involve pharmacists in all national eHealth Action Plans

Policy Statement:

6. Facilitate pharmacists' own eHealth solutions (to improve practice/optimize workflow/communication with patients and other HCPs)
7. Evaluate & recommend the implementation of eHealth solutions for supporting the role of the pharmacist in facilitated self-medication
8. With the aim of protecting the patient, all activities should be in accordance with the relevant EU legislation (e.g. privacy, safety)
9. Recommendations for communication of the implementation of eHealth supported intervention strategies in pharmacies to improve the use of medications
10. PCNE makes reference to the recommendations of the PGEU 2016 Statement on eHealth and supports their implementation in Member States' policies



eHealth Solutions and Pharmacy: PCNE Policy Recommendations for Implementation

10th PCNE Working Conference **Pharm.Care@BLED** 2017
Workshop: *Exploring the impact of eHealth on pharmaceutical care*



1

INTRODUCTION

to eHealth and Pharmaceutical Care

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Action

1. Intro of what eHealth is in relation to pharmaceutical care / pharmacy practice and the means which are used

INTRODUCTION



eHealth

eHealth has been defined in several ways and several EU and global Institutions have also provided definitions.

The WHO defines eHealth as *“eHealth is the use of information and communication technologies (ICT) for health. Examples include treating patients, conducting research, educating the health workforce, tracking diseases and monitoring public health”*.

The European Commission defines eHealth as *“eHealth is the use of ICT in health products, services and processes combined with organizational change in healthcare systems and new skills, in order to improve health of citizens, efficiency and productivity in healthcare delivery, and the economic and social value of health. eHealth covers the interaction between patients and health-service providers, institution-to-institution transmission of data, or peer-to-peer communication between patients and/or health professionals”*

Oh H., Rizo C., Enkin M. and Jadad A. What Is eHealth (3):A Systematic Review of Published Definitions. *Med Internet Res* 2005;7(1):e1 doi:10.2196/jmir.7.1.e1
WHO 2012 <http://www.who.int/topics/ehealth/en/>
European Commission 2012 <https://ec.europa.eu/digital-single-market/en/news/ehealth-action-plan-2012-2020-innovative-healthcare-21st-century>

2

BACKGROUND

on Policy, Practice and Research

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Action

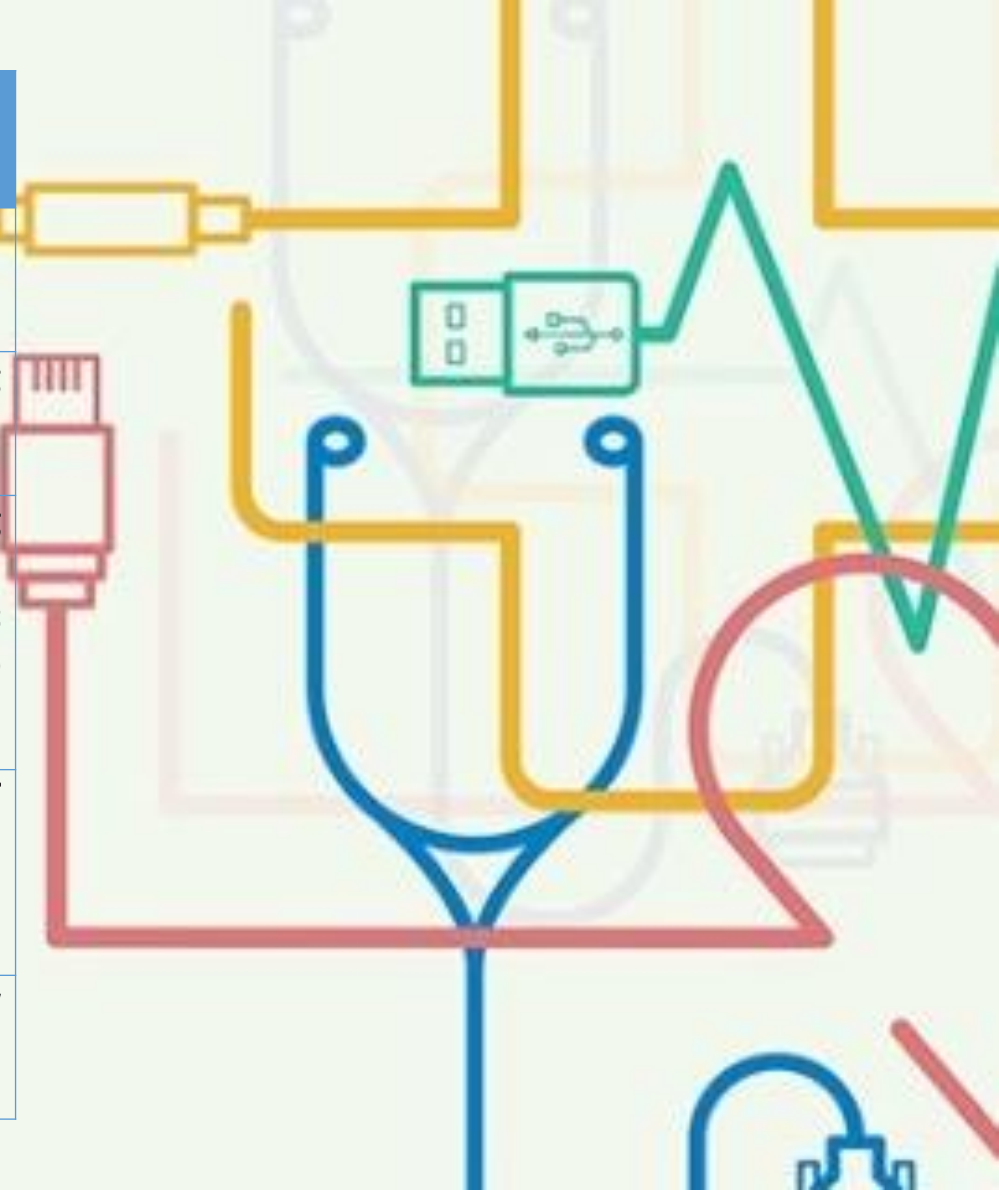
2. PCNE makes reference to the recommendations of the PGEU 2016 Statement on eHealth and supports their implementation in Member States' policies

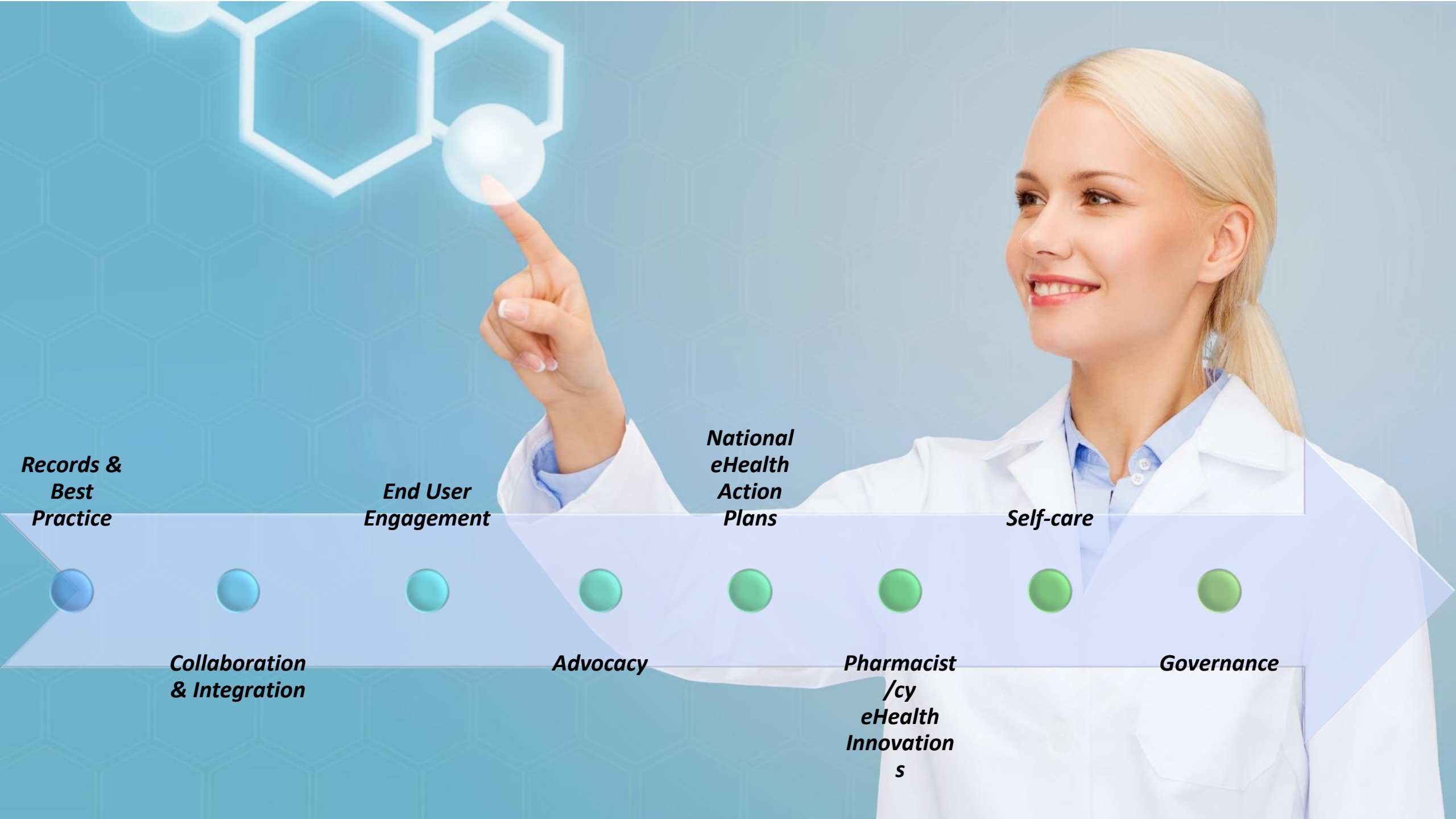
**BACKGROUND on
Policy, Practice and
Research**



PGEU's recommendations on eHealth:

1. Policy makers, ICT developers and other healthcare professionals should engage with pharmacists as experienced users to develop eHealth policies and services at local, regional or national levels as appropriate;
1. eHealth should be integrated into health systems complementing and supporting existing practice, with pharmacy potentially as a link between several services, organisations and infrastructures;
1. Electronic health records should be linked with ePrescribing systems, thus allowing healthcare professionals involved in patient care to access necessary patient information from the electronic health record. There also should be a facility to update the electronic health record with relevant information when necessary, in order to increase the capacity to identify and address potential medication and patient safety-related issues;
1. Communication and collaboration between patients, healthcare professionals and ICT developers is crucial to obtain the full potential of eHealth technologies and to build confidence and trust. When developing guidelines for eHealth, policy makers are called upon to meaningfully involve their end users;
1. The community pharmacy profession should be recognised, supported and adequately reimbursed for their continuous investment in eHealth, ICT infrastructure, eSkills of the workforce and contribution to improved health outcomes and reduced healthcare costs.





Records & Best Practice

End User Engagement

National eHealth Action Plans

Self-care

Collaboration & Integration

Advocacy

Pharmacist /cy eHealth Innovations

Governance



RECORDS and BEST PRACTICE

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RECOMMENDATION

Implementation of suitable algorithms and methods of data extraction

Collaboration between software developers, pharmacies and patients

Access to exhaustive data and seamless communication between HCPs

Standards to detect and evaluate inappropriate medication

Willingness of patients to share data in accordance to privacy legislation

Digitised data will feed easily into research projects

Action

3. Documentation of medication use of patients to improve use (safe, rational effective – check for DRPs) and use of best practice

RECORDS & BEST PRACTICE

Barriers

- Lack of time
- Lack of standards / information / suitable algorithms to indicate inappropriate medication
- Stakeholder uptake
- Lack of motivation
- Access to exhaustive data (fragmentation & interoperability of data)
- Obligation to react on data by pharmacist
- Unwillingness to patient to share data / privacy
- Health literacy
- Complexity of medication / regimen
- Lack of remuneration
- Acceptance by physicians

Facilitators

- Collaboration with software developers & pharmacies play a role in quality assurance
- Implement suitable algorithms and data extraction to evaluate
- Accreditation for implementation
- Remuneration for documentation and informing other HCPs / not dispensing a medicine
- Documentation of best practices (dissemination)
- Follow-up, feedback & support from patients (patient reported outcomes & satisfaction)
- Access to documentation by patients
- Branding as a personalised service
- Articulate data documentation

COLLABORATION and INTEGRATION

4



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RECOMMENDATION

Joint HCP educational programs

CPD, further training and education

Collaborative projects & public health activities

Joint remuneration

Institutional support

New legislation and enforcement and accountability

Clearly defined roles and agreement of roles

Sharing best practices on interprofessional collaboration

Action

4. Interprofessional collaboration / integrated care for the benefit of the patient (access point via pharmacy)

COLLABORATION & INTEGRATION

Barriers

- Lack of trust, communication
- Differing professional strategies
- Lack of understanding of others' roles
- Competition & commercial opposition
- Financial (dis)incentives, overlapping roles, dis-jointed remuneration
- Education and training
- Communication skills & unsupportive systems to communicate
- Lack of institutional support / prof bodies
- Interoperability information systems (between professions)
- Wrong professional self-esteem
- Dis-joint between care sectors
- Protectionism by GPs / pharmacy

Facilitators

- Joint educational programs (e.g; during the study)
- CPD, further study (intra-prof training)
- Collaborative projects & public health activities
- Joint remuneration (HCPs, payers)
- Institutional support (incl stimulation)
- New legislation and enforcement / accountability
- Clearly defined roles & agreement of roles
- Sharing best practices on interprofessional collaboration
- E-Health coach for pharmacists

5

END USER
ENGAGEMENT

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RECOMMENDATION

Consistent use of agreed terminology / nomenclature

Education on improving digital health literacy

Participation in eHealth projects

Collaboration with patients / patients' organisations / patient movements using eHealth

Pharmacies could consider resource allocation and workflow to incorporate eHealth solutions in providing patient care and maximising efficiencies

Action

5. Involve end users (patients, pharmacists, other HCPs) and their needs and consider continuous education / training to advance eHealth literacy skills

END USER ENGAGEMENT

Barriers

- Lack of interest from end users
- Language & low (digital)health literacy / lack of knowledge of end users, developers
- Lack of follow-up and monitoring
- Perceived lack of time and/or due to high complexity of solution (implementation & adherence to use)
- Lack of remuneration / incentives
- Lack of privacy
- Inadequate digital infrastructure & interoperability
- Insufficient understanding of future potential of eHealth
- Patient perceptions of pharmacy environment
- Sustainability of eHealth solutions
- Quality of the eHealth solution
- Perception of marketing activities by end users
- Investment costs too high

Facilitators

- Education on the potential of eHealth solutions to improve knowledge of benefits
- Education on improving digital health literacy / participation in eHealth projects
- Consistent use of agreed terminology/nomenclature
- Collaborating with patients / patients' organisations / patient movements using eHealth
- Adjusting pharmacy resources and workflow to incorporate eHealth solutions in providing patient care and maximising efficiencies
- Marketing, dissemination & use of digital media by pharmacies / prof organisations, in addition to traditional communication channels
- Positive feedback (stories) from early adopters



ADVOCACY

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RECOMMENDATION

Collect, audit, review and publish real-world evidence to support pharmacists' contributions in the provision of care to patients

Active participation and lobbying of pharmacists and professional bodies at relevant fora

Collaborate with patient representatives, physicians and other healthcare providers to promote the use of eHealth solutions during the medication review process and other services provided in the pharmacy

Action

6. Advocate for the recognition that pharmacists should be consulted in the development of eHealth

ADVOCACY

Barriers

- Lack of awareness from pharmacists, Institutions and health stakeholders
- Lack of visibility and participation by pharmacists at relevant fora
- Lack of perceived value / lack of convincing evidence of pharmacists' eHealth interventions
- Lack of effective lobbying
- Patient perceptions of pharmacy environment
- Uninclusive (to pharmacists) eMarketing activities and issues surrounding conflicts of interest

Facilitators

- Collaborating with patients / patients' organisations / patient movements using eHealth
- Collaboration with physicians and other HCPs
- Promoting use of eHealth solutions during medication review process and other pharmacy services / practices
- Collection of evidence (real world), audit and evaluation
- Publish evidence / HTA, EBM, clinical guidelines and best practices
- Active participation / visibility / engagement of pharmacists / prof associations at relevant fora
- Advocate for inclusion of pharmacists as a potential end user
- Creation / development of an Observatory / a certification body to evaluate & approve eHealth solutions
- Increase organised participation of pharmacists in health politics, policies

NATIONAL eHEALTH ACTION PLANS

7

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RECOMMENDATION

The national organisations that represent community pharmacy should actively promote community pharmacy as a relevant provider of eHealth and stakeholder in national eHealth Action Plans

The national organisations that represent community pharmacy should have an eHealth strategy for community pharmacy

Initiatives to generate scientific evidence to support the implementation of eHealth initiatives should be conducted by pharmacy practice research groups

Instating an eHealth observatory in order to document current and future eHealth initiatives and to support the common interests of HCPs in eHealth care. The observatory should include relevant stakeholders (community pharmacy, GP, policy makers, other HCPs)

Implementation projects demonstrating the role of the community pharmacist in the provision of eHealth should be conducted and supported

Action

7. Involve pharmacists in all national eHealth Action Plans

NATIONAL eHEALTH ACTION PLANS

Barriers

- Poor recognition of role of pharmacists by policy makers other prof bodies
- Competing interests / lack of strategy within fragmented profession
- Lack of action / advocacy / activity by professional bodies & pharmacists
- Lack of technical competence
- Ineffective lobbying
- Lack of interest and conservatism (pharmacists)
- Perceived bad image of pharmacists with politicians

Facilitators

- Demonstrate evidence of contribution by pharmacist
- Creation of an Observatory with annual reporting
- Changing the perception of the role of pharmacists
- Creation of a national ePharmacy strategy (for pharmacists, by national prof bodies of pharmacists) to root it into the general national eHealth strategy
- Implementation capacity
- Adequate lobbying by prof bodies / support from health authorities
- Legislation recognising role of eHealth in healthcare, by sharing best practices



PHARMACIST / PHARMACY eHEALTH INNOVATIONS

8

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RECOMMENDATION

Education on digital literacy

Use of business models

Innovation and service development

Action	Barriers	Facilitators
<p>8. Facilitate pharmacists' own eHealth solutions (to improve practice /optimise workflow/communication with patients and other HCPs)</p> <p>PHARMACIST/CY eHEALTH INNOVATIONS</p>	<ul style="list-style-type: none"> • Lack of knowledge & digital literacy, skills, time, energy, resources • Lack of business model • Indistinct roles within pharmacy • Lack of human resources / team to develop • Competition within profession • Lack of communication with other HCPs 	<ul style="list-style-type: none"> • Education on digital literacy, business models, innovation and service development • Making the first small step • Keep up to date with trends in market • Understand local health need / demands • Financing and funding • Raising competition • Building on existing systems, interoperable, user-friendly, affordable • Open co-operation with other partners • Integrate patient internet & digital tools for health / wellbeing and healthcare with pharmacists/cies



SELF-CARE

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RECOMMENDATION

Need for confronting and tackle the challenges such as unaccredited, biased, unreliable or inaccurate sources of online information, inaccurate claims and false advertising, including the trivialising of self-care/medication and absence of communication with pharmacist.

There is a great necessity to improve collaborating with patients, patients' organisations and patient movements using eHealth solutions.

There should be proactive engagement towards co-operation with other partners (including industry, developers and other healthcare professionals)

Pharmacist should be a part of actions and projects supporting their role as digital healthcare coach.

Action	Barriers	Facilitators
<p data-bbox="45 164 901 942">9. Evaluate & recommend the implementation of eHealth solutions for supporting the role of the pharmacist in facilitated self-medication and self-care</p> <p data-bbox="45 1078 420 1142">SELF-CARE</p>	<ul data-bbox="955 164 1668 842" style="list-style-type: none"><li data-bbox="955 164 1668 485">• Unaccredited, biased, unreliable or inaccurate sources of online information<li data-bbox="955 514 1668 664">• Inaccurate claims / false advertising<li data-bbox="955 692 1668 842">• Trivialising of self-care/medication	<ul data-bbox="1714 164 2494 1370" style="list-style-type: none"><li data-bbox="1714 164 2494 578">• Collaborating with patients / patients' organisations / patient movements using eHealth<li data-bbox="1714 606 2494 756">• Open co-operation with other partners<li data-bbox="1714 785 2494 1113">• Actions supporting pharmacist as digital healthcare coach / projects<li data-bbox="1714 1142 2494 1370">• Empower pharmacists in advising using online channels



GOVERNANCE

10

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RECOMMENDATION

Create a European Observatory of eHealth solutions which in collaboration with respective national representatives would be responsible for ongoing monitoring of eHealth initiatives

Explore possibility of certification of compliance (perhaps by observatory) on eHealth solutions

Active public discussion as well as engagement of HCPs and patients in creating new legislation regarding eHealth

Action	Barriers	Facilitators
<p>10. With the aim of protecting the patient, all activities should be in accordance with the relevant EU legislation (e.g. privacy, safety)</p> <p>GOVERNANCE</p>	<ul style="list-style-type: none">• Potential gaps in legislation in covering new eHealth solutions (which can cause a delay in new initiatives)• Lack of informing pharmacist privacy & safety	<ul style="list-style-type: none">• Creation of an Observatory of eHealth solutions• More public discussion / engagement of professionals and patients in creating new legislation

Guide

Open Access

SUPPORT Tools for Evidence-informed Policymaking in health 6: Using research evidence to address how an option will be implemented

Atle Fretheim*¹, Susan Munabi-Babigumira², Andrew D Oxman²,
John N Lavis³ and Simon Lewin⁴

Questions to consider

1. What are the potential barriers to the successful implementation of a new policy?



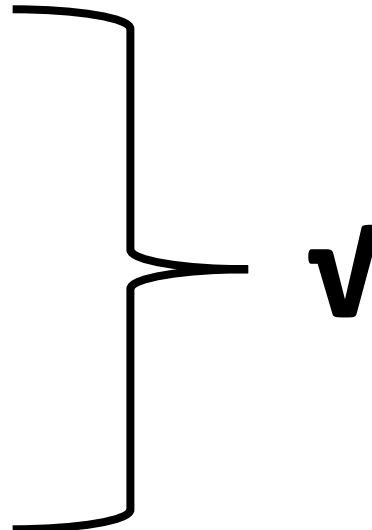
2. What strategies should be considered in planning the implementation of a new policy in order to facilitate the necessary behavioural changes among healthcare recipients and citizens?



3. What strategies should be considered in planning the implementation of a new policy in order to facilitate the necessary behavioural changes in healthcare professionals?

4. What strategies should be considered in planning the implementation of a new policy in order to facilitate the necessary organisational changes?

5. What strategies should be considered in planning the implementation of a new policy in order to facilitate the necessary systems changes?



We did this in one exercise rather than separately in:

- HCP/patient
- Organisational
- System

Recommendations on the implementation of eHealth supported intervention strategies in pharmacies to improve medication use

Barriers

- ~~• Lack of suitable algorithms to indicate inappropriate medication~~
- ~~• Lack of evidence~~

Facilitators

- ~~• Implement suitable algorithms~~
- ~~• Collection of evidence (real world), audit and evaluation~~
- ~~• Publish evidence / HTA, EBM, clinical guidelines and best practices~~

Next Steps

- We have identified 10 important areas of attention
- What are the next steps for this working group?
 - What do you think would be a useful outcome of this workshop?
 - A report with intro, policy background, recommendations and focus group barriers/facilitators as annex?

Report Structure

- Introduction to eHealth and Pharmaceutical Care
- Background
 - Policy, Practice and Research (*REF: PGEU Statement/Annex*)
- Recommendations
 - Records & Best Practice
 - Collaboration & Integration
 - End User Engagement
 - Advocacy
 - National eHealth Action Plans
 - Pharmacist/cy eHealth Innovations
 - Self-care
 - Governance
- Annex: Barriers/facilitators from focus group