

Health systems and the healthcare workforce

Skill-mix innovations in primary and chronic care and their implementation

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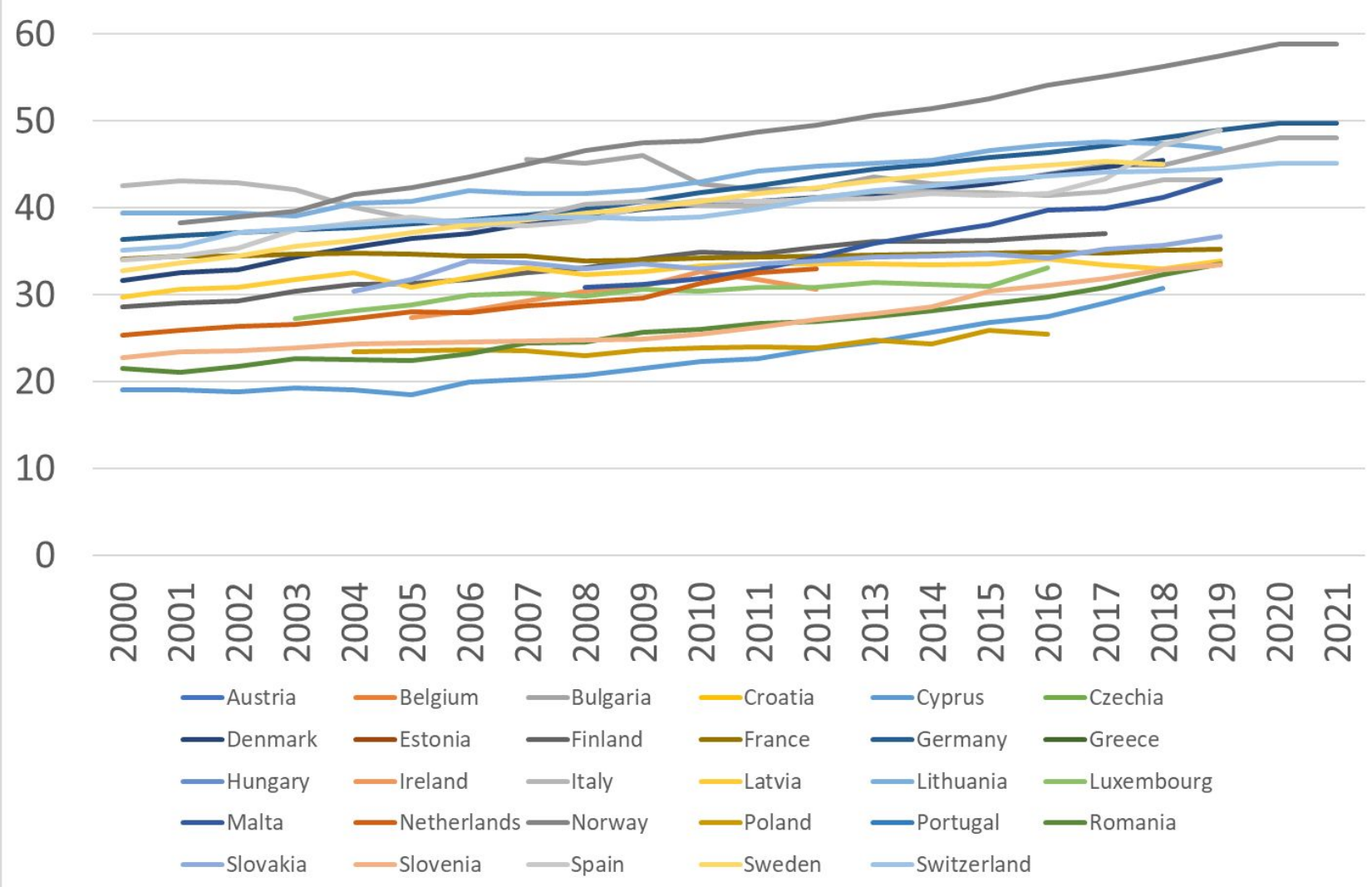
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European
Observatory 
on Health Systems and Policies
25 years a partnership hosted by WHO

The number of healthcare workers has constantly grown

Professionally active physicians, per 10 000 population

European Union, Norway and Switzerland 2000-2021



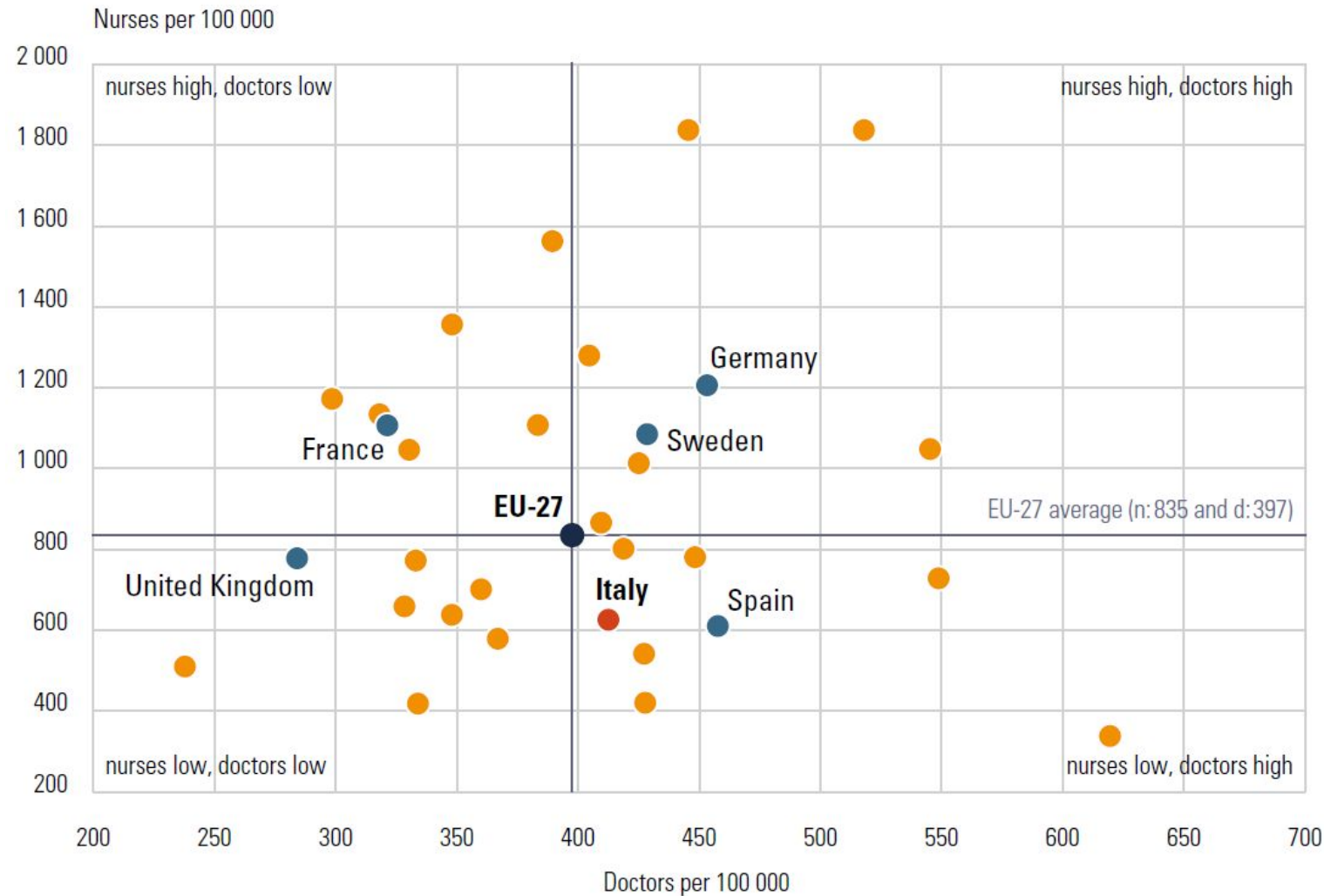
Health and care workforce in Europe: time to act



Large variations in the composition of the European healthcare workforce



FIG. 4.2 Practising nurses and physicians per 100 000 population, 2021





European Observatory on Health Systems and Policies

Skill-mix Innovation, Effectiveness and Implementation

Improving Primary and Chronic Care

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CAMBRIDGE



HEALTH SYSTEMS AND POLICY ANALYSIS

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How can skill-mix innovations support the implementation of integrated care for people with chronic conditions and multimorbidity?

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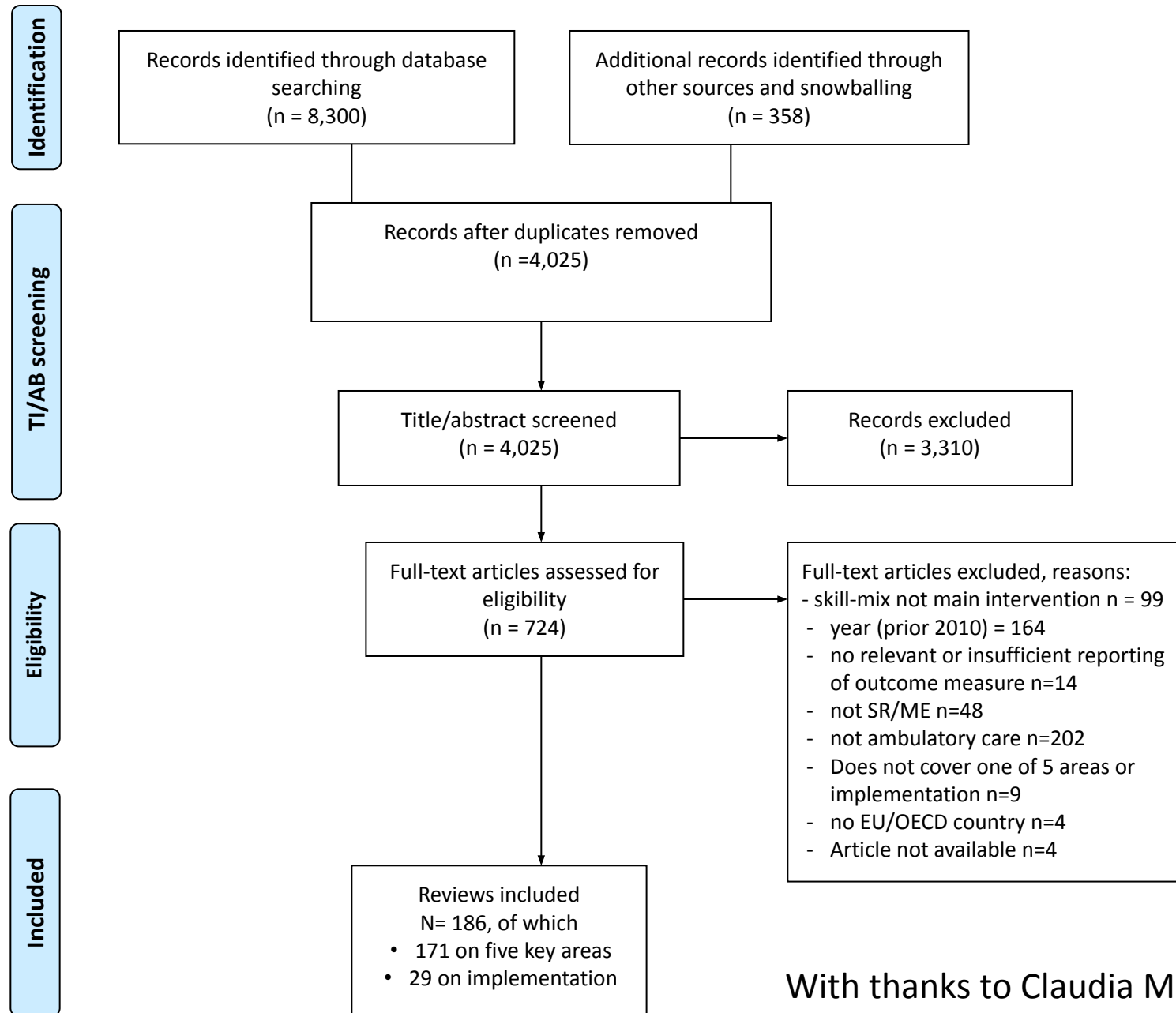
HEALTH SYSTEMS AND POLICY ANALYSIS

POLICY BRIEF 44

What are patient navigators and how can they improve integration of care?

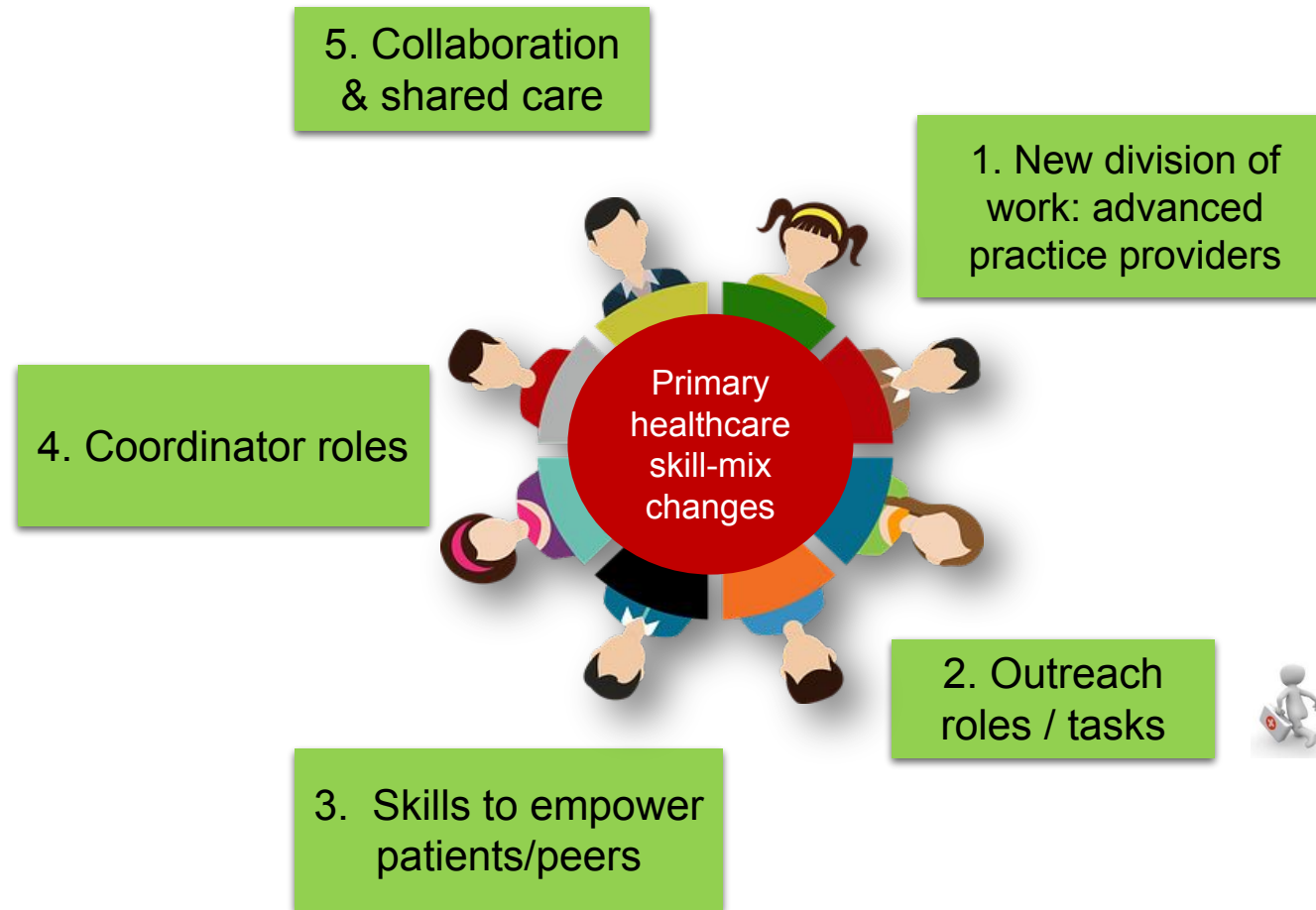
Hannah Budde
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Overview of reviews: search results



With thanks to Claudia Maier

Skill-mix innovations: main cross-cutting themes



What professions?

- Main providers of skill-mix innovation:
 - Nurses
 - Pharmacists
- Other professions: dietitians, physical therapists, CHWs/lay workers, other
- Physicians less often covered
- Multiprofessional teams (but composition often not clear)
- Various professions subsumed



Zooming in: skill-mix and health promotion and prevention



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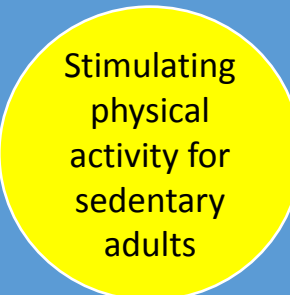



Skill-Mix Changes Targeting Health Promotion and Prevention Interventions and Effects on Outcomes in all Settings (Except Hospitals): Overview of Reviews

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What skill-mix changes for health promotion? Target groups: (school) children and healthy adults

 <p>Skill-mix aimed at improving diet and nutrition</p>	<p>By whom? (School) nurses, dietitians, health counsellors, PCP physicians (vs. UC) What tasks? dietary counselling, nutrition assessment, motivational interviews, referral to dietician/other</p>	<p>Countries? E.g. UK, US, IT, DK, AU, NZ, NL, FI</p>
 <p>Stimulating physical activity for sedentary adults</p>	<p>By whom? Exercise or physical activity specialists, nurses, physiotherapists, doctors (vs. UC) What tasks? advice or counselling, vouchers for or referrals to leisure centers, motivational interviews</p>	<p>Countries? E.g. UK, NZ, US, CH, NL, AU, CA</p>
 <p>Skill-mix to improve maternal & child health</p>	<p>By whom? Nurses, midwives, home visitor, CHWs, social workers (vs UC) What tasks? Home visits, case manager role, (multilingual) counselling, prevention of maltreatment, assessments</p>	<p>Countries? E.g. US, AU, CA, NZ, UK, IE, BR, IN, MX, TH, ZA, TR, BD, ET, VN, Nepal</p>

[1] Schroeder et al. (2016); [2] Bhattaria (2013), [3] Orrow et. al. (2012), [4] Kroll-Desrosiers et al. (2016); [5] Lewin et. al. (2010); [6] Abbott & Elliott (2017) [7] Issel et. Al. (2011); [8] Dalziel & Segal (2012)

Disease prevention: improving access to screenings

<p>Light blue circle: Patient navigators to increase screening for underserved populations</p>	<p>By whom? Trained lay-persons or health professionals (e.g. bilingual), working in team (vs UC) What tasks? Education on screenings, support, setting appointments, reminder calls</p>	<p>Countries? US, BD, CA</p>
<p>Yellow circle: Home visits (for disadvantaged groups)</p>	<p>By whom? CHWs, nurses, social workers, firefighters (vs UC) What tasks? Home visits conducted alone or as part of community secondary prevention to eliminate health disparities</p>	<p>Countries? US</p>
<p>Green circle: Nurse-delivered cancer screenings</p>	<p>By whom? Nurse practitioners, APN, specialised nurses (vs physicians) What tasks? Nurse-led endoscopy, nurse-led skin cancer, cervical cancer screenings</p>	<p>Countries? US, CA, UK</p>

[1] Schroeder et al. (2016); [2] Bhattaria (2013), [3] Orrow et. al. (2012), [4] Kroll-Desrosiers et al. (2016); [5] Lewin et. al. (2010); [6] Abbott & Elliott (2017) [7] Issel et. Al. (2011); [8] Dalziel & Segal (2012)

DIMENSIONS	OUTCOME (SOURCE)	COUNTRIES
Access	<ul style="list-style-type: none"> Reduced waiting times and improved appointment scheduling with specialists (Robinson-White et al., 2010; Bush, Kaufman & Shackelford, 2017) Earlier treatment and treatment initiation (Bush, Kaufman & Shackelford, 2017) Shorter time to diagnosis and appointments (Ranaghan et al., 2016) Increased screening uptake (Robinson-White et al., 2010; Glick et al., 2012; Genoff et al., 2016; Ali-Faisal et al., 2017; Roland et al., 2017; McBrien et al., 2018) 	<ul style="list-style-type: none"> CA, USA USA CA, KR, USA BD, CA, USA
Care coordination / continuity of care	<ul style="list-style-type: none"> Improved adherence to diagnostic follow-ups (Bush, Kaufman & Shackelford, 2017; McBrien et al., 2018) Improved referrals (Roland et al., 2017) Improved completion of screening and diagnostics (Glick et al., 2012; Roland et al., 2017) Improved referrals or disease management, and positive effects on communication with patients and caregivers (Manderson et al., 2012) 	<ul style="list-style-type: none"> CA, USA, ZA AU, CA, USA CA, FR, USA AU, CA, USA

DIMENSIONS	OUTCOME (SOURCE)	COUNTRIES
Effectiveness	<ul style="list-style-type: none"> Lower readmission rates (Manderson et al., 2012; Le Berre et al., 2017) Fewer emergency department visits (Le Berre et al., 2017) 	<ul style="list-style-type: none"> AT, AU, BE, CA, CH, CN, DE, DK, ES, FI, HK, IR, IT, JP, NL, NZ, SE, SI, UK, USA
Health outcomes	<ul style="list-style-type: none"> Reduced mortality rates (Le Berre et al., 2017; McBrien et al., 2018) Improved clinical outcomes (Manderson et al., 2012; McBrien et al., 2018; Desveaux et al., 2019) Improved quality of life (Manderson et al., 2012) 	<ul style="list-style-type: none"> AT, AU, BE, CA, CH, CN, DE, DK, ES, FI, HK, IR, IT, JP, NL, NZ, SE, SI, UK, USA, ZA CA, USA, ZA AU, CA, USA

What are patient navigators and how can they improve integration of care?

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Zooming in: skill-mix and patients with chronic conditions

What professions?

Multiprofessional collaboration?

Acknowledgement: With thanks to Juliane Winkelmann, Gemma Williams, Kate Polin, Laura Pfirter, Hannah Budde

Nurse-led or managed interventions – if adequately trained - generally provided equal or better care to physicians for patients with chronic conditions



Diabetes

1. Titration of medicines
2. Nurse practitioners
3. Nurse-led education

CVD

4. Nurse practitioners
5. Nurse-led cardiac clinics
6. Nurse-led education
7. Home care

Mental health

8. Case managers
9. Nurse-led education



Diabetes

All: HbA1c levels, SBP, DBP (1-3)

- ✓ 1. Medication adherence
- ✓ 2, 3. Feet at risk, total mortality
- Physical activity, diet, patient satisfaction

CVD

- ✓ 4, 5. BP and cholesterol control
- ✓ 5. Risk of major cardiac event
- 4. Patient satisfaction
- 7. All cause mortality, QoL

+/- 6. Medication adherence

Mental health

- ✓ 8. Depression symptoms
- ✓ 9. Self-management skills, Medication adherence



Diabetes

- ✓ 1. Inpatient costs
- +/- 1. Outpatient costs

- ✓ 2. Hospitalizations

CVD

- ✓ 4,5 Hospitalizations

Mental health

- ✓ 9. Use of crisis and emergency services



Diabetes, CVD

- 2, 4. job satisfaction
- +/-

- 2, 4. Inappropriate demands for team work
- +/-

Good evidence that pharmacist interventions can improve health outcomes



- Health screenings
- Immunizations
- Monitoring drug interactions, medication adherence
- Lifestyle and disease management education
- Therapeutic recommendations and guidance on prescribing to physicians



- **Diabetes:**
 - ✓ HbA1c levels
- **CVD**
 - ✓ SBP, DBP, QoL
- **Cancer**
 - ✓ Nausea and vomiting
 - ✓ BP control, QoL
 - ✓ Knowledge-attitude practice chemotherapy
- **Depression**
 - +/- Symptom change
- **All**
 - ✓ Medication adherence



- **Diabetes**
 - ✓ Dominant over usual care
- **CVD**
 - ✓ Emergency department visits and hospitalizations
 - ✓ Cost saving for anticoagulant services
- **Cancer**
 - ✓ Anti-emetic drug costs
 - ✓ Dominant over usual care



- **Diabetes**
 - ✓ Adherence to prescribing guidelines

Example:

Nurse prescribing increasing in Europe

- Since 2010, total of 8 countries newly adopted (2010-2019):

- Cyprus
- Estonia
- Finland
- Netherlands
- Poland
- Spain
- France
- Canton Vaud (Switzerland)

Prescribing rights:

- Limited: common chronic, minor acute conditions
- Exception: Netherlands for Nurse Specialists

- Nurse prescribing pre-existed:

- Australia
- Canada
- Ireland
- Norway
- New Zealand
- Sweden
- United Kingdom
- United States

Prescribing rights expanded:

- Full prescribing rights within specialty (AU, CA, IRE, NZ, UK (IP), US)
- Limited prescribing (NO, SE, UK (CP))

Implementation: Changes to Scopes-of-Practice: enabling policy and governance environment

- Up to date legislation (SoP laws):
 - Periodic reviews of laws and 2011 experimental law linked to nationwide evaluation (NL)
 - „Framework“ SoP laws instead of detailed SoP laws (New Zealand)
 - Minimum educational standards and protocols in non-regulated country contexts (UK)
- Integrated, multiprofessional workforce planning

Implementation: Role of payment policies and reimbursement rates

- Reimbursement as major determining factor
- Reimbursement (in FFS) and level of reimbursement:
 - **Australia:** 2010, NPs gained access to reimbursement scheme, reimbursement at lower levels than GPs
 - **U.S.:** state-dependent and payer-dependent, „incident-to-billing“
- Salaried positions: availability of funding
 - **Canada, Finland, Netherlands:** Challenge of securing new or redistributed money from existing health budgets
- Role of financial incentives:
 - **Estonia / Lithuania / Finland:** kick-start new roles (Finland), incentivise nationwide uptake of new roles (Estonia/Lithuania)

Implementation



- Clear **vision** and **mandate** for the reforms
- Early **involvement** of relevant stakeholders & leadership from MoH
- Right **timing**: define when to move from pilots to full implementation
- Right **skill-levels**: Step up education & training for new roles
- **Remove legal & financial barriers**: Review & update regulation (Scope-of-practice) and sufficient funding & payment schemes

European work facilitating skill-mix

- **BeWell: Blueprint alliance for a future health workforce strategy on digital and green skills**

- A project to promote the upskilling and reskilling of the European health workforce.
- Over the next four years (2022-2026) we will develop a green and digital skills strategy for the health ecosystem that can be implemented at a local, regional, national, and ultimately at the European level through the Pact for Skills.

- **JA HEROES: Joint Action on HEalth woRkfOrce to meet health challeNGes**

- to improve databases used in Health Workforce (HWF) planning;
- to develop effective tools and methods to carry out HWF planning;
- to define the best skill-mix needed by professionals to carry out HWF planning.

Duration: 36 months, 01/02/2023 – 31/01/2026; JA HEROES involves 19 countries