Digital Medicines



Nadia Bukhari, UCL School of Pharmacy, UK





N3 - The national broadband network that connects NHS organisations



The Background to... Building an integrated, paper-free health and care system 10 domains for delivery

Α	В	С	D	E
Patient engagement: Self-care and prevention	Urgent and emergency care	Transforming General Practice	Integrated care and social care	Digital medicines
Help patients to take control of their own health and care and reduce the pressure on frontline services.	Improve telephone and online triage and provide better technology to support clinicians so that treatment is better targeted.	Use technology to free GPs from time consuming administrative tasks and provide patients with online services.	Inform clinical decisions across all health and care settings and improve the experience of service users by enabling and enhancing the flow of patient information.	Give patients greater choice and added convenience by enabling them to choose where, when and how their medicines are delivered. Improve prescribing accuracy.
_				
F	G	н		J
Elective care	Paper free at the point of care	Data availability for outcomes for research and oversight	Infrastructure	Public trust and security
Improve referral management and provide a better treatment choice for patients by automating referrals across the NHS.	Equip the NHS with technology that will transform care and ensure the workforce has the skills to get the most out of it.	Improve the quality, availability and integrity of health data so that frontline staff, researchers and decision makers are better informed.	Enable information to move securely across all health and care settings by providing and maintaining robust and future-proofed national systems and networks.	Respect the data sharing preferences of patients and keep their data secure in all settings.





dm+d data model

dictionary of medicines + devices



Provides information for electronic reimbursement.

The numbers game.....

VTM	2,819
VMP	20,005
VMPP	30,265
AMP	128,992
AMPP	144,082
	316,632

dictionary of medicines + devices



- Stands for 'Global Standard'
- Unique identifier numbers used in bar-codes, RFID etc.
- Support supply-chain and healthcare
- Badged as 'Scan4Safety' for NHS deployment







Barcodes

9	5	0	 1	1 1(1	 53	∎)0	■ 0	3	

Barcode

Linear Barcode

EAN-13



2D Barcode

2D Data Matrix





Core Enablers for Barcoding

- Patient & Staff Identification (GSRN)
- Location Numbering (GLN)
- Catalogue Management (GTIN)





EVERGREEN, TREE PT 0803820 MR

MR 356129

Using technology and automation as an enabler: Linking ePrescribing to Robotics







Another example... EPMA-EDC-Robot link

- 11% reduction in ward drug spend
- 83% reduction in missed doses
- Reduced length of stay
- Frees up nursing 'time to care'
- Robust financial audit trail
- Return on Investment 3 years





SCAN SAFETY



SCAN4 SAFETY



Pharmacy Supply Chain and Secondary Uses Programme

Key Projects:

- Falsified Medicines Directive (FMD) Reduce the possibility of counterfeit medications entering the system and avoid the associated safety issues should any be prescribed
- 2. Supply chain/medicines optimisation Improve tracking and stock control of medicines in secondary care such that the supply will more efficiently meet demand
- **3. Secondary uses of prescribing data** Identify how medicines data can be safely collected and analysed to better inform strategy and policy
- 4. Single Identifier Enable each prescriber to be allocated a unique identifier allowing each prescription to be accurately attributed to an individual

The Pharmacy Projects at NHS Digital

Domain E – Digital Medicines

- Medication expenditure is currently £15.6 billion and rising by about 3.5% a year
- Each GP writes 375 prescriptions a week rising by 6% a year
- Approximately 50% of the population receives repeat prescriptions (repeats 80% of all prescriptions)
- Between 30% and 50% of repeat medicines are not taken as intended (World Health Organization 2003)
- The more medicines a patient takes the higher the risk of side-effects; the number of patients admitted to hospital with drug side effects is rising

What is Domain E?

- Minimise the use of paper in medicines management.
- Enhance information flows into and out of pharmacy.
- Energise the electronic management of medicines in secondary care.
- Safely, securely gather medicines data, analyse, conclude and inform the future.
- Provide patients with greater control of their medicines management.

Introduction to the Programme







EPS – continued service (Business As Usual).
EPS Release 2 (Phase 4) – fully electronic prescriptions for patients with and without a nominated pharmacy.
EPS Enhancements – will bring new upgrades to the current EPS with a view to making the service more robust and usable from an end user perspective.
EPS in other care settings – such as secondary care and community care.

Integrating Pharmacy across Care Settings Programme

Key Projects:

1. EPS Tracker in NHS 111

Access to EPS tracker in all NHS 111 locations; identifying status of prescription, streamlining the Urgent Repeat Meds process

2. Transfer of Information across Care Settings

- Secure Messaging

Structured and secure messaging. Initially between NHS 111, GP and Community Pharmacy before moving to an 'any to any' model

Activity Recording

Recording of clinical activity performed in community pharmacy.

Transfer of Care

Structured, safe and real-time transactions. 'Any to any' model

3. Summary Care Record

Continued implementation into Community Pharmacy. Read-write functionality to a shared care record

4. Pharmacy Integration

Integration of Community Pharmacy with Clinical Decision Support for NHS Pathways, Clinical Triage Platform etc

The Summary Care Record (SCR) in more detail

Information held on the SCR					
Core	Additional Information (currently being rolled out)				
 All known allergies & adverse reactions recorded for that patient on the GP system All medications within the following conditions: Acute medications (6 or 12 months depending on the GP system) Current repeat medications (with last issue date dependent upon GP system) 	 Reason for medication Immunisations Significant diagnoses / problems Significant procedures End of Life Care information and patient preferences Other anticipatory care preferences, when they have been recorded by the GP Any other important information from the GP record that the patient and GP agree should be included in the SCR 				
system adds this data, 6 months)	The following items are not included unless the patient specifically asks for them to be: DETAILS of fertility treatment, sexually transmitted infections and treatments, terminations, or gender reassignment.				



Current examples do we have of new technologies being used to improve service efficiency at scale within the NHS and what are the

- Electronic Prescription Service (EPS)
- e-Referral Service
- Summary Care Record
- NHS Spine
- NHS Mail



Challenges facing the NHS Digital Transformation Agenda

- Digital maturity of existing NHS locations
- Patient engagement maturity
- Patient expectations of services
- Workforce development
- Funding



Health Informatics is playing a huge part in transforming care and to achieve better patient outcomes; there is a Paperless 2020 date set

Thanks to Mo Murhaba, Advanced terminology specialist at NHS Digital NHS 111 pharmacist.

National Alliance for Women in Pharmacy A PPA Initiative





Gender Equality



- concerns both women and men
- strong impact on their daily lives.
- Seen as a "women's issue". as women act as driving force behind gender equality strategies and struggles.
- Are women alone ones benefited from facing equal societies?
 - men also benefit from gender equality
 - Male gender-specific issues including lower life expectancy, bad health, lower education levels and rigid gender norms. I
 - Both women and men should be aware of the benefits
 - Success comes from participation of both women and men.
- Therefore it is important to engage more men and to make men understand how gender equality is relevant for them as well

D	ELIVERED BY	WOMEN, EN:	
A GI	ENDER AND EQUI	TY ANALYSI	s +++++
· · · · · · · · · · · · · · ·	F THE GLOBAL HE	ALTH AND	· · · · · · · · · · · · · · · · · · ·
	SOCIAL WORKE	ORCE	1111111111
Hu	man Resources for Health Obse	erver Series No. 24	
	World Health Organization		WGH



SUMMARY



- Changing world has higher health needs
- 40 million new jobs by 2030 in the global health and social sector
- Sustainable Development Goals (SDGs) and universal health coverage identifies an estimated,
 - Shortfall of 18 million health workers primarily in LMICs
 - The global mismatch between health worker supply and demand
 - A cause for concern and a potential opportunity.
- Women account for 70% of the health and social care workforce,



SUMMARY



- More women needed to fil the gender gap
- Gaps in health worker supply will not be closed without addressing the gender dynamics of the health and social workforce.
- The female health and social care workers deliver the majority of care compromising their own well-being and livelihoods, it also constrains progress on gender equality and negatively impacts health systems and the delivery of quality care.

COMPARISON-MEN OR WOMEN

- In general, women deliver global health and men lead it.
- Progress on gender parity in leadership varies by country and sector, but generally men hold the majority of senior roles in health from global to community level.
- Global health is predominantly led by men: 69% of global health organizations are headed by men, and 80% of board chairs are men.
- Only 20% of global health organizations were found to have gender parity on their boards, and 25% had gender parity at se management level.
- Health systems will be stronger when the women who deliver have an equal say in the design of national health plans, polici and systems.

LED BY MEN: ENDER AND EQUITY ANALYSIS F THE GLOBAL HEALTH AND Horizontal and vertical occupational segregation by gender is a universal pattern in health, varies with context.

Driven by gender norms and stereotypes of jobs culturally labelled 'men's' or 'women's' work

Gender discrimination constrains women's leadership/seniority

Gender stereotypes constrain men eg entering nursing

Women in health typically clustered into lower status/lower paid jobs

Female majority professions given lower social value, status & pay

Women 70% global health workforce but hold only 25% senior roles Gender leadership gaps driven by stereotypes, discrimination, power imbalance, privilege

Women's disadvantage intersects with/multiplied by other identities eg race, class

Global health weakened by loss female talent, ideas, knowledge Women leaders often expand health agenda, strengthening health for all Gendered leadership gap in health is a barrier to reaching SDGs and UHC

LEADERSHIP

KEY FINDINGS

DECENT WORK: DISCRIMINATION SEXUAL HARASSMENT BIAS

OCCUPATIONAL SEGREGATION

Large % women in health workforce face bias and discrimination

Female health workers face burden sexual harassment causing harm, ill health, attrition, loss morale, stress

Many countries lack laws and social protection that are the foundation for gender equality at work

Male healthworkers more likely to be organised in trade unions than female

Frontline female healthworkers in conflict/emergencies/remote areas face violence, injury & death GENDER PAY GAP (GPG) GPG in health 26-26%, higher than average for other sectors Most of GPG in health is unexplained by observable factors eg education Occupational segregation, women in lower status/paid roles, drives GPG. Much of women's work health/social care unpaid and excluded in GPG data Equal pay laws and collective bargaining absent in many countries GPG leads to lifetime economic disadvantage for women Closing GPG essential to reaching SDGs



- Workplace gender biases, discrimination and inequities are systemic, and gender disparities are widening
- Women in global health are underpaid and often unpaid.
- Workplace violence and sexual harassment in the health and social sector are widespread and oft hidden
- Occupational segregation by gender is deep an universal

DELIVERED BY WOMEN, LED BY MEN: A GENDER AND EQUITY ANALYSIS OF THE GLOBAL HEALTH AND SOCIAL WORKFORCE

RECOMMENDATIONS

- It is time to change the narrative
- Gender-transformative policies should be adopted that challenge the underlying causes of gender inequities
- The focus of research in the global health and social workforce

should be shifted



Our Vision

To support, enable and recognise women pharmacists in the workplace and to provide a supportive environment and mentorship for the advancement of women leaders.

Our Objectives

- Contribute to debate within the profession and healthcare with a particular focus on women
- Address career and professional development issues
- Provide networking opportunities
- Examine women in healthcare issues
- Provide mentorship opportunities
- To liaise with global women in pharmacy

OUR OBJECTIVES

- Contribute to debate within the profession and healthcare with a particular focus on women
- Address career and professional development issues
- Provide networking opportunities
- Examine women in healthcare issues
- Provide mentorship opportunities
- To liaise with global women in pharmacy



FiP – Who are they?



- The International Pharmaceutical Federation (FIP) is the global body representing pharmacy and pharmaceutical sciences.
- 144 national organisations, academic institutional members and individual members, represent over four million pharmacists and pharmaceutical scientists around the world



GOALS

FORMATION

Workforce Development Goals Aligned to NAWP Objectives

- Launched on April 4th 2019 in Lahore
- Executive committee formed
- Watch this space 🙂

