London School of Hygiene & Tropical Medicine

Improving Health Worldwide



Innovations in teaching and learning

Friday 22nd June 2018 – morning session



Friday 22nd June – Morning Agenda



Time	Theme/title	Presenter				
09.30-09.35	Introduction	Chair: Hannah Babad				
09.35-10.00	Distance Learning developments - MSc Global Health Policy	Preslava Stoeva				
10.00-10.30	Creating a MOOC in Eye Health	Daksha Patel				
10.30-11.00	Break					
11.00-11.25	'Perspectivity Challenge' - a real life scenario simulation challenge for Public Health	Dalya Marks				
11.25-11.50	PBL (Problem based learning) from the module Applied Communicable Disease control	David Reid				
11.50-12.30	Round table: How are Schools of Public Health using innovative teaching and learning methods ASPHER DEANS' AND DIRECTORS' GOOD PRACTICE AWARD CEREMONY 2018	Facilitator: Martin McKee Kasia Czabanowska (GPA 2018 Ceremony)				

Distance Learning Developments

MSc Global Health Policy



Speaker: Preslava Stoeva

Distance Learning at LSHTM in figures



- 1998: first LSHTM distance learning programme launched MSc Infectious Diseases DL
- 6: DL Programmes Clinical Trials, Demography and Health, Epidemiology, Global Health Policy, Infectious Diseases, and Public Health
- o 3,000: DL students
- 100: number of countries that LSHTM staff come from
- 20,000: LSHTM alumni working in more than 180 countries worldwide

MSc Global Health Policy



- The context
 - Global Health a new, evolving, multi-disciplinary field
 - Growing number of Global Health-related programmes
 - Growing number of programmes by distance learning
- MSc Global Health Policy by distance learning launched in 2011
- Programme is based on part-time study 2-5 years
- Currently over 380 students and over 50 staff, more than 90 graduates
- Structure 4 core modules, 3 GHP-specific electives, and a set of selected cross-programme electives
- Programme development launching new GHP-specific elective modules, considering the intellectual coherence of the core modules, updating study materials, changing assessment strategy, layout of study materials, making better use of technology, etc.

Study Materials - Innovation and challenges



- Study materials in electronic format
- Move away from textbooks and hard-copy readers
- Lecture notes prepared by subject specialists
- Voiceover of lectures
- All study resources provided at the start of the academic year to cater to asynchronous learning
- Study materials updates
- Difficult to keep voiceovers current
- Updates become time and resource-intensive

Study Materials – Layout and Progress Checks



LSHTM Moodle	Library & Careers Services *	DL Staff & Students	London Staff & Students ~	🚷 📮 Preslava Stoeva 💹 🕶
			sion 6: Assessing health systems	
			sion introduces key concepts and practical methods used in assessing and comparing health system iddle- and low-income countries.	ems in
		Onli	ine Reading for Courses	
		6.1	Session aims, objectives and planning your study	
		6.21	Introduction	
		_	Activity 6.1: Reflection - why assess health systems?	
			Developing the field of health systems research	
		_	Activity 6.2: Reflection - measuring health system performance	
		6.41	Measuring health system performance	
		V	Activity 6.3: Reflection - critiquing the WHR 2000	
		6.5	The World Health Report 2000	
		V	Activity 6.4: comparing measures of performance	
		6.6	Selected approaches for health system assessment	
		F	Activity 6.5: different perspectives on assessment	
		6.7	Challenges in assessing health systems	
		6.81	Doing health system research	
		Inter	grating activity - instructions	
			ase read these first, then click below to write your blog	
		<u>I</u> Inte	grating activity 6	
		6.9	Summary	
		6.10	References	

Study Materials – Lecture notes



8.2 Introduction - defining UHC





Session 8: Universal Health Coverage

8.2.7 Global prevalence of UHC

Figure 8.2 shows that out of 194 countries in the analysis by Stuckler et al, which produced the five themes introduced earlier in this section, 75 had legislation that provided a mandate for UHC. Of these, a further 58 met access, quality and outcome criteria for UHC in the years 2006–2008. Gambia, Bolivia, Congo and Bhutan were eliminated because skilled birth attendance was below 90% of births. Other countries such as Algeria, Colombia, Ecuador, El Salvador, Jordan, the Dominican Republic, Brazil, Bosnia, Latvia, Moldova, Russia and Uruguay had less than 90% of their populations covered under a health plan. The United States, reached more than 90% insurance coverage after policies implemented in 2014 (see later discussion).

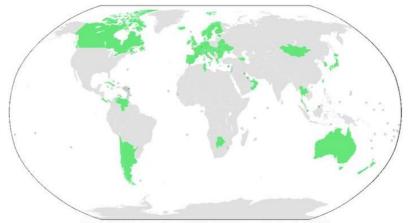
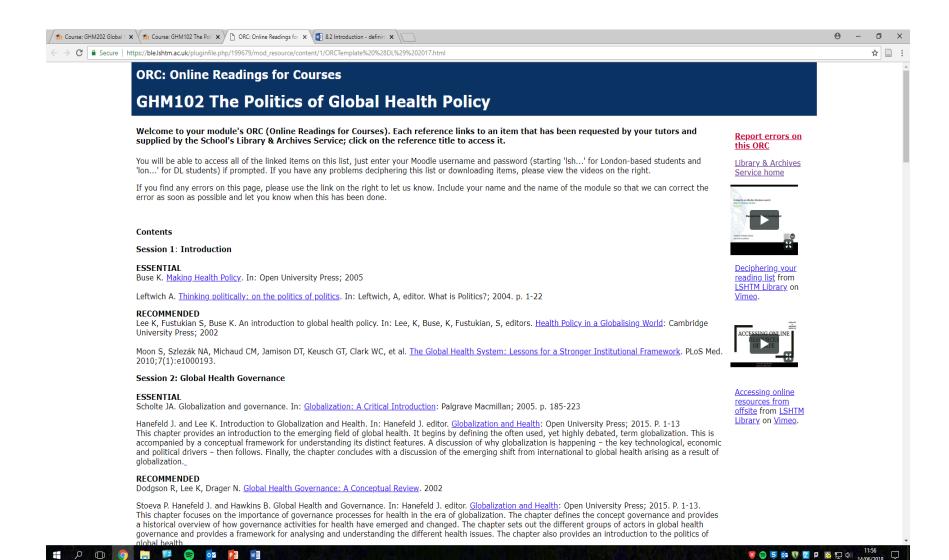


Figure 8.2 Global prevalence of UHC, 2009. Source: Stuckler et al. (2010)

Reading Lists Online





Engagement and Activities



- Convergence of DL and in-house teaching methods
 - Blended learning/mixed-mode study
 - Moving away from teacher-centred models of education
 - The 'flipped classroom' opens space for problem-solving and group work
- Study materials online promote more active engagement on discussion forums
- Activities embedded in the study materials require students to post responses on dedicated forums where they can comment on each other's insight and receive formative feedback from tutors
- Early engagement of students in the academic year stimulates learning and engagement

Learning and Assessment



- Learning is self-directed against a set list of objectives (check text)
- Formative feedback in forum discussions to support student learning
- Combination of formative and summative assignments
- Formative assignments core modules
- Summative assignments mostly used in elective modules, but also in some core modules
- Based on advances in pedagogical theory, the programme is piloting the use of varying assessment methods, alongside traditional essay-based assessment. Some examples of include:
 - Annotated bibliography
 - Policy brief
 - Policy report
 - o Professional editorial assignment

Conclusions



- Unique set of challenges student engagement, student motivation, providing guidance, maintaining dialogue – through distance and time, providing support with technology use, working with an extremely diverse group of students
- Unique set of opportunities working with an extremely diverse group of students – reaching well beyond the traditional audience, widening participation, providing continuing professional development, supporting individuals in changing careers, meeting students' changing education needs and expectations, catering for diverse learning preferences and styles, fostering rich discussions and knowledge exchange, creating communities of learning and support.
- DL the education format of the future?

Creating a MOOC in Eye Health Lessons learnt

Dr Daksha Patel 2018





Layout



- THE PROBLEM
- THE ACTION TAKEN
- SO WHAT DID WE LEARN?

OPHTHALMOLOGY

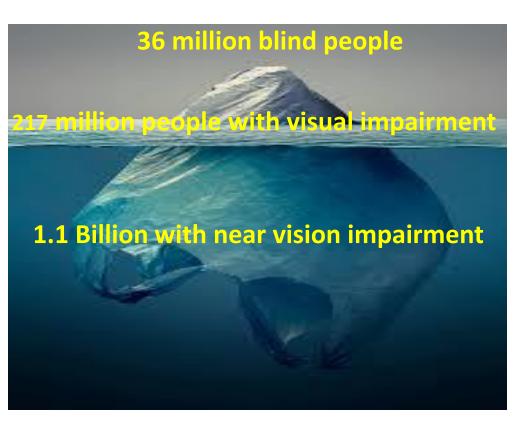




- > 2 WEEK ROTATION IN MEDICAL SCHOOL
- > EXPENSIVE EQUIPMENT DRIVEN
- > MICROSURGICAL SKILLS
- > SUB SPECIALITIES WITH THE EYE

Global challenge







Distribution of Visual loss



- 89% of visual impairment is in Low Middle Income Countries
- We know what is needed:
- Surgery
- Spectacles
- Strengthening eye health systems



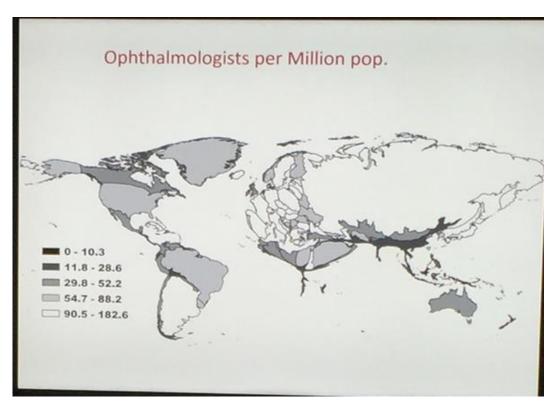
Cartogram 1 Prevalence of blindness by WHO region

Challenge: Lack of human resources



233,000 OPHTHALMOLOGIST POORLY DISTRIBUTED GLOBALLY

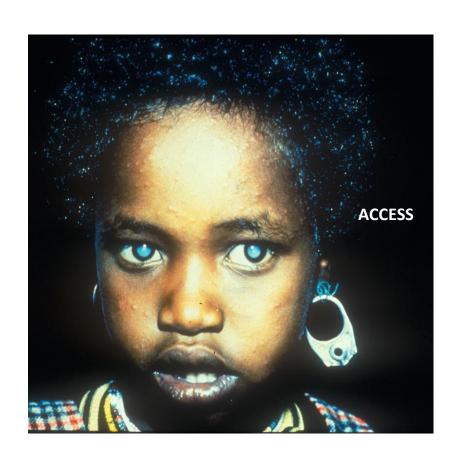
- LACK OF TRAINERS
- LACK OF TRAINING FACILITIES
- LACK OF RESOURCES



2018 - Serge Reshnikoff - new data on HReH

EYE HEALTH SYSTEMS STRENGTHENING







TEAM APPROACH



PUBLIC HEALTH CLINICAL SERVICES OPHTHALMOLO GISTS IMPROVE ACCESS AVAILABILITY OPTOMETRISTS QUALITY OF SERVICES EARLY DETECTION MANAGEMENT REFERRAL PATHWAYS **CLINICAL OFFICERS OPHTHALMIC NURSES, COMMUNITY EYE HEALTH**

PROVIDERS

PUBLIC HEALTH FOR EYE CARE



- ➤ MSc: 15- 20 STUDENTS A YEAR (over 30+ yrs)
- > 90% from LMIC
- Selection criteria (mostly ophthalmologists)
- Financial scholarships required
- Alumni lack resources to share their learning
- ➤ Todate LSHTM course is the only annual PHEC course globally (with a few partners)

ICEH & Open Education

 MSC in public health eye care.

Available resources and experience

5. Contribute to capacity building, strengthening public health approaches



3. Create a MOOCs/Open course content under a CC licence



4. Flexible, online, high quality practical resource:

Further sharing, re-use & adaptation of curriculum & materials by practitioners



International Centre for Eye Health

15 –20 students / year



Open Education is about **reducing barriers to participation** in education and learning :

e.g. Distance, costs, eligibility criteria, learning for the whole team



Massive open online courses - MOOCs



MOOC characteristics:

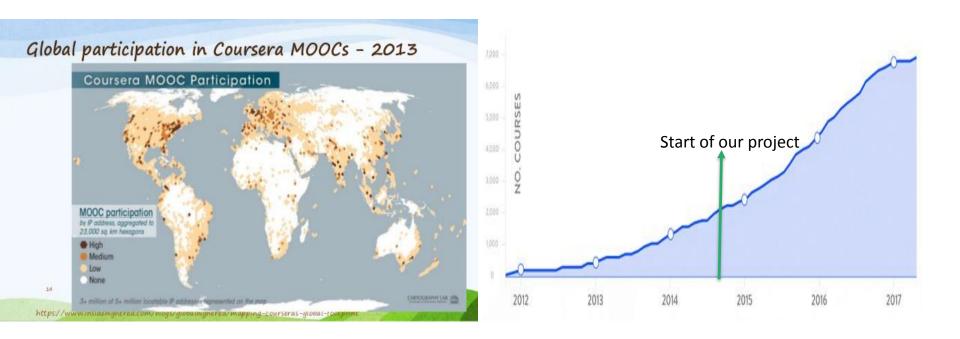
- M Massive participation: no restrictions to sign up
- O <u>Open content</u>, under a CC license, free to enroll
- O Online provide <u>flexible access</u>
- C built with a clear <u>pedagogical</u> process

Eye health needs:

- Participants from a wide background in eye health: Nurses, ophthalmic officers, optometrists, Ophthalmologist
- Content shared and locally adaptable for practice
- Online flexible and accessible in remote settings.
- Course built along the lines of established training in PHEC

MOOC Reach and development





Key concerns: Will we be able to reach the key audience in eye health In LMIC?

PILOT tested: 3 settings and 3 different eye health providers: Kenya, Botswana, Ghana (88 participants)



Changed attitude towards empowering patients

Developing a school screening programme

Materials could be adapted

Materials are useful

Now monitoring Cataract surgical rate



Categories

Courses

Programs

Degrees







FREE ONLINE COURSE

Global Blindness: Planning and Managing Eye Care Services

Understand global blindness and how to plan effective eye care with this free online course for health professionals



Go to course - started 27 Apr



Global Blindness MOOC





WEEK 1: THE BURDEN OF AVOIDABLE BLINDNESS

Introduction

An introduction to the 5 main course objectives and a chance to think about how you learn. There is also an opportunity to introduce yourself and meet fellow learners for the first time. Image © LSHTM



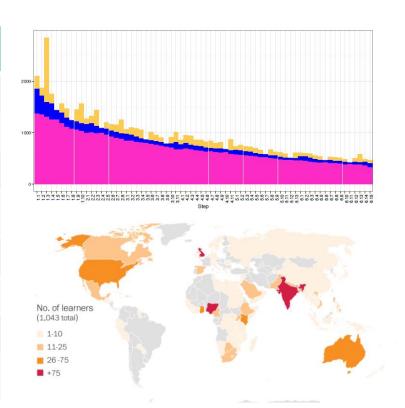
- 1.1 WELCOME TO THE COURSE AND WEEK 1 VIDEO (02:06)
- 1.2 LEARNING WITH US ARTICLE
- 1.3 INTRODUCE YOURSELF DISCUSSION

- Essentials of planning and management for eye care services
- Accessible, acceptable and applicable content for a variety of eye care contexts
- OER to enable further local educational adaptation
- Collaborative approach global experts in content development and mentoring

What happened? 1st Run



	Run 1 (Apr 15)
Joiners ⁴	3,544
Learners ⁴	2,183
Live in LMICs ¹	69%
Work in Health/social care ¹	81%
Completed ≥50% of course ³	744 (34%)
Completed ≥90% ³	444 (20%)
Certificates/upgrades sold	143 (7%)
Course rated as: "Excellent/Good" ²	96%



¹ Pre-course survey (n=1,107) ² Post course survey (n=214) ³ Datasets. All % shown are % of learners



"To me, the course played a very vital role as it **empowered me** with planning skills especially for Vision 2020 national and district planning [...] i have already **started using the information on my daily activities** as well as in planning." Ghana

"I have learned how to systematically analyze a complicated problem and address it. I have been involved in an outreach program in Honduras for the past 11 years, and I'm convinced that I can use what I've learned to try and make the program more effective."

Honduras

"The training was very valuable and cross sharing of vast experiences so enriching."

"In my case, the most valued have been the part of the indicators. And to share opinions with the other students."

"Good teaching materials to disseminate the knowledge to others to adopt". India

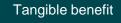
"I am thankful that my hospital will be going operational in the next few months. I can now use planning principles, doing a SWOT Analysis and setting SMART objectives to start planning the delivery and evaluation of outreach programme." Indonesia

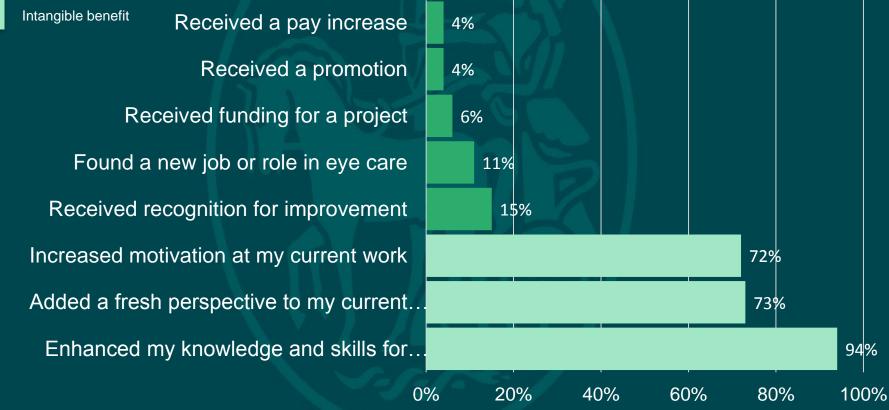
So what? Online survey after 1 year

94% working in eye care & 82% living in LMICs (n=139)



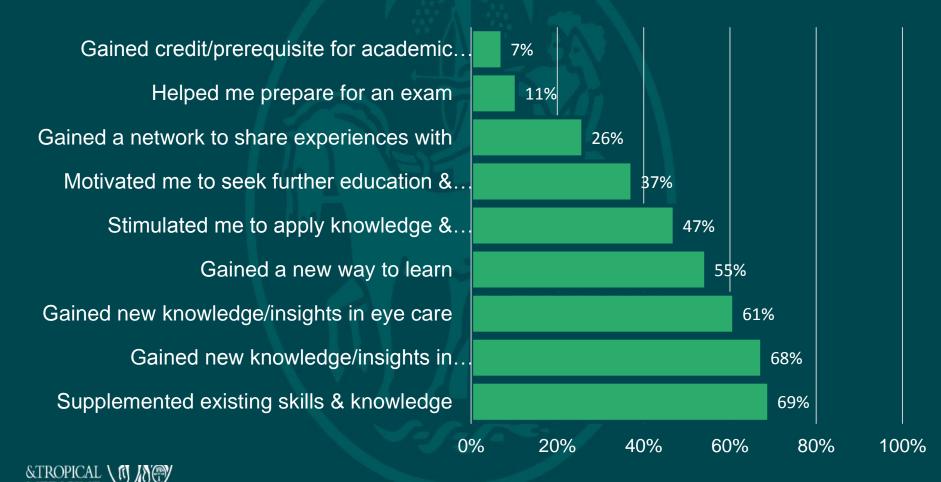
72% reported career benefit



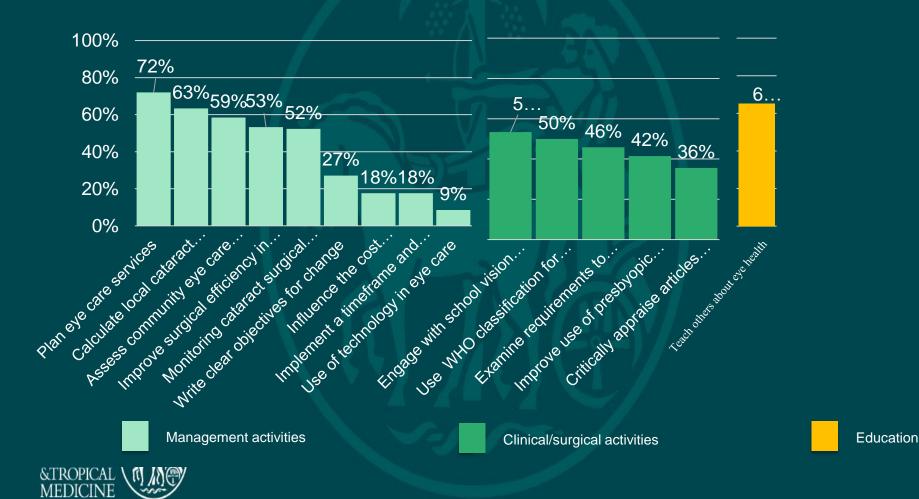




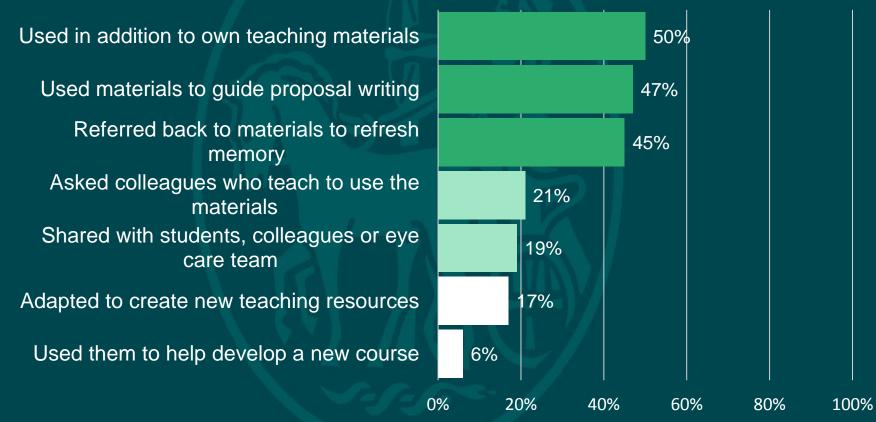
88% reported educational benefit



85% had applied their learning



70% reported re-use of materials





Summary: 1 year later survey



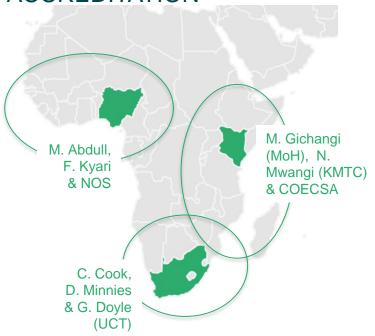
- The course widened participation in public health eye care education by reaching a range of eye health professionals across many countries, especially in LMICs
- Learning from Global Blindness was applicable at the local level
- OER content did support further teaching and learning at the local level

Study limitations

- Self-selecting respondents
- Unable to link respondents with the course data sets
- Questions listed potential pre-identified benefits for individuals



Localised partnerships/ ACCREDITATION



Health workers' activities & performance

Case study

Lila Puri Ophthalmologist, Nepal

I took the Global Blindness course (http://iceh.lshtm. ac.uk/oer/) while practising as an ophthalmologist in a high volume community eye hospital in Nepal.

Our programme was already delivering many of the public health activities covered by the course but is tall found it very useful for refreshing my knowledge on both the principles of public health for eye care and its application. The course was a great opportunity to hear from world experts in public health eye care – I felt as if I was in the class physically!

We were also able to share our experiences, ideas and strategies. For a short six-week course, the content was very comprehensive. I had new insights into planning and prioritising for sustainable, equitable and accessible services. This was very helpful for me as I have a decision-making position in my organisation.

Another great outcome of this course was that it motivated me to go on to formal study and apply to LSHTM where i am now studying for the Masters in Public Health Eye Care. My studies here have shown me even more how useful the Global Blindness course is as a resource for all eye care cadres.

Case study 2

Shalinder Sabherwal Ophthalmologist, India

I studied the Gobal Blindness free online course futtpd://ech.lathma.cu/kore/y while practising as an ophthalmologist in Delhi. I appreciated the flexible format which meant I could work and study at the same time. It was my first opportunity to learn about eye care planning and management. I was able to rapige with global experts which helped deepen my understanding of the key stosses. Learning toesther with other even care professionals from

offerent countries, cadres and local settings exposed me to many new experiences and ideas. The Global Blindware to many new experiences and ideas. The Global Blindware counters ingired me to think about how our fire nural outwards citatured programme could address some of the patient barriers we were seeing. Around 25% of the people who were offered suggery did not our that if the loopstal afterwards. From a survey with patients we identified that patients were afraid a paper quality sugred outcome and we were carrying out surgeries during harvest which means there was a lack of people to be coor them to hopptal.

We addressed these barriers through counselling patients and their relatives about surgical quality and we re-scheduled the timing of surgeries. Taking the Global Blindness course helped me reflect on and improve our eye care outreach programme.



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(Ramasamy & Gilbert, 2017)

LSHTM MSc PHEC



Educators & training institutions



The value creation framework (VCF)



Capturing "the learning enabled by community involvement and networking" (Wenger et al., 2011)

Indicators

	Cycle 1. Immediate value	Cycle 2. Potential value	Cycle 3. Applied value	Cycle 4. Realized value	Cycle 5. Reframing value			
Health worker of educate		Skills acquired Change in perspective Inspiration Confidence Types and intensity of social relationships	Implementation of advice/solutions Reuse of products	performance & reputation Knowledge products as performance	Community aspirations Assessment Relationships with stakeholders Institutional changes New frameworks			
Manage	Levels of		Use of tools & docs to inform practice Use of social					
Planner policyma	value of confidentions		connections New processes or policies					
Sponso	r Meta conversations about the network		Innovation in practice or systems Transferring learning practices					

Testing the VCF

Cycle 1.	Cycle 2.	Cycle 3.	Cycle 4.	Cycle 5.
Immediate value	Potential value	Applied value	Realized value	Reframing value
Levels of access to, participation in & quality of interactions in the GB course (A) "Access to quality CPD is limited and costly. This method allows study outside of the working day and without cost" (C) "Thank you to the participants, I always enjoy reading and learning from your experiences [], we are doing well in spite of all the mountains!" (A) Activity during the 3 course localisation projects (E)	"I have learnt that only seeing patients in my clinic will never overcome the burden of blindness." (A) "I was able to learn plan eye care at the district level and to budget." (C) I intend to pursue my interest in this subject by taking another online course, applying for an IPAB workshop, engaging with my national prevention of blindness committee (B, 55%) "I am sure I will refer back to much of this information in the future, and I will share a lot of it with my colleagues." (A)	"Global Blindness course has really help me a lot to run my Vision 2020 Program" (C) I am now using the content for teaching my team at the hospital (E) I have taught others about eye care (C, 54%) I have referred back to the course materials (C, 50%) I have shared the OER (C, 47%) "The course helped me to participate well in other futurelearn courses." (C) Outputs of the 3 course localisation projects (D) I applied to the MSc PHEC at LSHTM as a result of course (E)	"Increase in CSR in 3 remote districts in Kenya" (D) Received recognition for improvement (C, 15%)	" am writing a proposal that will enable us do screening of university students before start of next academic year." (C) Have engaged with school vision health programmes since the course (C, 53%) Now developing a new OER course (D)

Data sources: (A) Datasets from FL for run 1 (B) GB1 post course survey (C) 1 year later online survey (D) Stories shared by localising partners (E) Other informal stories shared with the LSHTM MOOC/OER team



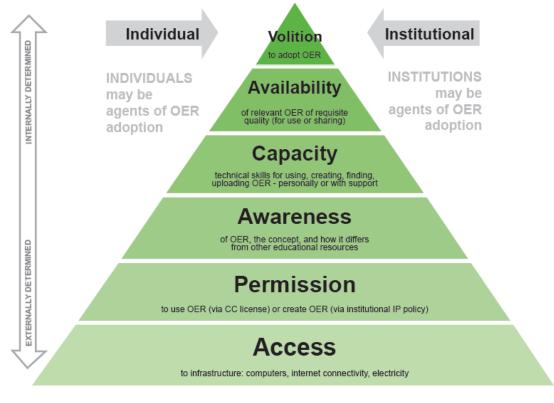
Identifying enablers and constraints



OER Adoption Pyramid Constraints and enablers affecting

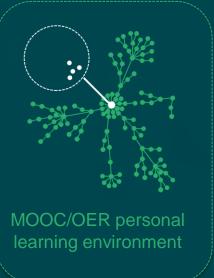
- Individual
- Cultural
- Structure (organisation, health system)

(Trotter & Cox, 2016), (Cox & Trotter, 2017)



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MOOC/OER & learning networks New opportunities MOOC/OER Alumni + Time Multiple languages French, Spanish and Portuguese



MOOCS in Eye health



Active

- Global blindness: planning and managing eye care services (multilingual)
- La Cécité dans le Monde: Planifier et Gérer les Services de Soins Oculaires **
- Eliminating trachoma in partnership with WHO
- Ophthalmic Epidemiology Basic principles
- Ophthalmic Epidemiology application to eye diseases

2018

- Diabetic eye diseases : strengthening services
- Retinopathy of prematurity: preventing blindness

2019

- Research skills for eye health
- Glaucoma –managing the silent blindness

In conclusion



- MOOCs in PHEC have provided is practical approach to reach a wide audience of users.
- MOOC success depends on its quality and relevance: spending time on the pedagogy and quality of the content, which allows for a wide base of users (language, images, Download and accessibility)
- MOOCs are expensive to create and work intensive
- MOOCs need a good / suitable platform option (e.g language specific)
- Tracking and managing analytics we need better tools to evaluate impact
- Sustainability
 – depends on certification models.













Find out more

https://ICEH.lshtm.ac.uk/oer

Contact details

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Perspectivity Challenge - a real life scenario simulation challenge for Public Health



Dr Dalya Marks Assistant Professor in PH / MSc PH Programme Director LSHTM



Outline of the talk



- Introducing the team
- Introducing the game
 - Rationale for development
 - Design objectives
 - Game essentials
 - Potential audiences
- Feedback
- Output & Evaluation



Introducing the team



Dalya Marks



Rachael Meikle



Herman van der Meyden



Perspectivity NL

- DM lectures in public health at LSHTM and has experience applying PH in local government/NHS settings.
- RM works in public health (for the last 15 years as a researcher in NGOs and a consultancy in New Zealand).
- H vd M works as a commercial advisor for Royal Dutch Shell and is co-founder of the Perspectivity Network. He developed the original Perspectivity Climate Game
- NL-based team. Suite of games available that draws out tensions in complexity & decision-making



Why did we develop the game?



I have a split academic/PH practice role so I am module organiser for Principles into Practice of PH

Revamped curriculum but struggled to meaningfully teach the 'softer' skills

- Communication
- Advocacy
- Influencing
- Negotiation









Attended climate game in Utrecht in 2014 – no idea what to expect

Lightbulb moment during debrief

Connection to PH tensions & complexity clear to me as was applicability of a PH version to their suite of challenges.





Design objectives



- That you need to collaborate with others to promote a healthy population, and working individually is not as effective
- That it is hard to foster investment in prevention prevention vs cure dichotomy
- 3. To appreciate using a real-time scenario the need to be flexible in **uncertain** landscapes, often with insufficient information & limited resource.
- 4. To understand the complexity of health systems in order to influence, plan
 & strategise effectively









Strategies / tensions / dilemmas



The challenge is designed to draw out a range of dilemmas

- Will you invest in wealth machines & generate more cash & profit?
- Will this equate with good quality of life at a population level?



 What will happen if you increase wealth, but don't consider how this affects health?

Hospital

 Will you plan & invest in research to find treatments in the event of a health disaster?



- Will you build sufficient hospitals to cure the sick?
- Will you invest in prevention to stop people getting sick in the first place?
- Will you collaborate or take an individualistic approach?
- Will you strive to win at all costs without concern for the other regions?



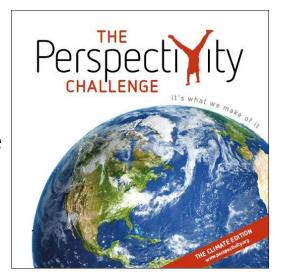


Development phase



Met with HvdM & enthusiastically relayed belief of relevance/ need for PH game

Pilot phase – started with adaptation of climate game Feedback that links to reality not believable Back to drawing board



New game piloted April 2015 & launched on election day May 2015

Ongoing reflection & tweaking – bedding in

Looking to develop new iterations





What is the PH Perspectivity Challenge?



The PH challenge encourages players to:

- Experience the dilemmas of solving complex problems, whilst planning for, and reaching agreement to support a healthy population.
- Experience realistic scenarios, and to work individually or collaboratively to improve public health.
- Face the struggle of balancing scarce resources while maximising health improvements
- Gain insight into own behaviour and that of others.

It puts players in the shoes of key policy makers in which the realities of complex decisions are brought to life.

Making the best decisions in a complex world is challenging.



Who can play?



ANYONE! Wide appeal by diverse audiences

Suitable for:

Conferences and continuing professional development
Team building & away days
Launch of new projects or steering groups
Under- and post-graduate teaching
High school learning



Ideal for:

Local, national and regional governments
Universities, colleges and schools
Healthcare providers and health insurance sector



Game Basics



Participants: The ideal number is 24 or multiples of 12,

but different numbers are possible

Duration: +/- 2.5 hours

Languages: English and Dutch

Requirements: Facilitator led. No specialist health

knowledge required

Game synopsis: Six public health regions compete in an inter-connected world to improve population health. Resources are limited and situations are constantly changing.

Disease outbreaks may occur and populations' needs may change.

What is your strategy? How does your neighbour's strategy affect your situation?









Game essentials



8 rounds – 6 competing regions must think about what strategy to follow & how to invest their money

Each round:

Bank open for 4 minutes so need to think & act quickly Choice of purchases affects population health

Pay cures depending on health of the population On roll of dice, get a disaster or a chance card. If there's

a health disaster must find the right treatment or lose OALYs

Make decisions about health spending & think about values (eg do we invest in hospitals to cure or invest in prevention to improve health level?)











Game debrief – to reflect & embed learning



- A debrief (~1 hour) follows game play(~1.5 hours)
- Allow players to think about game strategy, whether they were able to be heard, what the dynamic & influence was of louder or quieter players.
- 5-10 minutes free writing; reflect whether frustrated or constrained, whether they would have done anything differently & how this could be achieved.
- Talk about their observations (about themselves and others), what reactions it sparked, & what parallels it raised in daily decisions. Application to real life experience.
- Explore how we work in teams and how we can negotiate with, or influence others to adopt our ideas (underpinned by theory).

Expect to see a variety of behaviours displayed during the course of the challenge!



Output and player feedback



- ✓ The game has been played by MSc students, GP & PH trainees, professional and lay adults & high school pupils.
- ✓ Received very positive evaluation and players reported that it was a fun way of learning new things.
- ✓ It promotes raised voices; brings out perceptive insights & greater understanding of the challenges of working in a team, and frustrations & successes of influencing others.

"Stressful, dynamic, frustrating yet exhilarating."

"More people should play this game, it was eye opening!"

"Democracy is challenging!

Game was fun, decision making hard...

I really enjoyed the game.

It put into perspective some of the real life challenges: resources are scarce, people will get sick, what will you do?"

Recognition & output



- Shortlisted for the Director's Award for Education LSHTM
- Awarded funding for Public Engagement programme
- Poster accepted at Education Day conference, LSHTM
- Invited to deliver session at Executive Programme for Global Health (& invited back!)
- Secured ethics approval to evaluate with view to publish in peer-reviewed journals





Background

Reliance on epidemiological and statistical evidence-base arguably not enough in a political environment where "softer" skills such as advocacy, networking and communication is required.

The PH curriculum didn't offer innovative approaches to teaching the art & science of *doing* public health, a gap which this game addresses.

Aim

To understand how participation in an innovative PH learning tool can influence knowledge, skills development & subsequent practice of making decisions in a complex world.

Objectives

To explore players' views, attitudes & experiences of playing the PH Challenge, including notions of enjoyment, acceptability & usefulness;

To assess how players respond to being thrust into unfamiliar situations, & what problem solving skills they utilise;

To evaluate whether game playing can develop 'softer' skills, e.g. to effectively collaborate, communicate and influence.

Methods

Survey, interviews and/or focus groups, immediately following game play, at 6 months & 12 months.



Why play the Perspectivity Challenge?



- Offer an opportunity in a neutral environment to 'learn by doing'; Kolb's experiential learning theory underpins our approach
- Expose players to broader systems thinking and encourage new approaches to tackling complex situations
- Develop **new skills to support organisational transformation** and team building. Uncover team characteristics and strengths
- Inspire **thinking through a different lens** and provide frameworks to untangle complex situations into answerable questions
- Bring together diverse sectors and departments to work towards a common goal.









For more information



- www.Perspectivity.org
- Like us on Facebook.com/Perspectivity
- Talk with us on the LinkedIngroup
- Follow us on Twitter @perspectivity
- Mail to <u>game@perspectivity.org</u> or <u>dalya.marks@lshtm.ac.uk</u>







ANY QUESTIONS?

Problem Based Learning (PBL)





<u>David Reid</u>, Seminar Leader Pauline Paterson, Module Organiser

Aims of the module



- To explore the core knowledge and skills necessary for the application of communicable disease control activities in a variety of settings and populations.
- By the end of this module, students should be able to:
 - Differentiate key mechanisms of communicable disease transmission, and propose realistic public health prevention and control strategies;
 - Apply and evaluate principles of surveillance and characteristics of surveillance systems
 - Evaluate policies and programmes used in prevention and control of infectious diseases, and issues involved in implementation and evaluation;
 - Apply epidemiological methods to investigation and management of outbreaks;
 - Examine issues involved in managing and evaluating vaccination programmes;
 - Question appropriateness of standard communicable disease control strategies for vulnerable, marginalised, and at-risk populations, and to propose alternative strategies;
 - Evaluate communicable disease control strategies using ethical frameworks;
 - Design communicable disease control strategies suited to the student's own country or work situation.

What is this module <u>really</u> about?



- People
 - We can learn all the science and best practices available, but unless we learn how to relate these to individual realities, lives, hopes and fears, we will ultimately fail.



How do the students learn in this module?







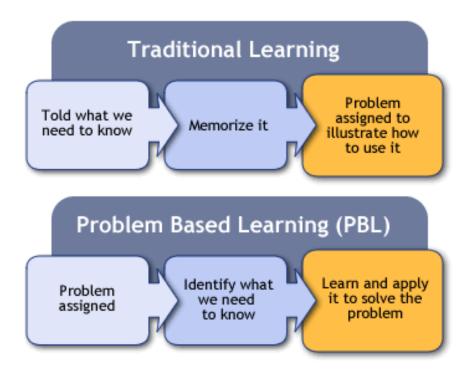


- Lectures on core concepts
- Realistic PBL scenario and own PBL research and sharing
- Reading (academic papers, technical reports)
- One expert interview
- Assessments group report and individual essay
- Group presentations based on PBL

Problem-based learning



 Developed in the 1960s and used extensively around the world for health education.





- Student centred in small groups.
- Tutor role to guide students towards discovering answers rather than providing them.
- Stimulate and encourage cognitive learning process, critical and problem solving skills with self-directed learning. (students schedule and direct their own learning and time).
- Learning by doing (Dewey)
- Method theory, practice, reflection and acting are interconnected.

Key roles



- Chair
- Note-taker
- Group members
- Facilitator



Benefits



- Exploration of varied resources available
- Active agents in their own learning (enthusiasm and by doing)
- Critical analysis of information
- Learning to work as a part of a team
- Making sense of limited or confusing information
- Learning how to teach
- Ability to apply learning
- Complementary and variety

Potential challenges



- Not covering core concepts
- Over-researching/Individuals disproportionate work
- Getting side-tracked
- Opportunity Cost
- Idealized PBL vs actual PBL
- Hypothesising with limited or wrong information.
- Transferability of scenario
- Effectiveness relies on Tutor
- Differing theoretical basis
- Lack of effectiveness research and mostly medical context

Learning outcomes of the PBL sessions



By the end of the 4 PBL sessions, students should be able to:

- Propose realistic public health prevention and control strategies;
- Question the appropriateness of standard communicable disease control strategies; for vulnerable, marginalised, and atrisk populations, and to propose alternative strategies;
- Identify information that is known and unknown, from the information presented;
- Share knowledge researched since the last session.

Learning outcomes of the PBL sessions



Students that are note-takers should be able to:

- Record points made by the group during the PBL session;
- Share notes taken during the session to ensure accurate recording;
- Write up notes and share with the group.

Students that chair a PBL session should be able to:

- Lead a small group through a PBL session, attending to group dynamics;
- Keep to time;
- Assign weekly research tasks to each member of the group.

PBL Process



- Students are part of an outbreak monitoring team
- Their task is to decide how to respond as a group based on the scenario at hand

Students:

- Identify what is known from the information presented;
- Identify what is unknown;
- Discuss learning gaps;
- Assign weekly research tasks to each member of the group;
- Re-group to share their findings at the start of the following week's PBL session.

This year's PBL scenario











- Meningitis B outbreak in London (international element)
- 14 confirmed cases
- Populations affected included university communities, men-who-have-sex-with-men (MSM), particularly those attending sex-on-premises venues (SoPVs), and a multiple-occupancy-household (MOH) of migrants.
- Email and oral updates and seminar based theatrics

PBL Session 1, Part A

Key information

24 October @ 19:00 - call from a hospital practitioner

It is 19:00 on 24 October when you receive a phone call from the on-duty infectious disease practitioner at the Central London Hospital. They are reporting the admission earlier today of a 24 year old male student (initials AB) who was brought in to the hospital's emergency room by two of his friends. The patient has deteriorated over the past few hours. The patient has recently returned from visiting his family in New York City, USA, three days ago, and his friends report that he complained of minor flu-like symptoms last night. During this morning his flu-like symptoms increased and his condition has deteriorated. He has a stiff neck, and cannot bend it forwards, as well as a fever and aching body. He has also noticed a purple rash on his body.

Since arriving on his flight back from NYC, and until last night (23 October), his friends report that he had no symptoms. They report that he had ascribed a bad headache to the late night party that they had hosted at their hall of residence the previous evening (22 October).

The consultant has given a diagnosis of probable meningococcal for AB. Further tests are being undertaken.

Questions

- What are the known facts?
- What are the unknown details?
- 3. Is this an outbreak?
- 4. What would your response be as a public health professional receiving this call?

Suggested timing = 40 minutes for introductions and group building & 40 minutes for this part of the scenario.



Teaching

- Scenario Development discussed and modified
- Scenario plausible but wide ranging: a range of elements ethical, procedures, guidelines, application of learning elsewhere and within the PBL, e.g.. media strategies, infection control, ethical issues, expert interviews.
- Some information integrated into lectures and emails between sessions.
- Tutor feedback, clarification, support, advice and integration in real time What's app.
- Between sessions through email debrief and discussion.
- Improvements made to subsequent year.
- Managing expectations for perfect knowledge.

Student feedback



"I enjoyed the practical's because they were so engaging and required a lot of critical, methodical thinking"

"PBL sessions were great! Very insightful and gave me practical experience in how to deal with an outbreak and all the challenges faced when trying to combat a spreading infectious disease. All members of the PBL group contributed to the sessions with specific knowledge from past experiences and anything we didn't know was split between group members of the team to research for the next session."

"The PBL model of teaching and scenario were really good and fun, and a great way to learn. I was apprehensive at first but I really enjoyed the group work, and looked forward to the weekly PBL sessions. A great module - my favourite!"



Thank you

Thanks also to Pauline Patterson, Rebecca Glover, Rebecca Meiksin, Jil Mamza, Adam Bourne, Will Nutland and Jenifer Richards who are involved with the development and implementation of the face to face ACDC problem based learning module, development and implementation.

Round table session 11.50-12.30



How are Schools of Public Health using innovative teaching and learning methods

Ramune Kalediene (Lithuanian University of Health Sciences, Kaunas, Lithuania)

Jascha de Nooijer (Maastricht University, The Netherlands)

Dominique Sprumont (Swiss School of Public Health+, Zurich, Switzerland)