

## 9DD POSTERS: Curriculum Strategies: Electives and Integration

Location: South Hall, Level 0, MiCo

### 9DD1 (18812)

#### Flexible selective time during the pre-clinical research years significantly increases academic productivity during medical school

Justin Peacock, Mayo Clinic, Mayo Medical School, Rochester, United States

**Presenter:** Joseph Grande\*, Mayo Clinic, Laboratory Medicine and Pathology, Rochester, United States

**Background:** In 2006, selectives were implemented at Mayo Medical School, which permitted students opportunity in the pre-clinical years to pursue research endeavors. The purpose of this study was to survey current and former Mayo medical students regarding the impact of selectives on their research interest and productivity.

**Summary of Work:** We created the survey about medical student research using the "Google Forms" software in accordance with an IRB-approved protocol. We surveyed 527 current and former Mayo Medical School students from the 2004-2017 graduating classes. We received responses from 183 participants (35% response rate). The survey results were analyzed using JMP statistical software. We grouped the classes into pre- (2004-2009) and post-selective (2010-2014) groups for the comparison studies.

**Summary of Results:** Post-selective students published significantly more papers (5.2 compared with 2.7,  $p=0.0005$ ) and gave significantly more presentations (5.6 compared with 2.6,  $p=0.0002$ ) during medical school than pre-selective students. 47% of the respondents indicated that selectives had a strong or very strong impact on their current research interest, while 42% reported a neutral impact. Respondents spent an average of  $3.3 \pm 0.3$  weeks of selective time on research, resulting in  $0.9 \pm 0.1$  publications and  $1.0 \pm 0.1$  presentations, which represented  $36.9 \pm 4.0\%$  and  $34.0 \pm 3.6\%$  of the students' total medical school publications and presentations, respectively.

**Discussion and Conclusions:** Flexible selective time during the pre-clinical years results in significantly more medical student academic productivity.

**Take-home messages:** Dedicated selective time has been used by students to increase academic productivity.

### 9DD2 (20737)

#### Peer-learning and peer-support to improve Student Selected Components

Elspeth Webb\*, Cardiff University, Child Health, Cardiff, United Kingdom

Rachel Brooks, Cardiff University, Child Health, Cardiff, United Kingdom

Chisako Okada, Cardiff University, Child Health, Cardiff, United Kingdom

**Background:** In accordance with "Tomorrow's Doctors", our syllabus includes Student Selected Components (SSCs). We present the development and use of peer-support and peer-learning within these.

**Summary of Work:** Subjects and setting: 22 medical students, studying their 3rd year SSC in the years 2011-13. There was a range of topics: autism; child poverty; intellectual disability; safeguarding; medical education; audiology: vulnerable groups. Two educational supervisors shared facilitation of group meetings (6-10 students) which met fortnightly. For each meeting students presented progress and problems. These were discussed with the facilitators enabling group participation and cooperative problem solving. Evaluation: We reviewed marks and other outcomes to assess the quality of the final SSCs. We sent out a questionnaire to all participating students, using Survey Monkey, between 5 months, and 2 years 5 months since completion of their SSC.

**Summary of Results:** Marks:- All passed, with 18 distinctions, and 10 scoring >80%.

Outcomes:- 6 papers were published; 4 others presented at scientific meetings. 3 also won prizes. Questionnaire results:- 13 of the 22 responded.

- Peer-learning:- 12/13 learned from other students (both general and specific SSC learning outcomes).
- Peer-support:- 9/13 received support; 10/13 supported others; 12/13 felt peer-support was important, and 7/13 more positive towards it after their SSC.

- Thematic analysis of free text answers will be presented related to peer-learning and peer-support.

**Discussion and Conclusions:** This was a successful model and enhanced the value of these attachments for student's learning and development.

**Take-home messages:** SSCs can be adapted to successfully incorporate peer-support and peer-learning.

**9DD3 (19942)****Using an Innovative Collaborative Platform to Recruit Students for International Medical Volunteering**

Faheem Ahmed, King's College London, School of Medicine, London, United Kingdom

Na'eem Ahmed, St George's Hospital, London, United Kingdom

**Mahfuj Ahmed\***, King's College London, London, United Kingdom

Raihaanah Al-Hoque, Selfless, London, United Kingdom  
Muslima Chowdhury, Selfless, London, United Kingdom

**Background:** Over the past decade, there has been a significant rise in electives undertaken in developing countries by students and doctors in the UK and US. Understanding the complexity of tropical disease and developing cross-cultural communication skills has become increasingly important in daily practice to meet the needs of diverse patients backgrounds. Handling challenging clinical duties in developing countries has also shown dramatic improvements to participants' clinical knowledge and emphasises the importance of learning how to manage patients with limited resources.

**Summary of Work:** Evidence suggests that almost all medical students in the developed world actively use a form of social media including facebook and twitter. Selfless UK, is an international charity that has developed an innovative online platform for students to volunteer on medical placements overseas. Students are able to create their own profile and select projects that particularly appeal to them, ranging from general medicine to ophthalmology. Our international projects help facilitate students' elective placements tailored to their needs. By using social media, we have been able to successfully engage and promote global health opportunities to a wider audience of students.

**Summary of Results:** Selfless has over 1,000 online members. Students have provided strong positive feedback for our programmes overseas, stating that the projects were 'easily accessible', serving as a 'highly efficient solution to arranging a tricky elective process' and enabled them 'to get hands on clinical experience'.

**Discussion and Conclusions:** Recognising the importance of social media, Selfless UK has used its unique volunteering platform to increase the number of international medical electives by providing greater opportunities to a wider audience.

**Take-home messages:** Social media is an effective tool in increasing medical volunteering opportunities in the developing world.

**9DD4 (21754)****How medical schools encourage students to take the first step as citizens of the world? The value of self-directed international medical elective preparation in Japanese medical students**

**Kazumi Sakashita\***, Gifu University, Medical Education Development Center, Gifu, Japan

Yasuyuki Suzuki, Gifu University, Medical Education Development Center, Gifu, Japan

Takuya Saiki, Gifu University, Medical Education Development Center, Gifu, Japan

Rintaro Imafuku, Gifu University, Medical Education Development Center, Gifu, Japan

**Background:** The number of Japanese medical students venturing abroad remains a minority. The previous national survey showed only 3% participated in international medical elective (IME). It is little known how Asian medical schools promote students' participation in IMEs. Gifu University offers students 4-8 weeks of self-directed IME opportunities. We aim at exploring their cognitive process and challenges during preparation.

**Summary of Work:** We conducted a qualitative study with 10 candidates for self-directed IMEs by semi-structured interview during pre-elective preparatory period. The preparatory process, personal goals and learning objectives were inquired. Thematic analyses were used for analysis.

**Summary of Results:** Students gained deeper self-reflection, enhanced problem-solving ability, more global view points, and less hesitation in intercultural communication, by completing each preparatory step in non-native language with different cultural perception. This led to their higher self-confidence. Positive peer influence and continuous educational support were two key components to maintain their motivation for self-directed IMEs.

**Discussion and Conclusions:** This survey indicated successive achievements during self-directed preparation could convey some personal development to students. Resulting self-confidence and motivation would result in successful participation in IMEs.

**Take-home messages:** Among medical students in non-English speaking countries, self-directed IMEs can be a useful model to facilitate their global experience as citizens of the world.

### 9DD5 (22015)

#### Interventions to prepare medical and nursing students for the ethical issues encountered on their electives: A systematic review

*Anika Rahim\**, King's College London, School of Medicine, London, United Kingdom  
*Paula Baraitser*, King's College London, Centre for Global Health, London, United Kingdom  
*Felicity Jones*, King's College London, School of Medicine, London, United Kingdom  
*Molly Fyfe*, King's College London, Department of Education, London, United Kingdom  
*Janagan Alagarajah*, King's College London, Centre for Global Health, London, United Kingdom

**Background:** International health electives (IHEs) pose significant ethical challenges for students travelling to low resource settings. We undertook a systematic review of the literature to identify: 1) ethical issues addressed in interventions to prepare students for ethical challenges 2) educational approaches; and, 3) ethical theories underpinning these approaches.

**Summary of Work:** We searched nine electronic databases of peer-reviewed literature and identified grey literature through key word search and expert consultation. Articles that described ethical training conducted by universities or professional bodies were included for thematic analysis.

**Summary of Results:** Our search for published literature retrieved 1478 hits; 22 articles met our selection criteria. The grey literature search returned 40 hits; 17 were selected. Once duplicates were removed, we retrieved six sources of published literature and six sources of grey literature for data extraction.

- 1) Interventions aimed to address a wide range of ethical issues – little evidence of consensus about the priorities for an ethical electives curriculum.
- 2) A wide range of educational approaches have been used with many encouraging interaction with case studies. A minority of interventions provide guidance on how to formulate responses to case studies.
- 3) Only five out of twelve interventions explicitly stated underpinning ethical theories.

**Discussion and Conclusions:** The ethical issues addressed, educational approaches used and ethical theories referenced are varied. The majority of interventions do not state their ethical theories referenced.

**Take-home messages:** Our review suggests the need for consensus on learning content and educational strategies to prepare students for electives. More explicit discussion is needed about the ethical theories required to develop appropriate training for IHEs.

### 9DD6 (22054)

#### Student-Selected Components: Approaches to Increasing the Consistency of Assessment

*Joanne Burke\**, University of Glasgow, Medical School, Glasgow, United Kingdom  
*Vivienne Crawford*, Queen's University Belfast, Medical School, Belfast, United Kingdom  
*Michelle Marshall*, University of Sheffield, Medical School, Sheffield, United Kingdom

**Background:** Student Selected Components (SSCs) are modules selected by students within the undergraduate medical curriculum in the UK. This complies with the GMC recommendation that 10% of curricular time be available for student choice. In Glasgow, Belfast and Sheffield, SSCs are delivered in blocks of dedicated time or are embedded with other teaching. The heterogeneous nature of SSC programmes means that they involves a large number of assessors from different backgrounds, a variety of different teaching modalities and a wide range of topics. Although programmes vary between Schools, the main purpose of SSCs is similar and includes development of skills in research, critical appraisal, problem solving and communication. One of the ongoing challenges is to produce a robust and valid assessment strategy which helps to ensure similar standards between SSC assessors and this is explored in this study.

**Summary of Work:** This study describes and compares the quality assurance approaches adopted by three different SSC programmes in the UK.

**Summary of Results:** These approaches include the use of clear assessment criteria, double marking/moderation, aligning assessment to the learning objectives and assessors training programme. In addition, providing feedback to assessors about their own students' scores in comparison to their peer group is included.

**Discussion and Conclusions:** A number of strategies are used to enhance the consistency of assessment and have support from existing literature. Careful consideration should be given to local needs before identifying the best approach to implement.

**Take-home messages:** A number of strategies are used to enhance the consistency of assessment and have support from existing literature. Careful consideration should be given to local needs before identifying the best approach to implement.

## 9DD7 (22966)

**Teaching dyads: The power of linking basic scientists and clinicians**

*Majka Woods\**, University of Minnesota Medical School, Office of Medical Education, Minneapolis, United States  
*Jeffrey Chipman*, University of Minnesota Medical School, Office of Medical Education, Minneapolis, United States

**Background:** Improving curriculum is an ongoing effort at many schools. In order to keep up with the fast passed changes in both the basic science and clinical fields and to provide students with the best teaching and learning experiences faculty need to understand how to work together.

**Summary of Work:** Course directors (basic scientists and clinicians) were intentionally paired with an academic counterpart. The dyad's were formed to provide feedback and information on the content being delivered from another perspective; both bringing in addition basic science information and more clinically relevant content. Each pairing resulted in improved content, new cross discipline contacts and a better understanding of how integrated the two areas need to be in order to provide the most efficient and effective educational experience.

**Summary of Results:** In the first two years of undergraduate medical school curriculum more than half of the courses now have a basic science and clinical dyad team to help inform and improve the curriculum. Content continues to be improved and given more clinical context. This model is being extended into the clinical education years in academic year 2014-2015.

**Discussion and Conclusions:** The use of an overt dyad model has improved conversations between the basic scientists, created a stronger clinical orientation in the basic science years and we hope will create a model of continuous discovery in the clinical years.

**Take-home messages:** The use of basic science and clinical dyads in both the basic science education curriculum and the clinical education curriculum is critical in creating an environment that fosters clinical curiosity backed with scientific understanding.

## 9DD8 (19233)

**A teaching scheme re-establishing basic science during clinical years helps to bridge the divide between pre-clinical and clinical training and boosts clinical confidence**

*Fritz-Patrick Jahns\**, King's College Hospital, London, United Kingdom  
*Zoe Rutter-Locher*, King's College Hospital, London, United Kingdom  
*Adam Pennycuick*, King's College Hospital, London, United Kingdom  
*Benjamin Gastra*, King's College Hospital, London, United Kingdom  
*Catherine Howard*, King's College Hospital, London, United Kingdom  
*Zanna Voysey*, King's College Hospital, London, United Kingdom

**Background:** The disjunction between pre-clinical basic science training and clinical training remains a key issue facing medical curriculums. Recent studies have explored the benefits of bridging this divide by incorporating clinical material into pre-clinical training years. Few, however, have addressed this issue from the opposite direction. The authors therefore assess the efficacy of a teaching scheme that re-establishes basic science during clinical training years.

**Summary of Work:** 102 clinical medical students attended a series of evening seminars in Neurology, Hepatology, Nephrology and Respiratory Medicine. Seminars provided a refresher on pre-clinical basic science relevant to the specialty, putting this information back into clinical context through patient cases. The scheme was evaluated both objectively, through pre- and post-session multiple-choice test, and subjectively, through 5-point Likert scales assessing students' confidence and attitudes towards session usefulness.

**Summary of Results:** Prior to the course, students from universities with greater chronological segregation between basic and clinical science expressed significantly lower confidence in basic science knowledge ( $p=0.01$ ). The teaching scheme effected a significant improvement in test scores ( $p<0.0001$ ) and confidence in both pre-clinical ( $p<0.0001$ ) and clinical science ( $p<0.0001$ ) in each specialty. Students consistently rated the seminars as very useful (mean Likert score 4.7/5). Results did not vary significantly between students in the first or last year of clinical training, nor with intercalation.

**Discussion and Conclusions:** A teaching scheme re-establishing basic science during clinical years helps to bridge the divide between pre-clinical and clinical training and boosts clinical confidence.

**Take-home messages:** This programme is of particular benefit to universities with curriculums reflecting greater chronological segregation of basic and clinical science.

## 9DD9 (22219)

**Role Model and Work Place Experiences in the First Year Medical Students at Faculty of Medicine, Srinakharinwirot University**

*Woraphon Aramrussamekul\**, Faculty of Medicine, Srinakharinwirot University, Physical Medicine and Rehabilitation, Nakhon Nayok, Thailand  
*Nantana Choomchuay*, Faculty of Medicine, Srinakharinwirot University, Pathology, Nakhon Nayok, Thailand

*Warataporn Sithicharoon*, Faculty of Medicine, Srinakharinwirot University, Forensic medicine, Nakhon Nayok, Thailand

*Watchareewan Thongsaard*, Faculty of Medicine, Srinakharinwirot University, Physiology, Bangkok, Thailand

*Chote Werawong*, Faculty of Medicine, Srinakharinwirot University, Physiology, Bangkok, Thailand

**Background:** The first year medical students at Faculty of Medicine, Srinakharinwirot University always learn basic science without work place experience. In a new course of Road to Medical Professionalism, we developed new learning strategies by adding experiences with role models and real patients. Student perception driving by each learning activities were evaluated at the end of the course.

**Summary of Work:** All topics of the course were conveyed by three major learning activities; traditional lecture, role model and work place experiences.

Survey questionnaires were distributed to 184 of 1st year medical students. Descriptive analysis was performed to compare the mean scores of each item.

**Summary of Results:** One hundred and twenty five (67.93%) questionnaires were obtained. Among respondents, male were 50.4% and female were 49.6%. Mean score's perception of all participants in traditional lecture, role model and work place experiences were 4.23, 4.34, and 4.26 respectively. Mean score's perception in high-scored student group (get A grade) were highest in Role model experience (4.59) and lowest in traditional lecture (4.47). Among low scored group, the highest mean score was in traditional lecture (4.04) while the lowest mean score was in role model (3.87).

**Discussion and Conclusions:** All learning strategies had similar results of students' perception in the whole class. The high score students more concern about role model and work place experiences, while the low score group pay more attention in traditional lecture.

**Take-home messages:** Role model and work place experiences should be promoted in 1st year medical students.

## 9DD10 (22247)

**An exploration of student views and expectations about a new integrated pharmacy programme for Ireland**

*Judith Strawbridge\**, Royal College of Surgeons in Ireland, School of Pharmacy, Dublin, Ireland  
*Mark Philbin*, Dublin City University, School of Nursing and Human Studies, Dublin, Ireland  
*Paul Gallagher*, Royal College of Surgeons in Ireland, School of Pharmacy, Dublin, Ireland

**Background:** Internationally educators are reflecting on the challenges of designing integrated curricula for healthcare professionals. The Pharmaceutical Society of Ireland commissioned a review of education of pharmacists in Ireland. This research, supported by international trends, led to the recommendation for a 5 year fully integrated pharmacy programme for Ireland. This study was conducted to understand students' needs to fully inform the design of the new integrated pharmacy programme nationally. The study was designed to determine students' expectations of an integrated programme and their perception of the merits, value and challenges of studying pharmacy through an integrated programme.

**Summary of Work:** Qualitative methodology was used to explore students' opinions. Nine focus groups were conducted; three in each of the three institutions delivering pharmacy programmes in Ireland. The student representative on the National Forum was also interviewed.

**Summary of Results:** The study showed that students recognised that the role of the pharmacist is changing and felt that an integrated programme would provide better context for learning and preparedness for practice. Students had an expectation that experiential learning would be provided in all sectors in an equitable and transparent manner. There was strong support for optional subjects, placements overseas and interprofessional education. Students identified that fiscal constraints were a potential barrier and might impact on the attractiveness of the degree.

**Discussion and Conclusions:** This study is informing the development of the integrated pharmacy programme in Ireland, and will be of interest to those involved in curriculum design further afield.

**Take-home messages:** Exploring student views and expectations is an important aspect of student-centred curriculum design.

## 9DD11 (20223)

**Innovation for the integration of knowledge in medicine students of the UNAM, Mexico**

*Jose Luis Jimenez Corona\**, Universidad Nacional Autónoma de México, School of Medicine, Surgery Department, Mexico

*Jesus Tapia Jurado*, Universidad Nacional Autónoma de México, School of Medicine, Surgery, Mexico

*Fernando Villegas Alvarez*, Universidad Nacional Autónoma de México, School of Medicine, Surgery, Mexico

*Gregoria Rodriguez Varela*, Universidad Nacional Autónoma de México, School of Medicine, Surgery, Mexico

*Isabel María Ferrandiz Vindel*, Universidad de Castilla La Mancha, School of Humanities and Education, Pedagogy, Cuenca, Spain

*Gabriela Millan Rosas*, Universidad Nacional Autónoma de México, School of Medicine, Sleep Clinic, Mexico

**Background:** One of the objectives of the curricula in medicine is that doctors acquire knowledge, abilities and skills to be competent (Sabench et al., 2013). The mission of the Surgery Department of the UNAM is to integrate theory with practice. To this end, we carried out the implementation and assessment of the practical abilities of students in the second year of medicine school registered in the course "Introduction to Surgery".

**Summary of Work:** A manual of practices was created for said course, which contains 20 practices, divided in three phases, related to the theoretical contents of the subject area. In order to evaluate the performance of the students in different abilities and skills, three mandatory practical exams were designed, for which, we used simulators, checklists, and the evaluators were standardized.

**Summary of Results:** 3460 students were evaluated in three practical departmental exams; the average of students who approved was 82.2% with a greater percentage of approved in the third exam (90.85%).

**Discussion and Conclusions:** At the moment, we are in the phase of implementation and analysis of the students' performance in diverse abilities and skills. In the opinion of the professors and a sample of students, the implementation of the manual of practices and the evaluation of said practices is considered suitable to facilitate learning of basic medical-surgical maneuvers for the medicine student, and it also contributes to the integration of the theoretical-practical contents of the subject area.

**Take-home messages:** We recommended the design of theoretical-practical courses which promote the integration of knowledge.

## 9DD12 (21409)

**Curriculum design: From longitudinal clerkships to block clerkships and back to longitudinal integrated curriculum**

*Valentin Muntean\**, Faculty of Medicine, UMF "Iuliu Hatieganu" Cluj-Napoca, Surgery, Cluj-Napoca, Romania  
*Soimita Suci*, Faculty of Medicine, UMF "Iuliu Hatieganu" Cluj-Napoca, Functional Sciences, Cluj-Napoca, Romania

*Carmen Miha*, Faculty of Medicine, UMF "Iuliu Hatieganu" Cluj-Napoca, Morphological Sciences, Cluj-Napoca, Romania

*Sorin Man*, Faculty of Medicine, UMF "Iuliu Hatieganu" Cluj-Napoca, Mother and Child, Cluj-Napoca, Romania

*Daniel Muresan*, Faculty of Medicine, UMF "Iuliu Hatieganu" Cluj-Napoca, Mother and Child, Cluj-Napoca, Romania

*Anca Dana Buzoianu*, Faculty of Medicine, UMF "Iuliu Hatieganu" Cluj-Napoca, Functional Sciences, Cluj-Napoca, Romania

**Background:** Research over the last decade has shown the educational advantages of Longitudinal Integrated Curriculum (LIC), with some authors considering continuity as a new organizing principle for medical education.

**Summary of Work:** In the nineties, adopting the curricular model of Western medical schools, at our institution we moved from longitudinal clerkships to rotational block clerkships. The recent major changes in health care delivery, the short inpatient stay and the pressure for faculty members and residents to maximize patient visits and procedures, diminished the learning opportunities for early-stage trainees and increased the degree of dissatisfaction among students and teachers. During the last two years we moved back to a longitudinal competency-based curriculum, with horizontal and vertical integration, that emphasizes patient-centered and student-driven learning. In each of the three clinical years there are five clerkships running at the same time, four compulsory and one optional.

**Summary of Results:** The main longitudinal themes of the curriculum are the basic sciences, clinical skills and clinical presentations / examination objectives. Students work with a preceptor in each discipline and a stable peer cohort across the year. The structure of the curriculum is provided by study guides, personal learning plans, learning portfolios, mentoring and peer review.

**Discussion and Conclusions:** The LIC model for curriculum increases the relationships of students with supervising clinical teachers and the ability to follow the patients from diagnosis through treatment, from inpatient to outpatient.

**Take-home messages:** LIC may represent a strategy for restoring some of the historical learning conditions in both inpatient and clinic-based services.

## 9DD13 (21454)

**Button-mediated medical education: Distributed learning in a digital age**

*Anna MacLeod\**, Dalhousie University, Division of Medical Education, Halifax, Canada

*Olga Kits*, Dalhousie University, Division of Medical Education, Halifax, Canada

*Cathy Fournier*, Dalhousie University, Division of Medical Education, Halifax, Canada

**Background:** The distributed delivery of medical education is becoming increasingly common in Canada and around the world. We are therefore conducting a large-scale ethnographic study exploring how distributed medical education is experienced by educators and students at a Canadian medical school.

**Summary of Work:** Our study includes textual analysis, observation and interviews. Following preliminary analysis of more than 50 hours of observation data, we have identified one small, but powerful, piece of technology that has an important influence on the practice of distributed education: 'the button.'

**Summary of Results:** In distributed medical education, curriculum is simultaneously delivered to various sites using state of the art videoconferencing. This means teaching and learning are extensively mediated by buttons. For example, in order to be heard and seen by colleagues at distributed sites, students press a button, activating an individual camera and microphone. The lecturer responds to questions by pressing yet another button. Potential speakers are placed in a queue based upon the order in which the button was pushed rather than relevance to the conversation. This button-mediated ordering of questions influences the flow of communication and the ability to engage in authentic discussion or debate.

**Discussion and Conclusions:** 'The button' has a significant influence on distributed medical education and constitutes a challenge to traditional educational epistemologies. Educators are required to rethink taken for granted ideas and approaches about how to engage learners, build relationships with students, and encourage discussion.

**Take-home messages:** Exploring distributed medical education without exploring the technologies—like buttons—that make it possible allows for, at best, partial understandings.

## 9DD14 (22577)

**Curricular Integration in Medical Science based in Clinical Cases for Primary Health Care**

*Helena Alves Soares Chini\**, Unifenas, Physiology, Alfenas, Brazil

*Eliana Martorano Amaral*, Unicamp, Gynecology and Obstetrics, Campinas, Brazil

**Background:** Learning experiences of Y1 students in the real professional practice scenario, encouraged by the National Curricular Guidelines (DCN, Brazil 2001) can promote meaningful and integrated learning.

**Summary of Work:** There are two phases: in the first, interviews were conducted by phone with 108 Brazil Medical Schools coordinators and in the second, there will be focal groups formed by students and interviews with teachers and course coordinators.

**Summary of Results:** Course coordinators interviewed came mostly from private medical schools (73.1%). All reported to be following the National Guidelines and promoting integration with public health services as induced by Ministry of Health (MH) projects. For 86.1% coordinators, multiprofessional team work is present, for 63.9% the curriculum is guided by prevalent diseases in the community; 75.9% agree that learning objectives and practical activities are relevant for the population; 71.3% totally agree that activities in the community will increase professionals social accountability. A total of 58.3% course coordinators foresee curricular integration using 'problems' built from real cases experienced in the primary health care. Many (70.4%) coordinators believe the use of information technology helps integrating the curriculum and 67.6% expressed that the used of these strategies are successful.

**Discussion and Conclusions:** "Problematization" of clinical cases within the community has been a pedagogical strategy for curricular integration in the majority of Medical Schools in Brazil. Almost half of the schools consider that the curricular contents are integrated and 58.3% use "problematization" from cases within the community.

**Take-home messages:** "Problematization" has been a strategy used for integration in Medical Schools in Brazil.

## 9DD15 (22726)

**New competency requirements meet an old integrated curriculum**

*Jan Frich\**, University of Oslo, Faculty of Medicine, Oslo, Norway

*Ingrid M. Middelthun*, University of Oslo, Faculty of Medicine, Oslo, Norway

*Knut E. A. Lundin*, University of Oslo, Faculty of Medicine, Oslo, Norway

*Ingrid Os*, University of Oslo, Faculty of Medicine, Oslo, Norway

**Background:** In 1996, a discipline-based six years medical curriculum at the University of Oslo was transformed into an integrated curriculum, using problem-based learning (PBL) as the main pedagogical approach. New competency requirements, with increased emphasis on primary health care, public health and teamwork, have set off a new revision of the curriculum. The purpose of this presentation is to discuss challenges with innovating and revising an integrated curriculum, based on PBL.

**Summary of Work:** In 2012-2013, a committee assessed evaluation reports, interviewed students and teachers and reviewed the existing teaching schedules for content, overlap and overload, aiming at identifying potentials for implementing new subjects and competencies.

**Summary of Results:** Both teachers and students reported that several subjects had become fragmented as they were being taught in several of the 12 semesters. The goal of integrating basic medical sciences and clinical subjects had not always been successful. Teachers' sense of ownership and responsibility for their subject and the curriculum as a whole had deteriorated. There had been an unintended expansion of teaching activities, while the content had virtually been unchanged.

**Discussion and Conclusions:** A new, revised curriculum has been developed and will be implemented from 2014, with somewhat less integration, introducing elective courses, more systematic training in practical skills, and an expanded project thesis.

**Take-home messages:** A challenge in revising an integrated curriculum is to balance the positive learning effects of integration, while avoiding the negative effects of fragmentation. An integrated model may cause a sense of alienation among faculty. This may be met through fostering collaborative learning environment and faculty development.