

## HEALTH CARE USE &amp; POLICY STUDIES - Consumer Role in Health Care

## PHP1

## EXPECTED DEMAND FOR HEALTH SERVICES FROM A VOLUNTARY INSURER

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**OBJECTIVES:** To estimate the demand for monthly services from a voluntary Colombian health insurer. **METHODS:** An econometric model that allowed to estimate the frequency of use was built. It worked based on historical information and its variations in accordance to the type of coverage for each specific health plan, the risk from each individual included age, sex, and the presence or lack their off of chronic illnesses. Based on this model, it is possible to predict the number of activities according to the distribution of the population on a global scale with the use of an additional model that showcased demographic changes. The data was obtained as expected activities and it allowed to estimate the total spending based on fixed rates. **RESULTS:** From a 4'905,582-health consumption records database, which was demanded by 222,183 affiliates from a total population of 275,619, it was estimated that in average an affiliate was likely to demand 1.69 services in 2018. From the total number of demanded services, clinical laboratory activities represented a 49.94%. The total and specific frequency changed based on the risk group the patient is part of. The highest is reserved for multichronic patients with diabetes, cardiovascular conditions and chronic renal disease undergoing dialysis, on the other hand, healthy young adults between 27 and 34-year olds are on the other side of the spectrum. They have the lowest frequency with a 0.02-. Lastly, it is established that the insurance policy with the highest coverage represents a higher demand for services with a 73.76% of the total demand. The frequencies themselves can be discriminated to a level of specified activities, as well. **CONCLUSIONS:** The estimated demand, through the established frequencies, allows the creation of a budget projection for a voluntary health insurer, and therefore the respective supply established in the quantity and type of services demanded.

## PHP2

## CHARACTERISTICS OF DOCTOR-SHOPPERS: A SYSTEMATIC LITERATURE REVIEW

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**OBJECTIVES:** Doctor-shopping involves visiting multiple doctors with the same health issue. It has significant consequences for patients and payers, as multiple consultations and overlapping prescriptions are often associated with abuse or misuse of drugs, polypharmacy, less continuity of care, and increased medical expenses. The aim of this study was to review the literature describing doctor-shoppers in the adult population. **METHODS:** A systematic literature review was performed in PubMed and supplemented by a Google search of grey literature. Overall, 2885 records were identified, out of which 43 were included in the analysis. The following data were extracted: definition of doctor-shopper, disease, treatment, patient characteristics, patient special needs, country. **RESULTS:** Definitions of doctor-shopping were heterogeneous. Overall, 40% of studies examined the use of strong, addictive drugs such as opioids, antidepressants, or psychoactive drugs, while the others included patients with chronic (e.g., diabetes, cancer, overactive bladder) or frequent disease (e.g., upper respiratory tract infections). Most studies were conducted in countries with easy access to health care resources (USA, France, Taiwan, Hong Kong). The prevalence of doctor-shopping ranged from 0.5% among opioid users in the USA to 25% of patients registered at general practices in Japan. Factors associated with doctor-shopping included comorbid mental disorders; history of opioid, alcohol, and other substance use disorders; greater distance between place of living and practitioner or pharmacy; younger age; longer time from diagnosis; additional comorbidities; and lower patient satisfaction. **CONCLUSIONS:** Knowing the characteristics of doctor-shoppers may help identify such patients and reduce the associated waste of medical resources, but concerns about the misuse of drug or health care resources should not prevent proper disease management. Further research is needed to cover a wider range of diseases and countries, and to examine the effect of health care regulations on doctor-shopping prevalence and costs.

## PHP3

## SURVEY OF THE PATIENT ORGANISATION SUBMISSION PROCESS (POSP) TO THE NATIONAL CENTRE FOR PHARMACOECONOMICS (NCPE) IN IRELAND

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**OBJECTIVES:** The NCPE initiated a review of the POSP in November 2017 to ensure a 'fit for purpose' patient engagement program is in place. One component of the review involved eliciting experiences and feedback from submitting patient organisations (POs). **METHODS:** A survey was developed using the online tool Survey Monkey™. A mixture of open and closed questions (n=16) addressed communications, timelines, ease of completion and areas for improvement. POs who had participated in the POSP between March 2016 and October 2017 were eligible for inclusion. Results were analysed in Microsoft Excel™. **RESULTS:** Surveys were sent to 12 POs of whom 6 (50%) responded. The majority of POs learned about the POSP and the specific drug assessment from a pharmaceutical company or other POs. The majority of POs (75%) considered 3 months sufficient time to submit the template. Deciding what information to collect, how to collect it, and communicating with the NCPE were identified as the most difficult aspects. POs used a

variety of techniques and sources to gather information for the submission; 83% contacted the NCPE for assistance. When asked to rank suggestions for improving the process in order of preference, written guidance on completing the template (60%) and examples of completed templates (33%) were identified as the preferred options. While POs did not rate their overall experience highly on a scale of 1-100 (range 17-60), the majority (83%) stated that they would engage in the process again. **CONCLUSIONS:** The survey identified areas where refinements of the POSP are merited, including communication processes, and provision of guidance and support to POs. A large proportion of POs are willing to engage again with the POSP demonstrating the enthusiasm for HTA participation amongst POs. The NCPE is currently developing additional guidance around the POSP in response to the findings of the survey.

## PHP5

## DEVELOPMENT OF THE PATIENT ORGANISATION SUBMISSION PROCESS IN THE NATIONAL CENTRE FOR PHARMACOECONOMICS (NCPE), IRELAND

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**OBJECTIVES:** The Patient Organisation Submission Process (POSP) commenced in 2016 and encourages patient organisations (POs) to gather information for inclusion in the Patient Organisation Submission of Evidence Template (POSET). As part of a review process of the POSP in November 2017, the views of key stakeholders were sought. **METHODS:** POs and participants in a patient HTA education program were surveyed using both open and closed questions. Themes included communications, difficulties with the current process and suggestions for improvement. A review and comparison of the POSP in other countries and HTAi tools was undertaken. The POSET was refined based on feedback and best-practice from other POSPs. The revised POSP and POSET were subject to a public consultation period of 1 month; advertised via umbrella POs, our website and social media. **RESULTS:** The survey was sent to 12 POs and 20 course participants and the overall response rate was 40%. The need for guidelines and a dedicated point of contact in the NCPE to assist POs with submissions was identified. The tone and layout of the POSET was refined. The need for a POs database for internal use, a process flow chart and a new section on NCPE website for the POSP was identified. Guidelines were developed to assist POs completing the POSET. Feedback from 14 stakeholders that participated in the public consultation led to additional refinements of the POSP on areas including communication, timeliness, clarity, and providing examples of completed templates and surveys. The enhanced POSP was implemented in June 2018. **CONCLUSIONS:** The NCPE has reviewed patient involvement in HTA using stakeholder feedback via surveys and public consultation to improve the POSP. Future considerations include developing online feedback surveys in response to submissions, on-going educational programmes and an annual report outlining patient engagement activities.

## PHP7

## DIGITALIZATION AND CUSTOMER-RESPONSIVE SECONDARY CARE SERVICES POTENTIALLY FREE HEALTH CARE CAPACITY: PREDICTED MONETARY BENEFITS OF VIRTUAL HOSPITAL 2.0

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**OBJECTIVES:** Virtual hospital 2.0 (VH2.0, [www.virtuaalisairaala2.fi](http://www.virtuaalisairaala2.fi)) is a publicly-funded joint project between Finnish university hospitals. VH2.0 includes novel, client-oriented digital specialised care service practices available for citizens, patients and professionals. Currently 85 patient groups and some 80,000 visitors each month use the existing 20 houses of VH2.0 Health Village ([www.terveyskylä.fi](http://www.terveyskylä.fi)). We carried out VH2.0's mid-term health economic evaluation. **METHODS:** Dynamic cost-benefit modelling from payer perspective predicting potential healthcare capacity freed (PHCCF, given as euros; 2016 value) by VH2.0 at producer (Helsinki university hospital, HUS) and at national (Finland) level. Based on year 2016 data and trends, expected over-time totals and increments in population structure, resource use (visits, letters, calls, e-appointments, e-messages, travelling) and unit costs were modelled for VH2.0 and expected current practice from year 2017 to 2021. **RESULTS:** At HUS level, the average predicted annual PHCCF with VH2.0 was around €42 million for first five years, summing up to around €208 million PHCCF in the first five years. Most important key value drivers for the predicted PHCCF at healthcare producer's level were treatment calls, revisits, and treatment visits. Average predicted annual PHCCF with VH2.0 was around €261 million at the Finnish level for first five years, summing up to around €1.3 billion during the first five years. Most important key value drivers for the predicted national PHCCF were revisits, treatment calls, and travelling. **CONCLUSIONS:** VH2.0 aims to improve the equality of the citizens by increasing the availability and quality of healthcare services for all Finns with novel digital care and eHealth service practice. Our prediction demonstrates that VH2.0 has substantial PHCCF, available for these purposes. From the perspective of opportunity costs, such technological revolution can produce significant effectiveness elsewhere. However, after the prediction presented here, evaluation, assessment and implementation of the best digitalization and eHealth practices are still warranted.

## PHP8

## THE ROLE OF GENERAL PRACTITIONERS IN TRAUMA CARE: VARIATION BY INJURY TYPE, REGION, PATIENT PROFILE, AND OVER TIME

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