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"Smartphones are increasingly relied upon by healthcare professionals to facilitate communication, information retrieval and patient care documentation. The use of mobile technology, primarily by physicians, has been studied in various clinical settings and has been subjectively associated with positive outcomes; however, there is a lack of published evidence supporting the use of smartphones by hospital-based clinical pharmacists."

Cartwright and Spina, Smartphones in clinical pharmacy practice: Is it evidence-based?, page 85

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# The Pharmaceutical Pricing and Reimbursement Information (PPRI) initiative—Experiences from engaging with pharmaceutical policy makers

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Cooperation;
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## Abstract

*Objective:* To present the Pharmaceutical Pricing and Reimbursement Information (PPRI) initiative, as an illustrative example of an engagement with policy makers in the field of pharmaceutical pricing and reimbursement.

*Methods:* The paper is based on internal assessments and feed-back from the involved policy makers as well as an external evaluation.

*Results:* PPRI is a network of around 70 institutions, mainly public authorities for pharmaceutical pricing and reimbursement information from 41, mostly European, countries. It evolved from a European Commission co-funded project in 2005–2007 into a self-funded Member States borne initiative. The first years of PPRI were characterized by trust-building and developing a joint understanding and language. In the initial stages, country reports, so-called 'Pharma Profiles', written by policy makers, were among the most important deliverables. In the course of time, ad-hoc queries which require immediate, brief and precise answers have gained importance. PPRI is predominantly an internal network for and with policy makers; it is not a policy-making body.

*Conclusions:* After nearly one decade of existence, the PPRI network appears to be a sustainable network. Policy makers are committed to provide and share data and to contribute to the network as they have an added value for their daily work from access to evidence and the exchange of information and experience with fellow colleagues from other countries.

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The change in organisation from a research project to an independent networking initiative offers flexibility to react quickly to current challenges, but implies limited funding for the research agenda.

## Introduction

Governments are struggling with providing their citizens with safe, effective and high quality medicines and, at the same time, ensuring best value for money and financial sustainability. Given the demographic developments such as aging populations, the launch of new medicines being granted high prices and stricter clinical targets [1], this challenge remains for European countries [2-4]. Policy makers have to take decisions on medicine prices and reimbursement, they need to select the most appropriate policy mix from a range of supply-side and demand-side measures, and they are recommended to promote a more rational use of medicines [5-9]. They need to constantly adjust their pharmaceutical policies in response to changes in the environment. Thus, information on pharmaceutical systems in other countries, particularly of the same region, and on the experiences made with specific policies elsewhere is vital for policy makers.

In the first years of this century the body of information about pharmaceutical policies in European countries was limited. A few studies were available, mainly produced by supranational institutions [10-12] and research institutions [13-15]. Contacts existed on a bilateral basis between international institutions and researchers on the one hand and public authorities in European countries on the other hand, but there were limited contacts among colleagues of Medicines Agencies or of ministries responsible for setting medicine prices or deciding on reimbursement in different countries. Having identified this urgent need for cross-country learning among policy makers, we decided to establish a network of competent authorities for pharmaceutical pricing and reimbursement. In 2004 we, organised in a consortium of an Austrian research institute and WHO, proposed a 2-year project called ‘Pharmaceutical Pricing and Reimbursement Information (PPRI)’ to the European Commission which agreed to co-fund it. The initiative is ongoing though the organizational and funding framework has been modified over the years.

The objective of this paper is to present the Pharmaceutical Pricing and Reimbursement Information (PPRI) project as an illustrative example of an engagement with policy makers in the field of pharmaceutical pricing and reimbursement. We will discuss how the PPRI project evolved, how the organisational and funding framework was modified over the years and how these changes impacted the working methods and deliverables. Particularly, we will look into how the needs, particularly information needs, of the policy makers involved have changed following successful opportunities for cross-country learning. Finally, we will explore, on the example of PPRI, supportive and limiting factors of such an initiative, including challenges for sustainability, in order to allow similar undertakings to learn from these experiences.

## Methods

The presentation of the Pharmaceutical Pricing and Reimbursement Information (PPRI) project and its changes over time is based on factual background information to set the scene, along with an assessment of the engagement with policy makers. For the analysis we draw from observations made by the authors, feedback provided by the involved policy makers at regular intervals during reflection rounds on the added value and sustainability of the initiative, and two external reports. The latter comprise an independent evaluation carried out by the Utrecht World Health Organization Collaborating Centre in 2011 to assess the progress made in the PPRI ‘sister project’ Pharmaceutical Health Information System (PHIS) [16] and a European Commission assessment on selected public health projects [17].

## Results

### From an European Commission co-funded project to a self-sustainable initiative

The Pharmaceutical Pricing and Reimbursement Information (PPRI) project started in April 2005, with the aim to develop a network of competent authorities to improve information and knowledge on the pharmaceutical systems in Europe and to facilitate cross-country learning among policy makers since no such initiative existed at that time. It was commissioned under the Public Health Information Programme of the European Commission (EC), Health and Consumer Protection Directorate-General and co-funded by the Austrian Federal Ministry of Health and Women's Issues (today Federal Ministry of Health). The Austrian Health Institute (abbreviated ÖBIG at that time) and the World Health Organization (WHO), Regional Office for Europe were in charge of managing the project. Within 24 months, the following deliverables had to be achieved: a survey of information needs expressed by policy makers and stakeholders; country reports; indicators for benchmarking pharmaceutical system information; a comparative analysis and dissemination activities including a website and a conference.

Close to the end of the EC funded project, the policy makers represented in the PPRI network expressed their strong interest to continue cooperation as they recognized the value of access to and exchange of information. It was jointly decided to maintain the network on a voluntary basis. The network members, whose travels and work of drafting country reports had been financially supported from the project budget, confirmed commitment to the continuation of the initiative, by sharing information and providing data, attending the bi-annual meetings and, in

**Table 1** Key activities undertaken in the Pharmaceutical Pricing and Reimbursement Information (PPRI) project, 2005-today.

| Tasks | Objective | Outcomes and deliverables |
|---|---|---|
| Networking | To facilitate an exchange of information among policy makers of different countries | Establishment of a network of competent authorities*, maintenance and extension of the network, organisation of regular (usually bi-annual) networking meetings, establishment of communication infrastructure (Intranet, up-to-date mailing lists), safeguarding principles of mutual respect, common understanding trust |
| Needs assessment | To explore information needs related to pharmaceutical policies of policy makers and stakeholders | A list of key information to be surveyed in the country reports*, continuous assessment of (information) needs of the involved policy makers in order to align the agenda of the PPRI initiative with their needs |
| Indicators | To develop indicators to compare pharmaceutical systems | A list of indicators for benchmarking pharmaceutical pricing and reimbursement information*, further development and extension of the indicators (including a consideration of hospital relevant aspects) |
| Country reports | To survey comprehensive information and data about the pharmaceutical system of a country in a homogenous and comparable format | A total of 48 country reports ('Pharma Profiles') including updated versions (22 countries produced Profiles in the framework of the EC project*), production of a total of 31 country posters at different points in time (PPRI conferences, networking meetings)—all Pharma Profiles and country posters were produced by national policy makers |
| Ad-hoc queries | To facilitate access to specific country information | Launch of more than 200 'PPRI network queries' by policy makers and the PPRI secretariat since their start in 2007; production of a few research articles** by the PPRI secretariat based on findings from these queries |
| Benchmarking | To perform cross-country comparisons | 2008 report which presented benchmarking results of pharmaceutical pricing and reimbursement information in European countries ('PPRI Report'*, **), establishment of a database** of key indicators for pharmaceutical pricing and reimbursement in 2011 (within the framework of the PHIS project), presentations of updated comparisons of key indicators at conferences, articles** on updated benchmarking information |
| Glossary | To facilitate a joint understanding and language | Production of an English glossary* of pharmaceutical terms in 2006 (done within the EC project but not originally planned), further updates and extensions (annual updates of the print version**, regular updates of the electronic versions**), production of a German and a Spanish glossary** |
| Policy monitoring | To survey major changes in pharmaceutical policies in European countries | Since 2010 bi-annual surveys with the policy makers of the PPRI network on past and planned policy changes related to pharmaceutical pricing, reimbursement and rational use of medicines. Publication of an article** about pharmaceutical policy changes in Europe during the global financial crisis. Use of the updated data for the database and for policy analysis research. |
| Policy analysis | To explore the impact of pharmaceutical policies | Research performed on commonly applied pharmaceutical policies such as external price referencing, exploring the impact on medicines prices and utilization, research articles** |
| Dissemination-Conferences | To disseminate PPRI and its outcome to stakeholders and the public | |

**Table 1** (*continued*)

| Tasks | Objective | Outcomes and deliverables |
|---|---|---|
| | | Organisation of two PPRI conferences (June 2007*, September 2011), conference proceedings accessible** |
| Dissemination-Other activities | To disseminate PPRI and its outcome to stakeholders and the public | Around 10 presentations related to PPRI aspects per year at meetings of policy makers or (commercial) conferences, publication of research articles** |

EC = European Commission, PHIS = Pharmaceutical Health Information System, PPRI = Pharmaceutical Pricing and Reimbursement Information.

*Done during the European Commission (EC) co-funded project 2005-2007.

**Pharma Profiles, country posters, the glossary, the database and publications (reports, articles) presenting PPRI outcomes and/or based on findings from the PPRI research are accessible at http://whocc.goeg.at.

rare occasions, hosting a network meeting. The members did not receive any funding for their activities.

The Austrian Health Institute (called Gesundheit Österreich GmbH/GÖG from 2006 on) was established as the PPRI secretariat. The work of the PPRI secretariat has been funded by the Austrian Federal Ministry of Health.

The PPRI report [18] published in 2008 recommended to investigate medicines management, particularly procurement and financing, in hospitals, which was an area of scant knowledge at that time. From autumn 2008 till spring 2011 the Austrian Health Institute was commissioned by the Executive Agency for Health and Consumers (EAHC) to carry out the Pharmaceutical Health Information System (PHIS) project which aimed at increasing knowledge and exchange of information on pharmaceutical pricing and reimbursement policies in the EU Member States, covering both the out-patient and the in-patient sectors. The PPRI network members were again involved, in addition to stakeholders and experts from hospitals.

During the PHIS project period, the ‘PPRI network’ and the enlarged ‘PHIS network’ co-existed. After the end of the PHIS project in April 2011, the policy makers reiterated their willingness to continue, but they called for an end of the co-existence of the two networks which had also implied separate meetings. The PPRI and PHIS networks merged and have continued cooperation under the name of ‘PPRI’.

Table 1 provides an overview of major PPRI activities, including those arising from early stages and further tasks starting later. A few of them will be presented in further detail in the following sections.

## Pharma Profiles to comply with policy makers' need for comprehensive country information

In its early days, a key activity of PPRI was the production of country reports which, given the lack of information in the public domain, met the need of the involved policy makers to learn about other countries. As a preparatory task for the development of the template ([19], current versions: [20,21]) for the country reports, the PPRI project management undertook a comprehensive needs assessment survey with more than 100 policy makers and stakeholders. The respondents identified access to medicines and cost-containment as priority topics [22].

We applied a different approach than the usual one to produce the country profiles. In a ‘traditional’ survey, the national representatives would have provided defined data, via a questionnaire for instance, and the project management team comprising researchers and policy advisers would have written the reports. However, in the case of the ‘PPRI Pharma Profiles’, as these country reports were called, the policy makers were responsible authors of the national reports, and the project management team acted as reviewers. As part of the review process, discussions were held between the country authors with their specific and detailed knowledge on their country and the reviewers with their general perspective of a comparative health system analysis approach. It was an intensive, time-consuming process but we believe that it benefited authors and editors in terms of quality, common understanding and acceptance of the reports. It might be criticized that an external review process was undertaken only in a few cases (the draft profiles were sent to stakeholders for review), but this is considered to be compensated by other quality assurance mechanisms such as the profile template to ensure consistency and comparability, the mandatory compliance to the glossary, and the internal but robust review process between the country authors and the PPRI project management team. In addition, since policy makers were the responsible authors of ‘their’ PPRI Pharma Profiles, they were committed to report accurately.

At the same time, this active engagement of policy makers also influenced their expectations which were ‘downgraded’ from an ‘ideal’ level asking for complete in-depth coverage of all relevant topics to a more focused approach since they became aware of the difficulties to provide the data for their own countries. Nonetheless, in some cases the PPRI network agreed for strategic reasons on indicators whose limited data availability for most European countries was generally known. This has allowed policy makers to push for the collection of the required data in their country.

As the PPRI Pharma Profiles were mostly written by policy makers themselves, they counted with the political approval from the ministries at high level and therefore they are now seen and accepted as the official documents on pharmaceutical policies in those countries. From a practical point of view, this facilitated the daily life of policy makers and technical staff working in the authorities because they could refer to the publicly available 'PPRI Phama Profiles' [23] in case of requests by journalists, researchers and international institutions.

Some Pharma Profiles have been updated by the network members in the case of policy changes, and further updates were provided in the form of posters, which were also published [24]. External evaluators highlighted the fact that the WHO/Global Fund Pharmaceutical Country profiles were modelled after the Pharma Profiles as an indication of the success of the selected methodology [16].

## Developing a common language

One key deliverable of the PPRI initiative is a glossary which aims to promote a better understanding and a joint language. In an early phase of the PPRI project, misunderstandings and differences in the interpretation of technical and policy terms became evident among the policy makers. This might have been simply a language issue, but we believe that this was mainly because network members had their country specific concept in mind.

For this reason we produced a glossary of terms on pharmaceutical policies, which had previously not been planned. It was modified and enlarged several times. During the PHIS project, hospital experts were consulted and terms related to in-patient care (e.g. Pharmaceuticals and Therapeutics Committee, procurement, interface management) were included. Today, the WHO Collaborating Centre for Pharmaceutical Pricing and Reimbursement Policies at the Austrian Health Institute is responsible for maintaining the glossary and updates it regularly, in consultation with the policy makers: the current version [25] has been extended to around 400 terms. We observed with interest that by now the most PPRI network members are using the terms from the glossary. Moreover, we are glad to see that the glossary is considered as a reference by others [3,26,27].

## Specific ad-hoc queries

In the course of time, the policy makers have increasingly requested more specific information. This need was met by the so-called 'PPRI network queries'.

These network queries started in late 2007 when one policy maker addressed the group searching for information on a very specific matter in the other countries. Fellow policy makers followed this model by asking for the reimbursement of a specific medicine, for instance. In the meantime more than 200 PPRI network queries have been launched. In order to facilitate their implementation and to ensure the principle of solidarity among the network members (a 'give and take' approach), the PPRI secretariat defined a set of guidelines and templates.

Network queries are intended for internal use. However, with the consent of all network members the generated knowledge of such a query can also be used for research purposes, and, in fact, the PPRI secretariat has published a few articles based on PPRI queries for instance, results of the regular policy monitoring queries [28,29], a survey about discounts and rebates in the out-patient sector in European countries [30], another one about cost-containment measures of European countries in response to the financial crisis [31], the impact of policy measures on pharmaceutical expenditure [32] and an analysis of the organizational and funding framework of an oncology medicine and its accompanying diagnostics [33].

## A growing network

We started by establishing a network of policy makers from 24 countries (all 25 EU Member States at that time except Spain plus Bulgaria). At the end of the EC co-funded PPRI project in 2007 the network had enlarged to 31 countries (27 EU Member States except Romania, plus Albania, Canada, Norway, Switzerland, and Turkey). PPRI today comprises more than 70 institutions, mainly competent authorities for pharmaceutical pricing and reimbursement from 41 countries (for details see Table 2) and some European and international institutions (European Commission services and agencies, OECD, WHO, World Bank).

In the initial stages of the project, the PPRI project management had planned to build a network consisting of one relevant authority from each EU Member State. Whereas in the beginning we had to convince potential network members to participate, in the course of the years additional institutions volunteered to join as the PPRI network and its benefits for the participants became better known.

PPRI was established as a European network. Nonetheless, policy makers from a few non-European countries addressed us to join. In 2013, the PPRI network included four non-European countries: Canada, Israel, South Africa and South Korea. The policy makers of these countries explained their interest to participate with the fact that they closely monitor which policy options European countries have chosen because they align their pharmaceutical policies rather to Europe than to the countries in their region. Setting medicine prices via external price referencing (i.e. international price comparison), South Africa, for instance, considers the prices of Australia, New Zealand, Spain, and Canada [34].

There are variances in the economic situation and the selected policy options in the field of medicines among the European PPRI countries: The EU Member States apply similar policy options for medicines, which are predominantly publicly funded, but the design varies [18,28,35,36]. Policy makers from EU candidate countries (e.g. Iceland) are interested in learning from EU experiences. At the same time, policy makers from EU Member States expressed a strong interest in understanding pharmaceutical policies in Croatia, which joined the European Union in July 2013. Though Croatia took several measures, including those targeting doctors to improve prescribing efficiency and limit utilisation [37,38], the key point of interest for the PPRI network members was medicine prices since some EU countries refer to other Member States in price setting and thus had to adapt their pricing procedure with the accession of Croatia. PPRI also include low- and middle-income countries such as Albania, Moldova and Ukraine where the state procures some funded medicines, but most medicines have to be purchased out-of pocket by the patients. Network members of these countries are highly interested in the policies applied by the European high-income countries, since plans exist to extend their pharmaceutical reimbursement coverage.

**Table 2** National competent authorities for pharmaceutical pricing and reimbursement represented in the PPRI network.

| Country | Year of joining PPRI[a] | | | No. institutions | Type of institution | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 2005-2007 | 2008-2010 | 2011-2013 | | MA | Min.[b] | SHI | NHS | Other[c] |
| Albania | √ | | | 1 | | | √ | | |
| Austria | √ | | | 4 | | √ | √ | | √ |
| Belgium | √ | | | 1 | | | √ | | |
| Bulgaria | √ | | | 1 | | | | | √ |
| Canada | √ | | | 1 | | | | | √ |
| Croatia | | √ | | 1 | | | √ | | |
| Cyprus | √ | | | 2 | | √ | √ | | |
| Czech Republic | √ | | | 2 | √ | √ | | | |
| Denmark | √ | | | 2 | √ | √ | | | |
| Estonia | √ | | | 1 | | √ | | | |
| Finland | √ | | | 2 | | √ | √ | | |
| France | √ | | | 2 | | √ | √ | | |
| Germany | √ | | | 2 | | √ | | | √ |
| Greece | √ | | | 3 | √ | √ | | | √ |
| Hungary | √ | | | 2 | | √ | √ | | |
| Iceland | | √ | | 2 | √ | √ | | | |
| Ireland | √ | | | 3 | | √ | | √ | √ |
| Israel | | | √ | 1 | | √ | | | |
| Italy | √ | | | 1 | √ | | | | |
| Latvia | √ | | | 1 | | | | √ | |
| Lithuania | √ | | | 1 | | √ | √ | | |
| Luxemburg | √ | | | 2 | | √ | √ | | |
| Macedonia | | | √ | 1 | | | √ | | |
| Malta | √ | | | 1 | | √ | | | |
| Moldova | | | √ | 1 | √ | | | | |
| Netherlands | √ | | | 1 | | √ | | | |
| Norway | √ | | | 3 | √ | √ | | | √ |
| Poland | √ | | | 1 | | √ | | | |
| Portugal | √ | | | 1 | √ | | | | |
| Romania | | √ | | 1 | | √ | | | |
| Serbia | | √ | | 1 | | | √ | | |
| Slovakia | √ | | | 2 | √ | √ | | | |
| Slovenia | √ | | | 3 | √ | √ | √ | | |
| South Africa | | √ | | 1 | | √ | | | |
| South Korea | | √ | | 2 | | | √ | | √ |
| Spain | √ | | | 2 | | √ | | | √ |
| Sweden | √ | | | 1 | √ | | | | |
| Switzerland | √ | | | 1 | √ | | | | |
| Turkey | √ | | | 1 | | | | | √ |
| Ukraine | | | √ | 1 | | √ | | | |
| United Kingdom | √ | | | 1 | | √ | | | |

MA=Medicines Agency, Min.=ministry, NHS=National Health Service, PPRI=Pharmaceutical Pricing and Reimbursement Information, SHI=Social Health Insurance.

[a] In case of more than one institution of that country are members of PPRI, we relate to the time period when the first institution acceded to PPRI.

[b] Usually the Ministry of Health, but in some countries also the Ministry of Social Affairs, Ministry of Welfare, etc.

[c] State-owned research institutions, HTA agencies, procurement agencies.

Though predominantly a European network, external evaluators have pointed out that 'the value of the network as a global model remains very attractive' [16]: The model is being used in the Western Pacific region for sharing public sector procurement information, for instance.

## Discussion

This paper describes the Pharmaceutical Pricing and Reimbursement Information (PPRI) network as an example for an engagement with policy makers, and presents its activities from its beginning in 2005 until today.

The PPRI initiative changed over the years, and the information needs of the involved policy makers also changed. One might argue that this is the result of successful capacity building activities in the early stages of PPRI when, due to limited information in the public domain, the policy makers had an urgent need to learn as much as possible from the other countries—but from a broad perspective. This information need was met with the production of the country profiles. Today, as the policy makers have gained expertise about the pharmaceutical systems across Europe, their information requests have become very concrete and focused. The demand for this new type of information is likely to have contributed to an increasing use of PPRI network queries. Furthermore, it could be speculated that this frequent use of the PPRI network query tool might be linked to the global financial crisis, which hit several countries of the network to different degrees. We observed that the policy makers tend to set increasingly shorter deadlines for receiving answers from their colleagues. This might be an indication of the pressure to react on short notice which policy makers face in times of crisis.

In addition, a closer collaboration between EU Member States during the last years in several areas (e.g. cross-border healthcare Directive, in the field of rare diseases with the establishment of reference centres) might have also contributed to an increasing networking and frequent requests for specific information.

Furthermore, the changes related to PPRI also result, to a considerable extent, from a modified organisational and funding framework. The European Commission's co-funding of PPRI, and its ‘sister project’ PHIS, made possible a range of large-scale deliverables such as several country reports or a database. The current framework of being an initiative borne by Member States offers the advantage of increased flexibility in deciding on research topics and items for the agenda of meetings, thus allowing quick responses to current challenges. At the same time, it constitutes a limitation since the current system, with funding provided by a sole country (Austria) with the key aim to run the PPRI secretariat, does not allow for major research undertakings.

Another difficulty with a Member States borne initiative is the fact that any self-organisation still requires a coordinating structure: this task has been assumed by the Austrian Health Institute and has been funded by the Austrian Ministry of Health. This is another risk to sustainability: if ever the support for the PPRI secretariat stops, this would probably negatively affect the continuation of the initiative.

Another challenge for the sustainability is that the PPRI initiative lives from the commitment and the contributions of the policy makers who provide information and data and share experiences on a purely voluntary basis.

When PPRI started nearly a decade ago, it was the sole initiative for policy makers of pharmaceutical pricing and reimbursement. There were few network activities (e.g. meetings organized by European or international institutions such as WHO or OECD) with official country representatives; cooperation rather existed among researchers (e.g. the EUROMEDSTAT research project [39,40]) but they did not involve policy makers as active partners. The attractiveness of PPRI to policy makers in the early years could also be attributed to its uniqueness in the European context.

Meanwhile, networks which engage with policy makers in the field of medicines have been created or extended to policy makers: the CAPR (Competent Authorities for Pricing and Reimbursement of Pharmaceuticals) network was launched by the European Commission, Directorate-Generate for Enterprise and Industry in 2007 [27]; the EUNetHTA initiative on Health Technology Assessment (HTA) has been developed from a research project into a sustainable cooperation of agencies and researchers under the EC framework [41]; an informal network of European reimbursement authorities and researchers, called ‘Piperska group’, was set up in 2008, with the aim of promoting a more rational use of medicines [1]; and staff of social insurance institutions are involved in the MEDEV (Medicines Evaluation) group [42]. These initiatives complement the work of PPRI; for instance, by analyzing the impact of different supply and demand-side measures, which is done by the ‘Piperska group’.

Given the emergence of other initiatives, it may be questioned why the PPRI network members still continue to support PPRI via their contributions. According to personal communication of the involved policy makers, they are highly committed to contribute to PPRI because they benefit from it in their daily work, through the regular network meetings offering an exchange of information and discussions in an atmosphere of mutual respect, the access to data obtained in research done by the PPRI secretariat and the possibility to immediately contact fellow colleagues in case of ad-hoc queries. As shown from other cooperation projects [43], trust building is of key relevance.

Moreover, for many policy makers it has proved helpful to provide evidence and benchmarking data to their hierarchy and the public to explain planned policy changes. For instance, data which showed that Portugal was the only European country with higher generic market shares in value than in volume (an indication for high generic prices) could be used by Portuguese policy makers to continue implementing generic promotion policies and reaching a break-even point in 2010 at which time generics shares became lower in value than in volume [44].

PPRI is a network for policy makers. Though a wealth of information provided by the network members (e.g. the Pharma Profiles) is publicly accessible in the Internet, the PPRI network can be considered as a predominantly internal exercise. But PPRI is not a policy-making body. In its current understanding, PPRI would never publish joint statements or policy papers. The policy makers make use of what they have learnt in PPRI for their national work and the decisions to be taken on pharmaceutical pricing and reimbursement. PPRI, with its focus on pharmaceutical policies, is believed to have a ‘snowball effect’ on other policy areas: ‘Once you have a successful health programme nationally like PPRI, it makes it easier to examine other health areas in the future and implement future health programmes’, said a country representative [17].

Despite its understanding as an internal network for policy makers, and despite limited funding, PPRI provides added value to the ‘outside’ world due to the open access provision of country reports and posters in the Internet, the dissemination of results via seminars and conferences, and the publication of results in scientific articles in recent years.

## Limitations

This paper was written by the members of the initial PPRI project management team, based on assessments and observations made and feedback received from network members in 8 years of PPRI's existence. We acknowledge that the views and observations expressed in the article are subjective.

## Conclusions

The engagement with the policy makers in the PPRI network has proved to be a long-term cooperation, in spite of limitations in funding. The sustainability of the network has been ensured up to now by the contributions of the policy makers involved: Seeing a personal added value for their daily work, they are committed to getting involved and contributing time resources, ideas and data.

The major principles of PPRI are trust and mutual respect among the network members, a common understanding of the aims of pharmaceutical policies, a joint language and a culture of sharing information within the network. The focus of the PPRI network has been the support for and among the policy makers whose information needs have changed over time. With increasing knowledge about pharmaceutical policies in other countries, queries have become more specific.

The change in organisation from a research project to an independent networking initiative borne by all members but funded by one country which PPRI has undergone offers flexibility to react quickly to current challenges but has resulted in limited funding for the research agenda. A Pan-European approach might be a more appropriate solution to ensure sustainability.

The lessons learned in the PPRI experience are likely to be of relevance beyond that network and should be considered in other initiatives of engagement and cooperation with policy makers.

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None declared.

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## References

[1] Garattini S, Bertelé V, Godman B, Haycox A, Wettermark B, Gustafsson L, et al. Enhancing the rational use of new medicines across European health care systems. Eur J Clin Pharmacol 2008;64(12):1137–8.

[2] Carone G, Schwierz C, Xavier A. Cost-containment policies in public pharmaceutical spending in the EU. Brussels: European Commission, Directorate-General for Economics and Financial Afairs, 2012. 〈http://whocc.goeg.at/Literaturliste/Dokumente/FurtherReading/DGEconomy_Finance_CostcontainmentPharmaceutical_ecp_46.pdf〉.

[3] Espin J, Rovira J. Analysis of differences and commonalities in pricing and reimbursement systems in Europe. Brussels: Escuela Andaluza de Salud Publica, funded by DG Enterprise and Industry of the European Commission, 2007. 〈http://whocc.goeg.at/Literaturliste/Dokumente/FurtherReading/EASP%20Report%202007_Analysis%20of%20differences%20and%20commonalities.pdf〉.

[4] Kaplan WA, Wirtz VJ, Mantel-Teeuwisse AK, Stolk P, Duthey B, Laing R. Priority medicines for Europe and the world. 2013 Update. World Health Organization; 2013. 〈http://www.who.int/entity/medicines/areas/priority_medicines/MasterDocJune28_FINAL_Web.pdf〉.

[5] World Health Organization (WHO). How to develop and implement a national drug policy, 2nd ed. Geneva; 2001. 〈http://whqlibdoc.who.int/publications/924154547X.pdf〉.

[6] World Health Organisation. Measuring medicine prices, availability, affordability and price components. Geneva: WHO,

2008. ⟨http://www.who.int/entity/medicines/areas/access/OMS_Medicine_prices.pdf⟩.

[7] OECD. Pharmaceutical Pricing Policies in a Global Market. Paris: OECD, 2008. ⟨http://www.oecd-ilibrary.org/content/book/9789264044159-en⟩.

[8] World Health Organization (WHO). Promoting rational use of medicines: Core components. WHO Policy Perspectives on Medicines, No. 5. Geneva, 2002. ⟨http://archives.who.int/tbs/rational/h3011e.pdf⟩.

[9] Godman B, Shrank W, Andersen M, Berg C, Bishop I, Burkhardt T, et al. Policies to enhance prescribing efficiency in Europe: findings and future implications. Front Pharmacol 2010;1:141.

[10] Jacobzone S. Pharmaceutical policies in OECD countries: reconciling social and industrial goals. Paris: OECD Publishing; 2000. ⟨http://archives.who.int/prioritymeds/report/append/22d_oecd_apx.pdf⟩.

[11] Dukes MNG, Haaijer-Ruskamp FM, de Joncheere K, Rietveld AH. Drugs and money. Prices, affordability and cost containment. Amsterdam: World Health Organization; 2003. ⟨http://apps.who.int/medicinedocs/fr/d/Js4912e/⟩.

[12] Falkenberg T, Tomson G. The World Bank and pharmaceuticals. Health Policy Plann 2000;15(1):52–8.

[13] Mossialos E, Mrazek M, Walley T. Regulating pharmaceuticals in Europe: striving for efficiency, equity and quality. Maidenhead: European observatory on health systems and policies series; 2004. ⟨http://www.euro.who.int/__data/assets/pdf_file/0008/98432/E83015.pdf⟩.

[14] Rosian I, Antony K, Habl C, Vogler S, Weigl M. Benchmarking pharmaceutical expenditure. Cost-containment strategies in the European Union. Vienna: Österreichisches Bundesinstitut für Gesundheitswesen (ÖBIG); 2001. ⟨http://whocc.goeg.at/Literaturliste/Dokumente/BooksReports/OEBIG_REPORT%20BENCHMARKING_engl_2001.pdf⟩.

[15] Rosian I, Habl C, Vogler S. Pharmaceuticals market control in nine European countries. Vienna: Österreichisches Bundesinstitut für Gesundheitswesen (ÖBIG); 1998.

[16] Hoebert J, Mantel-Teuwisse A. PHIS evaluation report. Utrecht: Pharmaceutical Health Information System (PHIS); 2011. ⟨http://whocc.goeg.at/Literaturliste/Dokumente/FurtherDocuments/PHIS%20evaluation%20report.pdf⟩.

[17] Executive Agency for Health and Consumers (EAHC). EU Health Programme: working together to improve public health in Europe – a selection of Public Health Projects with an important impact for EU Member States. In collaboration with the Health Programme's National Focal Points (NFP) and the Directorate General for Health and Consumers (DG SANCO). 2011. ⟨http://whocc.goeg.at/Literaturliste/Dokumente/FurtherReading/EAHC_NFP_EUHealthProgramme_ImpactProjects.pdf⟩.

[18] Vogler S, Habl C, Leopold C, Rosian-Schikuta I, de Joncheere K, Lyager Thomsen T. PPRI Report. Vienna: Gesundheit Österreich GmbH/Geschäftsbereich ÖBIG; 2008.

[19] Vogler S, Habl C, Leopold C, de Joncheere K, Lyager Thomsen T. PPRI Pharma Profile Template. Vienna: Pharmaceutical Pricing and Reimbursement Information; 2007. ⟨http://whocc.goeg.at/Literaturliste/Dokumente/BooksReports/PPRI_Report_final.pdf⟩.

[20] Zimmermann N, Vogler S. PPRI/PHS Pharma Profile Template. Vienna: Pharmaceutical Pricing and Reimbursement Information; 2013. ⟨http://whocc.goeg.at/Publications/Methodology⟩.

[21] Zimmermann N, Vogler S. Short PPRI/PHS Pharma Profile Template. Vienna: Pharmaceutical Pricing and Reimbursement Information; 2013. ⟨http://whocc.goeg.at/Publications/Methodology⟩.

[22] Thomsen TL, de Joncheere K. Needs assessment report. Geneva: Published as Annex VIa of the PPRI Technical Interim Report; 2006.

[23] PPRI Network Members et al. PPRI /PHIS Pharma Profiles—country specific reports on pharmaceutical systems and policies. Vienna, 2007–2013. Accessible at: ⟨http://whocc.goeg.at/Publications/CountryReports⟩.

[24] PPRI Network Members et al. PPRI/PHIS Posters—country specific reports on different issues related to pharmaceutical systems and policies. Vienna, 2007–2013. Accessible at ⟨http://whocc.goeg.at/Publications/CountryPosters⟩.

[25] WHO Collaborating Centre for Pharmaceutical Pricing and Reimbursement Policies. Glossary of pharmaceutical terms. Update 2013. Regularly updated online. Vienna: 2013. ⟨http://whocc.goeg.at/Literaturliste/Dokumente/MethodologyTemplate/PHIS%20Glo⟩.

[26] World Health Organization. Development of Country Profiles and monitoring of the pharmaceutical situation in countries. ⟨http://www.who.int/medicines/areas/coordination/coordination_assessment/en⟩.

[27] Bouvy J, Vogler S. Background paper 8.3 pricing and reimbursement policies: impacts on innovation. In: World Health Organization (editor.). Priority Medicines for Europe and the World "A Public Health Approach to Innovation". Update on 2004 Background Paper. 2013. ⟨http://www.who.int/entity/medicines/areas/priority_medicines/prior_med_ch8/en/index.html⟩.

[28] Vogler S, Habl C, Bogut M, Voncina L. Comparing pharmaceutical pricing and reimbursement policies in Croatia to the European Union Member States. Croat Med J 2011;52(2):183–97.

[29] Vogler S. The impact of pharmaceutical pricing and reimbursement policies on generics uptake: implementation of policy options on generics in 29 European countries—an overview. GaBI Journal 2012;1(2):93–100.

[30] Vogler S, Zimmermann N, Habl C, Piessnegger J, Bucsics A. Discounts and rebates granted to public payers for medicines in European countries. South Med Rev 2012;5(1):38–46.

[31] Vogler S, Zimmermann N, Leopold C. de Joncheere K. Pharmaceutical policies in European countries in response to the global financial crisis. South Med Rev 2011;4(2):22–32.

[32] Leopold C, Vogler S, Piessnegger J, Bucsics A. Aktuelle Heilmittelausgaben und arzneipolitische Trends in Europa. Soziale Sicherheit 2013;9:414–29.

[33] Leopold C, Vogler S, Habl C, Mantel-Teeuwisse A, Espin J. Personalised medicine as a challenge for public pricing and reimbursement authorities—a survey among 27 European countries on the example of trastuzumab. Health Policy 2013;113(3):313–22.

[34] Espin J, Rovira J, de Labry AO. Working paper 1: external price referencing—review series on pharmaceutical pricing policies and interventions. Geneva: World Health Organization and Health Action International; 2011. ⟨http://www.haiweb.org/medicineprices/24072012/ERPfinalMay2011.pdf⟩.

[35] Vogler S, Espin J, Habl C. Pharmaceutical Pricing and Reimbursement Information (PPRI)—New PPRI analysis including Spain. Pharm Policy Law 2009;11(3):213–34.

[36] Kanavos P, Vandoros S, Irwin R, Nicod E, Casson M. Differences in costs of and access to pharmaceutical products in the EU. Brussels: European Parliament; 2011. ⟨http://www.europarl.europa.eu/document/activities/cont/201201/20120130ATT36575/20120130ATT36575EN.pdf⟩.

[37] Vončina L, Strizrep T, Godman B, Bennie M, Bishop I, Campbell S, et al. Influence of demand-side measures to enhance renin-angiotensin prescribing efficiency in Europe: implications for the future. Expert Rev Pharmacoecon Outcomes Res 2011;11(4):469–79.

[38] Brkicic LS, Godman B, Voncina L, Sovic S, Relja M. Initiatives to improve prescribing efficiency for drugs to treat Parkinson's disease in Croatia: influence and future directions. Expert Rev Pharmacoecon Outcomes Res 2012;12(3):373–84.

[39] Arts D, Habl C, Rosian I, Vogler S. Pharmaceutical pricing and reimbursement information (PPRI): a European union project. Ital J Public Health 2006;3(1):36–41.

[40] Rosian I, Vogler S, Vander Stichele R, Larsen L, Odegaard B, Brahm A, et al. EURO-MED-STAT—monitoring expenditure and utilization of medicinal products in the European Union countries: a public health approach. Eur J Public Health 2003;13:95–100.

[41] Kristensen FB, Mäkelä M, Neikter SA, Rehnqvist N, Håheim LL, Mørland B, et al. European network for Health Technology Assessment, EUnetHTA: Planning, development, and implementation of a sustainable European network for Health Technology Assessment. Int J Technol Assess Health Care 2009;25(S2):107–16.

[42] Andert R, Schröder Y. Local payers versus global players. Soziale Sicherheit 2011;5:257–61.

[43] Dias C, Escoval A. The open nature of innovation in the hospital sector: the role of external collaboration networks. Health Policy Technol 2012;1(4):181–6.

[44] Vogler S, Zimmermann N. The potential of generics policies: more room for exploitation. PPRI Conference Report. GaBI Journal 2012;1(3–4):146–9.