



Dialogue Summary

Improving the Prescribing
Pattern and Quality of
Pharmaceutical Drugs in
Lebanon

K2P Policy Dialogue convenes key policymakers and stakeholders to capture contextual information, tacit knowledge, views and experiences including potential options to address high priority issues. K2P Policy Dialogues are informed by a pre-circulated K2P Policy Brief or Briefing Note to allow for focused discussion among policymakers and stakeholders.



Dialogue Summary

+ Included



Definition and contextualization of the priority issue



Summary of stakeholders' deliberations on options



Recommended course of action



Faculty of Health Sciences
Knowledge to Policy | K2P | Center

K2P Dialogue Summary

Improving the Prescribing Pattern and Quality of Pharmaceutical Drugs in Lebanon



Faculty of Health Sciences | Faculty of Medicine
Center for Systematic Reviews
in Health Policy and Systems Research | SPARK



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Dialogue

The policy dialogue about Improving the Prescribing Pattern and Quality of Pharmaceutical Drugs in Lebanon was held on October 14, 2016 at the Gefinor Rotana Hotel, Beirut, Lebanon. The policy dialogue was facilitated by Dr. Fadi El-Jardali, the director of the K2P Center.

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Contents

Preamble	2
Deliberations about the problem	2
Governance Arrangements	4
Financing Arrangements.....	6
Delivery Arrangements	6
Deliberations about Elements of an Approach for Addressing the Problem	9
Recommendations and Next Steps	18
Recommendations	18
Next Steps	23

Content

Preamble

The K2P Policy Dialogue, conducted on October 14, 2016, hosted 27 diverse stakeholders from multi-disciplinary backgrounds. These included representatives from:

- Ministry of Public Health (MOPH),
- Different orders and syndicates (Syndicate of Private Hospitals, Order of Physicians, and Order of Nurses),
- Pharmaceutical plants,
- Academic medical centers, medical schools, and schools of pharmacies,
- International agencies (such as the World Health Organization), national agencies and programs, and non-governmental organizations
- Insurance companies,
- Legal agenda.

The policy dialogue was facilitated by Dr. Fadi El-Jardali, the Director of the K2P Center, in the presence of Dr. Walid Ammar, the Director General of the MOPH.

Deliberations about the problem

Dialogue participants discussed the overall framing of the problem of inappropriate drug prescribing in the Lebanese healthcare system. Participants endorsed the existence of the problem and agreed on the need to focus on the many factors that are leading to the problem. Participants also acknowledged the global nature of the problem as well as its persistence in Lebanon throughout the years.

It was clarified from the start that inappropriate prescribing is not necessarily confined to physicians, but can also extend to other health care providers including pharmacists and nurses. And while the dialogue focused specifically on drug prescribing, irrational drug use also encompasses drug dispensing and drug handling. Some

Background to the Policy Dialogue

The Policy dialogue was convened in order to support a full discussion of relevant considerations (including research evidence) about a high-priority issue in order to inform action.

Key features of the dialogue were:

- 1) Addressing an issue currently being faced in Lebanon;
- 2) Focus on different underlying factors of the problem;
- 3) Focus on four elements of an approach for addressing the policy issue;
- 4) Informed by a pre-circulated K2P policy brief that synthesized both global and local research evidence about the problem, elements and key implementation considerations;
- 5) Informed by a discussion about the full range of factors that can inform how to approach the problem and possible elements of an approach for addressing it;
- 6) Brought together many parties who would be involved in or affected by future decisions related to the issue;
- 7) Ensured fair representation among policymakers, stakeholders, and researchers;
- 8) Engaged a facilitator to assist with the deliberations;
- 9) Allowed for frank, off-the-record deliberations by following the Chatham House rule: "Participants are free to use the information received during the meeting, but neither the identity nor the affiliation of the speaker(s), nor that of any other participant, may be revealed"; and
- 10) Did not aim for consensus. Participants' views and experiences and the tacit knowledge they brought to the issues at hand formed key input to the dialogue. The dialogue was designed to spark insights that can only come about when all of those who will be involved in or affected by future decisions about the issue can work through it together. The dialogue was also designed to generate action by those who participate in the dialogue and by those who review the dialogue summary.

participants suggested minor refinements to the wordings of the problem statement.

Regarding the size of the problem, participants agreed that inappropriate drug prescribing can have negative implications on patient care. A particular concern pertained to the growing problem of antimicrobial resistance in Lebanon which can lead to infections, complications and prolonged illnesses and hospitalizations, thus further adding considerable and avoidable costs to the already overburdened Lebanese healthcare system. Participants also acknowledged the prevalence of unnecessarily expensive and brand name drugs which further contribute to the high expenditures on pharmaceuticals.

Some participants pointed to the need for additional local data on the size of the problem and noted that, although evidence on inappropriate prescribing was mostly confined to antibiotics, the problem encompasses all therapeutic drugs. One participant suggested conducting a root-cause analysis to elicit physicians' perspectives on the factors that are causing them to overprescribe, in an attempt to identify bottlenecks in the system.

Deliberations highlighted several factors contributing to inappropriate drug prescribing; some participants attributed the problem to gaps in knowledge, whereby they stated that physicians may not be adequately exposed to prescription education at the undergraduate level as well as post-graduate through continuing medical education; other participants approached the problem from a bioethical perspective (i.e. motivational bias), stating that the interaction of physicians with the pharmaceutical industry may create conflict of interest and alter their prescribing behavior in favor of the promoted drug. The majority of participants, however, agreed that the problem stems from a combination of both gaps in knowledge/skills and attitudinal/motivational biases.

Some participants also highlighted the role of pharmacists in contributing to inappropriate prescribing, and shared instances where pharmacists have dispensed prescription-only drugs, including those for advanced treatments such as pneumonia, without prescriptions. The latter further reflects poor enforcement of the laws and regulations for dispensing prescription-only drugs in Lebanon.

Deliberations also addressed the role of culture where a significant number of participants stated that patients' expectations for medication play an important role in influencing prescribing behavior. There was consensus on the need to educate and raise awareness of patients about antibiotic use, specifically drug resistance.

Participants also alluded to the role of media, where it was mentioned that media does not always report news in a scientific manner, and in some cases, is creating conflict and undermining people's trust in the healthcare system. It was, however, noted that educating media on scientific reporting of news can enhance public awareness and allow media to report facts.

Participants then proceeded to discuss the underlying factors of the problem at the governance, financial, and delivery arrangement levels of the health system, respectively.

Governance Arrangements

Most participants agreed on the multi-level factors contributing to the problem at the governance arrangement level of the health system.

While there was consensus among participants that poor regulation of physician-industry interactions could contribute to inappropriate prescribing, there was less consensus on the degree to which such interactions should be regulated. Those favoring full restrictions pointed to conflict of interest with pharmaceutical industry as a major problem which can lead to overprescribing, "non-rational" prescribing, lower prescribing quality & higher prescribing costs. They also noted that industry presence is prevalent in medical schools and residency programs as well as continuing medical education activities; consequently, students graduate not perceiving medical representatives as problem. This, in turn, creates a culture of acceptance for such interactions.

Those favoring fewer restrictions stated that they do not perceive any change in their own practice as a result of interacting with pharmaceutical industry. They also admitted that some of these interactions can be beneficial to them, particularly industry-sponsored continuing medical education which they could not afford on their own. One participant mentioned that, while there seems to be an emphasis on motivational bias, it is important to realize that not all physicians may meet the required standards of practice in the first place.

Nonetheless, both groups commended the recently launched Code of Ethics on drug promotion by the MOPH as an important initiative in Lebanon and agreed on the need to ensure its proper implementation to achieve the desired outcomes.

Deliberations also raised concerns about the insufficient use of standardized clinical guidelines in health care organizations, the latter which can help promote evidence-based prescribing in Lebanon. It was indicated that guidelines are currently being implemented only at the MOPH outpatient clinics in collaboration with the Family Medicine Society at the Lebanese Order of Physicians. Even so, there are still some challenges with ensuring proper implementation, with limited capacity to oversee their implementation in physicians' clinics and offices.

The majority of participants also pointed to under-utilization of clinical pharmacy services in health care organizations as a factor that could influence appropriate drug prescribing. Although representatives from both large and small-sized hospitals were aware of the importance of clinical pharmacy services, they indicated that the absence of a law clarifying the scope of practice for clinical pharmacists has hindered proper integration into health care organizations. Further deliberations revealed the existence of a draft law on clinical pharmacy services, albeit, the draft law is still pending in Parliament. Some participants also noted that small-sized hospitals may lack the budget to hire clinical pharmacists in the first place. Furthermore, one participant stated that efforts to implement clinical pharmacy services should not be confined to hospitals, but also extend to the broader community.

Some participants also stressed on the need for regular audit and feedback, which can provide guidance to physicians and help improve their practices and prescribing behaviors. However, it was pointed out that there are limited numbers of experts and trained personnel available to establish a system for proper audit and feedback.

Another concern pertained to the quality of pharmaceuticals in Lebanon, including generics. While it was acknowledged that the problem of drug quality is neither confined to Lebanon nor to generics, it was indicated that the absence of a central lab to ensure drug quality pre- and post- registration was a main factor contributing to participants' lack of trust in the quality of drugs in Lebanon. Participants also highlighted the criticality of enhancing communication and coordination between stakeholders involved in the pharmaceutical supply chain to

make sure all parties know what their and other parties' responsibilities are. Deliberations also pointed to the unified medical prescription and its challenge with promoting generic drugs. One participant stated that the inclusion of blood tests and mammography tests in the new form is not right as it deviated the form from its intended purpose. Another participant highlighted the need to measure the impact of the unified medical prescription and look for other ways to enhance its implementation.

Financing Arrangements

Participants agreed that inappropriate prescribing and prescription fillings has contributed to the high expenditures on pharmaceuticals in Lebanon. Some participants linked this high expenditure to the re-imburement system in Lebanon whereby providers are compensated on a fee-for-service basis, thus are incentivized to overprescribe drugs, including those that are not listed in the MOPH list. One participant suggested transitioning to outcome-based payment systems where physicians will be paid according to their performance. Prescription indicators for specific classes of drugs can then be developed and used to reimburse physicians based on their degree of compliance to targets as well as for benchmarking and improvement purposes.

Participants also acknowledged some of the recent attempts by the MOPH to reduce high expenditures on pharmaceuticals. For instance, they mentioned the sharp decrease in prices of drugs that occurred in parallel to the MOPH's work on forcing a decrease in prices of brand name drugs. Participants also alluded to the potential role of the unified medical prescription in further decreasing drug prices. According to some participants, this sharp drop in prices made generic drug substitution unnecessary.

One participant also highlighted the importance of utilizing health technology assessment which has been adopted by many countries to study the cost-effectiveness of drugs prior to making decisions on whether or not to register them.

Delivery Arrangements

The issue of physician-industry interactions was re-iterated at the level of health care organizations. After sharing local evidence on the range of incentives that clinicians seemed to gain from such

interaction, some of which may be unethical, participants agreed on the need for some form of regulation. However, there was no consensus on the best approach to regulate such interactions. One of the participants highlighted the need to consider the culture in Lebanon and the role it plays when it comes to the issue of physician- industry interactions.

Participants also acknowledged that there are weak institutional policies on conflict of interest in health care organizations and schools of medicine and pharmacy. Moreover, they indicated that disclosing physician-industry interaction is not required as part of the ethical framework of health care organizations, the latter which is increasingly being promoted by healthcare accreditation programs worldwide.

Deliberations also focused on the poor awareness and education of consumers/patients on the proper use of medication. It was agreed that patients play a key role in shaping prescribing patterns, and as clients, they may choose to visit another physician if they were not convinced about not receiving medication following consultation. This is aggravated by the oversupply of physicians in Lebanon who compete for a limited supply of patients. One participant suggested conducting a baseline assessment of patient awareness and expectations for medication given their important role in overprescribing.

Deliberations

Deliberations about Elements of an Approach for Addressing the Problem

Dialogue participants discussed four elements that have been examined in the policy brief.

Element 1 › At the regulatory and policy level: Promote measures to support rational drug prescribing

This element included policies to regulate health care professionals' interactions with the pharmaceutical industry as well as policies to ensure the quality of drugs available in the market.

This section began with an overview of the recently launched Code of Ethics for drug promotion in Lebanon including its current status. It was clarified that the Code of Ethics served as a reference to marketing practice and included both monitoring and implementation mechanisms (via Ministerial Decrees). And while the code has been recently launched, it is yet to be implemented. The introduction to the Code of Ethics was followed by an overview of regulatory measures adopted by other countries to regulate clinician-industry interactions; these included a mix of disclosure, prohibition and management strategies, balanced by both self-regulation and external regulations.

The majority of participants acknowledged the presence of an influence, either direct or subliminal, of physicians' interactions with the pharmaceutical industry, especially since the ultimate goal of the latter group is to make profit. There was a unanimous agreement on the importance of the Code of Ethics as a stepping stone towards the regulation of health care providers' interactions with the pharmaceutical industry. However, participants recognized the need to strengthen the implementation process to close potential loopholes as well as avoid risk of ceremonial compliance. Importantly, they highlighted the need to ensure proper commitment of all key stakeholders to its implementation. To achieve this, participants stressed on the need to empower parties other than the MOPH, specifically the Syndicate of Hospitals, Order of Physicians, Order of Nurses and Order of

Pharmacists. It was mentioned that when national policies are developed, the opinions of Syndicates and Orders are taken into consideration; however, not all Syndicates and Orders are equally active in the implementation process. Participants also highlighted the need to empower providers to become active participants in recognizing and reporting Code breaches. To further strengthen the implementation process, it was agreed that members of the different Orders and Syndicates including all Scientific Societies belonging to the Order of Physicians should be regularly briefed about the Code of Ethics. There were also recommendations to incorporate the Code of Ethics in the curricula of medical, pharmacy and nursing students. Further deliberations led to commitment to establish a mechanism to transform the Code of Ethics into a regulation.

Beyond the Code of Ethics, some participants agreed that health care organizations, including academic medical centers and schools of medicines could take the initiative to establish their own policies to guide the interaction of students, staffs and health care providers with pharmaceutical industry. This was due to the realization of a deviance in the medical profession which has rendered self-regulatory strategies insufficient on their own. This is further backed up by findings from the literature which point to insufficient evidence on the effectiveness of codes of ethics alone in halting industries from engaging in unethical actions.

Participants were least supportive of disclosure of industry interactions to the public as a measure to enhance transparency. This is in spite of the evidence that disclosing financial ties allows patients to make informed decisions regarding their care, and may also restrain physicians from forming financial ties as well as fortify physician-patient ties. Participants held the same view even after it was revealed that there is a growing trend within accreditation programs, including JCI and Accreditation Canada, requiring disclosure of industry interactions as part of the ethical framework of health care organizations. One participant highlighted the need to consider the current context and culture in Lebanon when deciding on strategies to regulate physician-industry interactions to make their implementation successful.

Regarding the types of interactions, participants were supportive of regulating marketing activities and gifts not related to medical practice. However, they admitted that some interactions such as industry-sponsored continuing medical education can be beneficial to

them, particularly since they could not afford it on their own, and thus were less supportive of its regulation. Nonetheless, participants supported validation of continuing medical education activities as a way to regulate industry-biased information.

Regarding the quality of pharmaceuticals in Lebanon, participants re-iterated the need for a national central lab to ensure the quality of drugs prior to authorizing registration. In addition, participants highlighted the need for mechanisms to ensure regular renewal of drug registration as well as follow up on drug quality post registration. One suggestion for the latter included the establishment of a national pharmacovigilance system. One participant also alluded to the importance of Health Technology Assessment (HTA) in ensuring the cost-effectiveness and safety of drugs. Further deliberations revealed that the MOPH has been working on HTA for the past five years and has recently been granted funding to open a department for HTA within the MOPH.

Element 2» At the organizational level: Implement interventions including standardized clinical guidelines/clinical pathways, systems for prescription audit and feedback, clinical pharmacy services, and antimicrobial stewardship programs to promote appropriate prescribing

After sharing the high quality evidence on the effectiveness of organizational-level interventions to promote appropriate drug prescribing, the majority of participants agreed on the need to integrate all or most of these interventions in health care organizations. This can be achieved by including requirements for clinical guidelines, audit and feedback, clinical pharmacy services and/or antimicrobial stewardship programs in the new health care accreditation standards in Lebanon.

It was indicated that relative to community and primary care settings, hospitals are more aware of these interventions since they operate in controlled environments, thus making the implementation process easier in these settings.

There was a unanimous agreement among participants on the importance of integrating clinical pharmacy services into health care organizations. This is backed up by high quality evidence on the effectiveness of clinical pharmacy services in increasing appropriate prescribing, improving use of drugs, and enhancing patient adherence to medication. It was also mentioned that Medication Reconciliation will

become a requirement of the Lebanese hospital accreditation, which could further promote the role of clinical pharmacists as an essential component in improving appropriate prescribing and preventing adverse drug events. Some participants also pointed to the need to extend the role of clinical pharmacy to the community to enable monitoring of drug prescription and adverse reactions. However, this would require a well-defined scope of therapeutic practice and the need to differentiate between therapy management and therapeutics.

Deliberations also highlighted ongoing efforts to mandate clinical pharmacy services in hospitals with more than 50 beds. Nonetheless, it was revealed that the draft law on clinical pharmacy is still pending in Parliament. Key issues that need to be resolved include:

- Standardizing the definition of clinical pharmacy services.
- Establishing a law to clarify the scope of practice for clinical pharmacists to avoid potential conflicts with physicians' roles & responsibilities.
- Addressing the shortages in the number of clinical pharmacists, particularly in remote and rural hospitals.
- Encouraging universities to establish degrees specific to clinical pharmacy as there are specific qualifications that pharmacists should possess.
- Addressing cultural changes, particularly in regards to the line of communication between physicians and pharmacists, to empower pharmacists to communicate with physicians regarding their prescribing decisions.

After sharing evidence on the effectiveness of evidence-based guidelines in improving prescribing quality, it was agreed that even if guidelines are not developed at a national level, it is necessary that they are developed, agreed upon and implemented at the organizational level. This could be the first step towards developing national evidence-based guidelines. Some participants reflected on the effort of the Family Medicine Society at the Lebanese Order of Physician in developing clinical guidelines which are being used at MOPH dispensaries. Nonetheless, it was acknowledged that there is lack of capacity at the MOPH to visit individual physician offices to oversee the implementation of guidelines, the latter which requires additional effort and commitment from all key stakeholders. One participant suggested allocating budget to establish a national team of experts who can work

on generating local clinical recommendations to address the aforementioned gaps. It was also mentioned that academic institutions can provide their services to help the MOPH adapt international guidelines into the Lebanese context.

Participants also agreed on the importance of integrating audit and feedback into day-to-day practices. This can be further reinforced by including requirements for audit and feedback in the new hospital accreditation standards. One participant suggested establishing national benchmarks for specific classes of therapeutic drugs which could be coupled to an incentive system to encourage physicians to meet the targets. However, the need to transition to electronic medical records and electronic prescriptions was highlighted as relevant to enhance monitoring of prescribing patterns.

The important role of antimicrobial stewardship programs in optimizing antimicrobial use was also discussed during the dialogue. This was in line with the Centers for Disease Control and Prevention (CDC) recommendation that all acute care hospitals implement Antibiotic Stewardship Programs. One participant also stressed on the need to require every hospital to have its own infection control program. This can be achieved by including requirements for antimicrobial stewardship programs in the new hospital accreditation standards in Lebanon.

Participants concluded this section with the following implementation considerations:

- Teams considering organizational-level interventions need to know the scope of practice of different health care providers. This is because providers are generally unaware of each other's role and the importance of each one's role in the delivery of care. This needs to be addressed to enhance implementation of interventions.
- There is a need for inter-professional team which requires inter-professional education.
- The importance of generating reliable data is critical to measure outcome, monitor targets, and assess cost-savings.
- There should be incentives in place to encourage health care organizations to implement organizational-level interventions.

Element 3› At the health care professional level: Promote education of health care professionals about conflict of interest, problem-based training in pharmacotherapy and academic detailing to support rational prescribing

Deliberations focused on the need to educate health care professionals at both the undergraduate and post-graduate level to promote appropriate prescribing of pharmaceuticals. One participant suggested developing a guide which summarizes the key characteristics that physicians should possess once they graduate from medical school.

A significant number of participants agreed on the importance of integrating education about conflict of interest and drug promotion (in the form of seminars, role playing, and simulation of sales representative sales pitch) in the undergraduate medical curricula to promote critical thinking and enable easier detection of industry biases.

Participants also pointed to difficulty in learning pharmacology due to gaps not only at the level of clinical pharmacology, but also in the ability to translate and apply basic concepts in a clinical context. Participants highlighted the importance of adapting measures such as the ‘WHO Guide to Good Prescribing’ to help improve prescribing competency among medical students and general practitioners. To enhance the chances of success, participants agreed on the need to ensure that pharmacotherapy training in undergraduate medical curricula is problem-based, takes into account medical students' knowledge, attitudes and skills, and targets students' future prescribing requirements. Some participants also called for a progressive complexity of multi-faceted pharmacological reasoning and decision-making within respective medical curricula.

The importance of continuing medical education (CME) was mentioned again; participants agreed that CME improves physicians' knowledge, attitude, and performance as well as patient health outcomes. It can also help address the gap in knowledge transfer and help physicians retain new information beyond medical school teachings. Ideas about the need for CME to be credited in a proper manner were emphasized. Further deliberations revealed upcoming plans by the Order of Physicians to re-certify physicians as well as validate CME within scientific societies belonging to the Order of Physicians. This, in turn, would allow the Order of Physicians to rely on

CME to ensure all physicians, regardless of geographical areas, are knowledgeable.

Additional deliberations pointed to the poor standards of the Medical Colloquium in Lebanon. Furthermore, participants highlighted the need to restrict the number of medical schools in Lebanon due to the oversupply of physicians, including a surplus of physicians coming from East Europe where the standard of medical education is sometimes below average. As explained by one participant, the high number of medical students graduating will create a huge supply of practicing physicians who will be competing for limited number of job positions. This, in turn, would result in less income being generated per physician and consequently encourage the most competent physicians to leave the country. Also, those who choose to remain may be tempted to look for other ways to make additional money, including engaging in unethical relationships with the pharmaceutical industry.

Element 4» At the consumer level: Empower consumers on the proper use of medication

Participants reflected on the importance of empowering patients to promote proper use of medication. Patient empowerment is essential since it enhances shared decision-making, healthcare organizations' performance and proper use of medications. Importantly, it feeds into the new health care accreditation standards in Lebanon which now requires demonstrated shared-decision making.

There was unanimous agreement among participants on the need to educate patients and raise their awareness about the proper use of medications, expectations for medication prescription, and antibiotic resistance. One participants pointed to the role of the MOPH in educating and raising awareness of patients and the public about drug resistance and generic drugs.

After sharing evidence on the effectiveness of communication skills training that focused on improving clinician elicitation of patients' expectations, participants agreed on the importance of improving communication between patients and providers, and highlighted the need to include courses on communications skills in the undergraduate curriculum of providers. They also agreed that time-constraint should not be a barrier to communicating with patients and involving them in

decision-making since physicians play a critical role in educating and empowering their patients.

Deliberations also pointed to the need to build physician trust in prescribing generics and promoting their use by patients. One participant expressed their willingness to design a national communication strategy to promote generic drugs and address misconceptions about generics among physicians, pharmacists and patients. However, they requested backup from the MOPH and the Order of Physician in order to succeed. The importance of publicizing the MOPH directory of generic drugs and ensuring prices are updated every two years was also emphasized. One participant also stated that the best way to promote generic drug is for third party payers like National Social Security Fund (NSSF) to impose a list of generics that they are willing to cover, with patients requiring to pay any additional cost difference if they choose to buy the brand-name equivalent.

The session concluded with participants highlighting the importance of establishing rational prescribing systems to promote safe and cost-effective drugs.

Next Steps

Recommendations and Next Steps

Participants discussed and agreed on the following recommendations and next steps:

Recommendations

Recommended action	Key stakeholders involved
At the regulatory and policy level	
Reinforce and implement the Lebanese Code of Ethics on Pharmaceutical Promotions.	→ MOPH
Establish a mechanism to transform the Code of Ethics into a regulation to enable enforcing sanctions at later stages.	→ Syndicate of Private Hospitals
The implementation process can be strengthened through the following ways:	→ Order of Physicians
→ Strengthen the roles of the Syndicate of Hospitals, Order of Physicians, Order of Nurses and Order of Pharmacists to ensure they are equally active and accountable for proper implementation of the Code.	→ Order of Pharmacists
→ Empower providers to become active participants in recognizing and reporting Code breaches.	→ Order of Nurses
→ Raise awareness about the Codes of Ethics by mandating regular presentations and briefings on the Code to members of the different Orders and Syndicates including all Scientific Societies belonging to the Order of Physicians.	→ Representatives from pharmaceutical industries
→ Incorporate the Code of Ethics into the curricula of medical, nursing and pharmacy students.	→ Local and international pharmaceutical manufacturers, distributors and retailers;
	→ Universities

Recommended action	Key stakeholders involved
<p>→ Design a monitoring and evaluation plan to evaluate the effectiveness of the Code of Ethics following its first year of implementation.</p>	
<p>Develop plans to implement institutional policies guiding interactions between health care providers and pharmaceutical industry within health care organizations as well as schools of medicine and pharmacy.</p>	<p>→ Syndicate of Hospitals → Health care organizations → Selected providers → Academic institutions → Ministry of Education and Higher Education → Accreditation organizations</p>
<p>Leverage on the MOPH’s Health Technology Assessment (HTA) program to ensure cost-effectiveness and safety of drugs.</p> <p>The MOPH can consider collaborating with academic researchers/research institutes to undertake different types of researches.</p>	<p>→ MOPH → Medical Societies at the Lebanese Order of Physicians → Academic researchers</p>
<p>Establish mechanisms to ensure the quality of pharmaceuticals in Lebanon.</p> <p>This can be achieved through the following ways:</p> <p>→ Establish a central laboratory in Lebanon.</p> <p>→ Mandate renewal of drug registration on a regular basis.</p> <p>→ Establish a national system to follow up on drug quality post-registration/pharmacovigilance monitoring.</p>	<p>→ MOPH → Pharmaceutical manufacturers, distributors and retailers</p>
<p>Enhance implementation of the unified medical prescription through:</p>	<p>→ MOPH → Order of Physicians → Order of pharmacists → Syndicate of Hospitals</p>

Recommended action	Key stakeholders involved
<p>→ Eliminating requirements for diagnostic tests which deviates the form from its intended purpose</p>	<p>→ Health care organizations</p>
<p>→ Publicizing the national substitution drug list as well as issuing a list of over-the-counter drugs that can be disbursed without a prescription</p>	
<p>→ Computerizing the unified medical prescription form.</p>	
<p>Design a national communication strategy to promote generic drugs and demystify misconceptions and perceptions about the inferiority of generics relative to branded drugs.</p>	<p>→ Representatives from Pharmaceutical plants</p> <p>→ Support from MOPH and Order of Physicians</p>
<p>A representative from Pharmaceutical plants expressed their willingness to develop and implement this national communication strategy.</p>	
<p>Encourage third-party payers to adopt a list of reimbursable generic drugs where patients will be required to pay any cost difference if they choose the brand-name equivalent.</p>	<p>→ MOPH</p> <p>→ NSSF</p> <p>→ Third-party payers</p>
At the organizational level	
<p>Integrate clinical pharmacy services into health care organizations by including requirements for clinical pharmacy services in the new accreditation standards.</p>	<p>→ Order of Pharmacists</p> <p>→ Order of Physicians</p> <p>→ Syndicate of Hospitals</p>
<p>Advocate for the execution of the draft law on clinical pharmacy which is still pending in Parliament.</p>	<p>→ Healthcare Management</p> <p>→ Universities</p> <p>→ Academic</p>
<p>Enhance collaborations between the Order of Pharmacists, the Order of Physicians, the Syndicate of hospitals and academia to:</p>	<p>researchers/research institutes</p> <p>→ Accreditation organization</p>

Recommended action	Key stakeholders involved
<p>→ Standardize the definition of clinical pharmacy services.</p>	
<p>→ Clarify the scope of practice for clinical pharmacists.</p>	
<p>→ Promote degrees specific to clinical pharmacy.</p>	
<p>Conduct internal audit and feedback on providers' prescribing patterns.</p> <p>This can be achieved by including requirements for audit and feedback in the new hospital accreditation standards.</p>	<p>→ Healthcare organizations management</p> <p>→ Selected physicians</p> <p>→ Order of physicians</p> <p>→ Syndicate of Private Hospitals</p> <p>→ Accreditation organization</p>
<p>Implement evidence-based clinical guidelines in health care organizations to support decision-making about medicines.</p> <p>This can be achieved by including requirements for clinical guidelines in the new hospital accreditation standards.</p>	<p>→ MOPH</p> <p>→ Family Medicine Society at the Lebanese Order of Physician</p> <p>→ Academic institutions</p> <p>→ Syndicate of Private Hospitals</p>
<p>The development and/or adaptation of guidelines can leverage on the current efforts of the Family Medicine Society at the Lebanese Order of Physician.</p>	<p>→ Accreditation organization</p>
<p>Considerations could also be given to establish a national guideline committee to develop, support, and oversee a common, reliable, and transparent process for guideline development and adaptation. The committee could collaborate with stakeholder such as Family Medicine Society at the Order of Physicians and academic researchers.</p>	

Recommended action	Key stakeholders involved
<p>Establish antimicrobial stewardship programs in hospitals to promote appropriate drug prescribing and control antimicrobial resistance.</p>	<ul style="list-style-type: none"> → Syndicate of Hospitals → Healthcare Management → Accreditation organization
<p>This can be achieved by including requirements for antimicrobial stewardship programs in the new hospital accreditation standards.</p>	
At the professional level	
<p>Revise undergraduate curricula of medical, nursing and pharmacy students to integrate:</p>	<ul style="list-style-type: none"> → Ministry of Education and Higher Education
<ul style="list-style-type: none"> → Education about conflict of interest and drug promotion. This can be in the form of seminars, role playing, simulation of a representative sales pitch and evaluation of presentations by sales representatives 	<ul style="list-style-type: none"> → Universities → Order of Physicians → Order of Pharmacists → Healthcare organizations → World Health Organization
<ul style="list-style-type: none"> → Courses on inter-professional education with a focus on physicians and pharmacists 	
<ul style="list-style-type: none"> → Courses on communications skills training for physicians 	
<ul style="list-style-type: none"> → Courses on problem-based pharmacotherapy for physicians (e.g. ‘WHO Guide to Good Prescribing’) with progressive complexity of pharmacological reasoning and decision-making within respective curricula. 	
<p>Re-evaluate the Medicine Colloquium examination as well as establish requirements for re-certification of physicians.</p>	<ul style="list-style-type: none"> → Ministry of Education and Higher Education → Order of Physicians
<p>Considerations can be given to link re-certification to continuing medical education (CME) credits.</p>	<ul style="list-style-type: none"> → Syndicate of Private Hospitals

Recommended action	Key stakeholders involved
Validate continuing medical education (CME) through scientific societies belonging to the Order of Physicians.	<ul style="list-style-type: none"> → Order of Physicians → Syndicate of Private Hospitals
Ensure proper enforcement of CME requirements for health care providers.	<ul style="list-style-type: none"> → Healthcare organizations
At the consumer/patient level	
Conduct a baseline assessment of patients' knowledge and expectations for medication prescription in Lebanon.	<ul style="list-style-type: none"> → MOPH → Selected NGOs → Healthcare providers → Health care organizations
Design national awareness campaigns to promote appropriate use of medications, including antibiotics, drawing on the findings from the baseline assessment.	<ul style="list-style-type: none"> → Academicians and researchers
Develop patient education materials such as brochures and flyers to educate patients on the proper use of medications, expectations for prescription medication, and antibiotic resistance.	

Next Steps

It was agreed that the K2P Dialogue Summary report along with the revised K2P Policy Brief will be used by each stakeholder organization as guiding policy document and that they will communicate internally and externally with relevant bodies, agencies and department, in order to push agendas and advocate for improvements. Also, the need to operationalize key recommendations and put them into action was discussed in the dialogue.

Knowledge to Policy Center draws on an unparalleled breadth of synthesized evidence and context-specific knowledge to impact policy agendas and action. K2P does not restrict itself to research evidence but draws on and integrates multiple types and levels of knowledge to inform policy including grey literature, opinions and expertise of stakeholders.

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