

# Saudi Managed Care Pharmacy (SMCP): New Initiative System of MOH Prescriptions Dispensed Through Community Pharmacies

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## Abstract

Saudi Managed Care Pharmacy (SMCP) is one the initiative's project at King of Saudi Arabia. It is application part of Saudi Vision 2030 and could be transformation model of pharmacy practice at Ministry of Health. The project spent several years for meeting and discussions until completed idea born on the ground. Task forces committee from consultant pharmacist and headed by the author had several meeting, discussions, and comparisons with some Gulf and international development countries. The authors used modified American Pharmaceutical Association (APHA) and American College of Clinical Pharmacy Ambulatory Care business model to formulate the project. The system will save millions of dollars and do several hundreds of pharmacy jobs. The Vision, Mission, Value and goals of the program, Saudi Managed Care Pharmacy strength, weakness, opportunities, and threat (SWOT) Analysis, the requirement of SMCP, the requirement of SMCP, and Overcome the limitations in full text below. In addition to some suggested Policy and Procedures items for Managed Care Pharmacy and pharmacy practice and clinical pharmacy program for Managed Care Pharmacy. The system is potential pharmacy practice in the coming future and change overall pharmacy career in Saudi Arabia.

**Key words:** Managed Care Pharmacy, Community Pharmacy, Health Insurance, Ministry of Health, Saudi Arabia.

## INTRODUCTION

The general administration of pharmaceutical care (GAPC) at Saudi Ministry of Health (MOH) established pharmacy strategic plan for next ten years.<sup>[1]</sup> The plan consisted of six general strategic goals, more than 17 initiatives, and eighty projects. One of the initiatives was development of hospital pharmacy and primary care centers at MOH and private sectors.<sup>[1]</sup> Also; based on the New Saudi Vision 2030 with new investment and health care system privatization,<sup>[2]</sup> one of the new initiative systems is managed care pharmacy. The Academy of Managed Care Pharmacy (AMCP) defined Managed care pharmacy as “focuses on managing medication specific outcomes in a way that drives down the total cost of care and improves the overall wellbeing of the patient. “Managed care pharmacy organizations cover populations of people – pharmacists in managed care pharmacy have the ability to impact the care of millions of patients.”<sup>[3]</sup> Managed Care Pharmacy system applied in the United States of America since the 1970s with majors updating during 1990s and 2000s. Also, the system implemented



in several countries including but not limited to Canada, Australia, and United Kingdom.<sup>[4]</sup> The method performed in United Arab of Emirates but the authors not familiar with any scientific publications about the system at UAE or even any worldwide Arabic countries including Saudi Arabia. The objective of this topic to explore the new initiative system of managed care pharmacy.

## METHOD

In the period of 2012-2015, the primary author assigned as general manager of pharmaceutical care at Ministry of Health (MOH) in Saudi Arabia. During this period there was consultation letter came from Saudi Consultation Council to study of implementation dispensing of MOH prescribed medication through private community pharmacies. The author organized task discussion forced team of heading by him and membership of expert pharmacists and clinical pharmacist from GAPC pharmacists, MOH directorates at different regions, hospitals, several chain community pharmacies owner and managers, representatives from Saudi Commerce of Trade in Riyadh region. The team revised the United States of America (USA) managed care system, United Kingdom (UK) pharmacy system, United Arab Emirates (UAE) regulations. The author attended the scientific meeting organized by King Abdul-Aziz Medical City National Guard hospital about managed care system. American Society of managed care pharmacy (AMCP) participated in this session with platform presentation and workshop. The author discussed several managed care related issued with the head of society. The author met the expert pharmacists who established the system in Dubai, United Arab Emirates (UAE) with full discussion three hours. Also, during midyear clinical meeting in 2014, the author met the director of community pharmacy accreditation; the author discussed the collaborations between general administration of pharmaceutical care and the institution to establish community pharmacy standards in Saudi Arabia. In early 2015, the author and his team invited the head of community pharmacies committee at Saudi chamber and their representatives. The audience discussed how to implement the new system and with suggested recommendations. In mid-2015, the author presented the final project to higher administrators at MOH With first approval start piloting with selected primary care centers and community pharmacies. The revised all issues of Journal Managed Care Pharmacy (JMCP) from July 1995 to April 2017 search all related managed care pharmacy elements. The authors wrote the proposal based on modified American Pharmaceutical Association (APHA) and American College of Clinical Pharmacy Ambulatory

Care business model.<sup>[5,6]</sup> The system protocol approved by previous General Administration of Pharmaceutical Care, Ministry of Health, Riyadh, Saudi Arabia.

## RESULTS AND DISCUSSION

### Saudi managed care pharmacy (SMCP) Description

If the patient visits the primary care clinic and needs medication, the general practitioner prescribes the medication by entering the information through computerized physician order entry. During the tour, the patient chooses which community pharmacy get the drugs or another optional that prescription distributes electronically to the network of community pharmacies at different locations. The patient visits the near community pharmacy to get the medication. The pharmacist receives the order and reviews it if there is any discrepancies or mistakes or suggestion the pharmacist call the treating physician for that. The pharmacist should all MOH regulations, policy, and procedures for preparation medication; double-checking before delivery, and dispensing medication. The pharmacist has to apply for the medication safety program and documents any drug related problem electronically. The pharmacist has to implement patient medication counseling to all patients visit the community pharmacy. If there is refill prescription, the pharmacist calls the patient and follow up for that. Monthly report of all prescription should submit through MOH for payment or through health insurance system. The clinical pharmacist or expert pharmacist should follow up the system and monitor all prescription and receive and compliance from the patients and solve them.

### The vision of Saudi managed care pharmacy

Achieving managed care pharmacy, clinical, and electronic care, and comprehensive human resources; along with cutting back on wastage and preventing all the medication-related problems at in all over of the MOH's facilities through community or retail pharmacies. Mission of Saudi managed care pharmacy: To provide the best-managed care pharmacy and clinical care in high quality, modern technology, and the most reasonably-priced cost for the patients of the MOH's facilities through community or retail pharmacies

### Strategic Goals of Saudi managed care pharmacy:

Provide complete managed care pharmacy with safety and best practice. Develop and implement managed care pharmacy human resources. Provide comprehensive managed care pharmacy electronic services. Establish

innovation and encouragement culture at all managed care pharmacy setting. Best utilization resources based on managed care pharmacy pharmacoeconomics and health economics

### The Benefits of Saudi managed care pharmacy

There are several advantages will get once the MOH applied this system at primary care centers levels, the number of jobs will one at community pharmacies reach to 10,467.5 jobs, including clinical pharmacists, pharmacist and pharmacy technician as explored in Table 1. The community pharmacies estimated to open around 4600 jobs and health insurance companies expected to open 2,196 jobs as explored in Tables 2-4 within five years. In additions, there are several advantages to applying this system including but not limited to improve pharmacy services at MOH and private community pharmacies. For instant; the community open twenty fours provide services to patients, application of community pharmacies standard, the Labels for medications will present, start Patient Counseling Program, Medication Safety Program, Drug Information Program, Drug Utilization Evaluation, and Pharmacy TQM Pharmacy Home Delivery.

### Saudi Managed Care Pharmacy SWOT Analysis

The authors analyzed the project based on Strengths, Weakness, Opportunities, Threads rule. The authors found the following advantage point including but not limited to present of pharmacy strategic plan, present of qualify community pharmacy, pharmacy informatics infrastructure present, present of a high number of a pharmacist at the private sector, present of MOH drug formulary, and present of the support of some clinical pharmacy program. While the weakness points included MOH pharmacists does not have experiences of private pharmacy, no pharmacy managed care existed, no minimum standard of community pharmacy. No accreditation system of community pharmacy present, no enough clinical pharmacist lived, not available of CPOE for community pharmacy, community pharmacy geographic distribution is not appropriate, and no update of pharmacy law. The opportunities were the project compatible of Saudi Arabia 2030 vision, present of hospital e-prescriptions experiences, present of health insurance companies, present of Pharm D students, present of some MOH evidence base therapeutic guidelines, the possibility of medication devices dispensing. The threads were the quick Changing of MOH higher administration, today of old fashioned health care leaders, health insurance companies abundant, and changes of medications cost and prices.

The requirement of SMCP: The primary functions of a pharmacist working in managed care pharmacy system based on AMCP as the following; drug distribution and dispensing, communication with patients, prescribers and pharmacists, clinical program development, patient safety, drug benefit design or formulary management, business management, and cost management. All those functions need some policy and procedures to implement as explored in Table 5. Also, the system needs MOH primary care medication formulary, awareness program about MOH pharmacy system to all pharmacists work at community pharmacies, MOH primary care therapeutic guidelines of common diseases, the communication process between community pharmacies and general practitioners at primary care centers.

### Minimum standards of community pharmacy

Saudi managed care pharmacy should not include all community pharmacies unless there is quality management standard for accreditation derived from medication management system from Saudi Center Board for Accreditation for Healthcare Institutions (CBAHI), and community pharmacy standards from Center for Pharmacy Practice Accreditation and American Pharmaceutical Association (APHA).<sup>[7,8]</sup> Standards for the Provision of Pharmacy Medicines and Pharmacist only medicines in community pharmacy from the pharmaceutical society of Australia, quality care standards in community pharmacy from community pharmacy section at International Pharmaceutical Federation, and community pharmacy benchmarking guide from Malaysia Ministry of Health.<sup>[9,11]</sup> Also, the standards of pharmacy operation community Pharmacy from Canada, and standards for registered pharmacies in the United Kingdom.<sup>[12-14]</sup>

### The Education and training of SMCP

There are several educational and training program should be established for Saudi managed care pharmacy for an instant but not limited to the following; awareness program of Saudi managed care pharmacy for health care professionals, a residency program of Saudi managed care pharmacy, Saudi managed care Pharmacy student, and Saudi managed care assistant pharmacy student. The education Saudi managed care weekly or monthly lecture for physician, and pharmacist. Implementation of SMCP: The project started with four to five stages within 4-5 years or more until the programs installed and completed. MOH formulary starts with 32 group of medications and 195 drug line items for primary care centers as explored in Table 6 then expand accordingly. Also, steps of the project

**Table 1: Number of saved workforce job at MOH primary care centers.**

Number of pharmacy staff per each primary care center	MOH-Primary Care Centers requirement Standard	Total Pharmacy staff demand for primary care centers without managed care pharmacy	Total Pharmacy staff demand primary care section with managed care pharmacy	Total Pharmacy staff net saving of primary care centers with managed care pharmacy
Clinical pharmacist	1	2,282	188.5	2,093.5
Pharmacist	3	6,846	565.5	6,280.5
Pharmacy technician	1	2,282	188.5	2,093.5
Total	5	11,410	942.5	10,467.5

Actual number of Primary care centers before managed care pharmacy = 2,282  
The average number of primary care centers pharmacies = one pharmacy for each fifteen primary care center  
Actual number of Primary care centers after managed care pharmacy = 2,282/15= 188.5

**Table 2: Estimated managed care pharmacy human resources jobs available from community pharmacies for primary care prescriptions**

	1st year	2nd year	3rd year	4th year	5th year
Total number of prescription	34,731,151	36,467,709	38,291,094	40,205,649	42,215,931
Number of community pharmacy (7500)	1000	2000	4000	6000	7500
Total number of prescription per each community pharmacy	34,731.15	18,233.85	9,572.77	6,700.94	5,628.79
Total number of prescription monthly for each community pharmacy	2,894.26	1,519.49	797.73	558.41	469.07
Total number of prescription daily for each community pharmacy	131.56	69.07	36.26	25.38	21.32
The number of pharmacist (FTE) demand per each community pharmacy (80 prescription per duty)	1.64	0.86	0.45	0.32	0.27
The number of pharmacist (FTE) demand per each community pharmacy (120 prescription per duty)	1.10	0.58	0.30	0.21	0.18
Total number of pharmacist (FTE) demand for all community pharmacies (80 prescription per days)	1,644.47	1,726.69	1,813.02	1,903.67	1,998.88
Total number of pharmacist (FTE) demand for all community pharmacies (120 prescription per days)	1096.31	1151.13	1208.68	1269.11	1332.59
Clinical pharmacist (80 prescription per days)	328.89	345.34	362.60	380.73	399.78
Clinical pharmacist (120 prescription per days)	219.26	230.23	241.74	253.82	266.52
Pharmacist (80 prescription per days)	986.68	1036.02	1087.81	1142.20	1199.33
Pharmacist (120 prescription per days)	657.79	690.68	725.21	761.47	799.55
Pharmacy technician (80 prescription per days)	328.89	345.34	362.60	380.73	399.78
Pharmacy technician (120 prescription per days)	219.26	230.23	241.74	253.82	266.52
Health insurance Clinical pharmacist (80 prescription per days)	1,644.47	1,726.69	1,813.02	1,903.67	1,998.88
Total Pharmacy jobs (80 prescription per days)	3288.94	3453.38	3626.04	3807.34	3997.76
Total Pharmacy jobs (120 prescription per days)	2192.62	2302.26	2417.36	2538.23	2665.17

management in the number of geographic areas and period as explained in Table 7.

### Stage 1: In the first year, the following objectives may apply

1. Central Managed Care Pharmacy Committee, 2. Open Managed Care Pharmacy Committee at three regions. Start Managed Care Pharmacy Training Courses Central, 3. Start Managed Care Pharmacy Cost Reduction, 4. Start Managed Care Pharmacy Medication Safety, 5. Start Managed Care

Pharmacy Drug Information, 6. Start Managed Care Pharmacy Endocrinology, 7. Start Managed Care Pharmacy adults; Pediatrics and neonate Enteral Nutrition, 8. Start Managed Care Pharmacy Adults and Pediatrics Pharmacy Infection control.

### Stage 2: In the second year, the following objectives may apply

1. Revision of Central Managed Care Pharmacy Committee, 2. Expand the Managed Care Pharmacy Committee at seven



<b>Table 3: Managed care pharmacy human resources jobs available from health insurance companies for primary care prescriptions</b>					
	<b>1st year</b>	<b>2nd year</b>	<b>3rd year</b>	<b>4th year</b>	<b>5th year</b>
Total number of prescription	34,731,151	36,467,709	38,291,094	40,205,649	42,215,931
Number of community pharmacy (7500)	1000	2000	4000	6000	7500
Total number of prescription per each community pharmacy	34,731.15	18,233.85	9,572.77	6,700.94	5,628.79
Total number of prescription monthly for each community pharmacy	2,894.26	1,519.49	797.73	558.41	469.07
Total number of prescription weekly for each community pharmacy	723.57	379.87	199.43	139.60	117.27
Total number of pharmacist (FTE) demand per each community pharmacy	1.81	0.95	0.50	0.35	0.29
Total number of pharmacist (FTE) demand	1,808.91	1,899.36	1,994.33	2,094.04	2,198.75
<b>Managed care Pharmacy human resources jobs available from Pharmaceutical Companies for primary care prescriptions</b>					
	<b>1st year</b>	<b>2nd year</b>	<b>3rd year</b>	<b>4th year</b>	<b>5th year</b>
Total number of medications	100	200	500	700	1000
Number of community pharmacy (7500)	1000	2000	4000	6000	7500
The number of pharmacist (FTE) to follow up community pharmacy (each pharmacist follow up five medications)	20	40	80	120	150
Total number of prescription monthly for each community pharmacy	2,894.26	1,519.49	797.73	558.41	469.07
Total number of prescription weekly for each community pharmacy	723.57	379.87	199.43	139.60	117.27
Total number of medications weekly for each community pharmacy	1447.14	759.74	398.86	279.2	234.54
Total number of pharmacists weekly for each community pharmacy	289.43	151.95	79.77	55.84	46.91

<b>Table 4: Estimated managed care pharmacy human resource jobs available from community pharmacy for outpatient prescriptions</b>					
	<b>1st year</b>	<b>2nd year</b>	<b>3rd year</b>	<b>4th year</b>	<b>5th year</b>
Total number of prescription	11,532,472.70	12,109,096.34	12,714,551.15	13,350,278.71	14,017,792.64
Number of community pharmacy (7500)	1000	2000	4000	6000	7500
Total number of prescription per each community pharmacy	11,532.47	6,054.55	3,178.64	2,225.05	1,869.04
Total number of prescription monthly for each community pharmacy	961.04	504.55	264.89	185.42	155.75
Total number of prescription daily for each community pharmacy	43.68	22.93	12.04	8.43	7.08
The number of pharmacist (FTE) demand per each community pharmacy (80 prescription per duty)	0.55	0.29	0.15	0.11	0.09
The number of pharmacist (FTE) demand per each community pharmacy (120 prescription per duty)	0.36	0.19	0.10	0.07	0.06
Total number of pharmacist (FTE) demand for all community pharmacies (80 prescription per days)	546.05	573.35	602.01	632.12	663.72
Total number of pharmacist (FTE) demand for all community pharmacies (120 prescription per days)	364.03	382.23	401.34	421.41	442.48
Clinical pharmacist (80 prescription per days)	109.21	114.67	120.40	126.42	132.74
Clinical pharmacist (120 prescription per days)	72.81	76.45	80.27	84.28	88.50

Pharmacist (80 prescription per days)	327.63	344.01	361.21	379.27	398.23
Pharmacist (120 prescription per days)	218.42	229.34	240.81	252.85	265.49
Pharmacy technician (80 prescription per days)	109.21	114.67	120.40	126.42	132.74
Pharmacy technician (120 prescription per days)	72.81	76.45	80.27	84.28	88.50

**Table 5: Some Suggested Policy and Procedures items for Managed Care Pharmacy**

S.no	Items	Work
	<b>Drug Distribution and Dispensing</b>	<b>Communication with Patients, Prescribers, and Pharmacists</b>
1	Managed care pharmacy medication order	Managed care pharmacy continuing education and training
2	Managed care pharmacy verification of prescription orders	Managed care pharmacy new staff orientation
3	Managed care pharmacy extemporaneous pharmaceutical clinical compounding	Managed care pharmacy patient satisfaction
4	Managed care pharmacy patient's medications	Managed care pharmacy pharmacist job satisfaction
	<b>Clinical Program Development</b>	<b>Patient Safety</b>
1	Managed care pharmacy Drug Information Unit	Managed care pharmacy handling look-alike sound-alike medications
2	Managed care pharmacy medicine management on the advanced life support (ALS)	Managed care pharmacy administration recalled, discontinued, & damaged medications
3	Managed care pharmacy medication therapy management	Managed care pharmacy high-alert medications' guidelines
4	Managed care pharmacy immunization program	Managed care pharmacy identifying & handling expired medications
5	Managed care pharmacy drug utilization review	Managed care pharmacy management of adverse drug reaction
6	Managed care pharmacy specialties	Managed care pharmacy medication errors reporting
		Managed care pharmacy patient drug allergy
		Managed care pharmacy drug quality reporting system
	<b>Drug Benefit Design or Formulary management</b>	<b>Business Management</b>
1	Managed care pharmacy non-formulary drug requests	Managed care pharmacy workload statistics
2	Managed care pharmacy physician's prescribing Privileges	Managed care pharmacy purchasing system
3	Managed care pharmacy using formulary drugs for unapproved Indications	Managed care pharmacy inventory management system
4	Managed care pharmacy out-of-stock formulary medications	Managed care pharmacy pharmaceutical sales representatives
5	Managed care pharmacy narcotic & controlled drugs policy and procedure	Managed care pharmacy handling free medical samples
	<b>Cost Management</b>	
1	Managed care pharmacy pharmacoeconomics system	
2	Managed care pharmacy Therapeutic guidelines	
3	Managed care pharmacy cost avoidance	
4	Managed care pharmacy pharmacist interventions	

Regions, 3. Update of Managed Care Pharmacy Training Courses Central, 4. Review of Managed Care Pharmacy Cost Reduction, 5. Report of Managed Care Pharmacy Medication Safety, 6. Review of Managed Care Pharmacy Drug Information, 7. Review of Managed Care Pharmacy Endocrinology, 8. Review of Managed Care Pharmacy Pediatrics and neonate Enteral Nutrition, 9. Review of Pharmacy Adults and Pediatrics Pharmacy Infection control, 10. Start Managed Care Pharmacy care DUE, 11.

Start Managed Care Pharmacy Antimicrobial stewardship, 12. Start Managed Care Pharmacy Pharmacoeconomics, 13. Start Managed Care Pharmacy Pulmonary Diseases.

### Stage 3: In the third year, the following objectives may apply

1. Revision of Central Managed Care Pharmacy Committee, 2. Expand the Managed Care Pharmacy Committee at ten Regions, 3. Update of Managed Care Pharmacy Training

Sl.no	Drug Class	Number of medications	No	Drug Class	Number of medications
1	Analgesic-Antipyretics and Antimigraine drugs	6	17	Diuretics	3
2	Anesthetics (Local)	2	18	Antiasthmatics	8
3	Antacid	4	19	Antidiarrhoeals	1
4	Antipeptic ulcer drugs	2	20	Antiemetics	2
5	Antiamoebics drugs	3	21	Laxatives	6
6	Antibacterial	13	22	Antispasmodics	3
7	Antivirals	2	23	Antihaemorrhoids	2
8	Anthelmintics	3	24	Anti-hyperuricemia drugs	3
9	Antimalarials	6	25	Antihistamines	5
10	NDAIDs	8	26	Cough Syrup	3
11	Antiepileptics	4	27	Drug for skin conditions	21
12	Antidepressant and Antipsychotics drugs	5	28	Eye, Ear & Nose drugs	12
13	Antidiabetics	18	29	Obstetrical and Gynecological conditions	6
14	Antithyroid drugs and Thyroid Hormones	3	30	Antiseptics & Disinfectants	3
16	Cardiovascular diseases drugs	16	31	Vitamins, Minerals, & Nutritional supplements	14
17	Lipid lowering drugs	2	32	Miscellaneous	6
18	Total number of medications	195			

Courses Central, 4. Report of Managed Care Pharmacy Cost Reduction, 5. Report of Managed Care Pharmacy Medication Safety, 6. Revision of Managed Care Pharmacy Drug Information, 7. Review of Managed Care Pharmacy Endocrinology, 8. Review of Managed Care Pharmacy Pediatrics and neonate Enteral Nutrition, 9. Review of Pharmacy Adults and Pediatrics Pharmacy Infection control, 10. Review of Managed Care Pharmacy care DUE, 11. Managed Care Pharmacy Antimicrobial stewardship, 12. Review of Managed Care Pharmacy Pharmacoeconomics, 13. Review of Managed Care Pharmacy Pulmonary Diseases, 14. Start Managed Care Pharmacy Pain Management, 15. Start Managed Care Pharmacy Therapeutic Drug Monitoring and Pharmacokinetics.

#### **Stage 4: In the fourth year, the following objectives may apply**

1. Revision of Central Managed Care Pharmacy Committee,
2. Expand the Managed Care Pharmacy Committee at ten Regions,
3. Update of Managed Care Pharmacy Training Courses Central,
4. Report of Managed Care Pharmacy Cost Reduction,
5. Report of Managed Care Pharmacy Medication Safety,
6. Revision of Managed Care Pharmacy Drug Information,
7. Review of Managed Care Pharmacy Endocrinology,
8. Review of Managed Care Pharmacy Pediatrics and neonate Enteral Nutrition,
9. Review of Pharmacy Adults and Pediatrics Pharmacy

Infection control, 10. Review of Managed Care Pharmacy care DUE, 11. Review of Managed Care Pharmacy Antimicrobial stewardship, 12. Review of Managed Care Pharmacy Pharmacoeconomics, 13. Review of Managed Care Pharmacy Pulmonary Diseases, 14. Review of Managed Care Pharmacy Pain Management, 15. Review of Managed Care Pharmacy Therapeutic Drug Monitoring and Pharmacokinetics, 16. Start Managed Care Pharmacy Hematology and Anticoagulation, 17. Start Managed Care Pharmacy Cardiology.

#### **Stage 5: In the fifth year, the following objectives may apply**

1. Revision of Central Managed Care Pharmacy Committee,
2. Expand the Managed Care Pharmacy Committee at ten Regions,
3. Update of Managed Care Pharmacy Training Courses Central,
4. Report of Managed Care Pharmacy Cost Reduction,
5. Report of Managed Care Pharmacy Medication Safety,
6. Revision of Managed Care Pharmacy Drug Information,
7. Review of Managed Care Pharmacy Endocrinology,
8. Review of Managed Care Pharmacy Pediatrics and neonate Enteral Nutrition,
9. Review of Pharmacy Adults and Pediatrics Pharmacy Infection control,
10. Review of Managed Care Pharmacy care DUE,
11. Review of Managed Care Pharmacy Antimicrobial stewardship,
12. Review of Managed Care Pharmacy Pharmacoeconomics,
13. Review of Managed

**Table 7: Implementations steps of Saudi managed care pharmacy system**

S. No	Task	Months											
		1	2	3	4	5	6	7	8	9	10	11	12
1	Organize Consultation Committee	■											
2	Communicate with AMCP USA	■											
3	Communicate with USA, UK, Canada, and Australian Universities famous in managed care pharmacy system	■	■										
4	Make a workshop awareness with AMCP USA, USA, UK, Canada, and Australian Universities famous in managed care pharmacy system			■									
5	Setup the Budget of the Project and approval			■									
6	Visit USA, UK, Canada, Australia and UAE to see the practical experiences of managed care pharmacy system		■	■									
7	Complete the SMCP Project			■									
8	Final Approval to start initial step			■									
9	Start with very simple pharmacy and patients at one geographic location				■	■							
10	Review pilot trial						■						
11	Expand to one geographic area							■	■				
12	Review the 2nd trail									■	■		
13	Expand to Five geographic areas									■	■		
14	Review the 3rd trail									■	■		
15	Expand to ten to fifteen geographic areas											■	■
16	Review the 4th steps												
17	Expand to fifteen to twenty geographic areas												
18	General revision of the system at all location in Saudi Arabia												

Care Pharmacy Pulmonary Diseases, 14. Review of Managed Care Pharmacy Pain Management, 15. Review of Managed Care Pharmacy Therapeutic Drug Monitoring and Pharmacokinetics, 16. Review of Managed Care Pharmacy Hematology and Anticoagulation, 17. Review of Managed Care Pharmacy Cardiology, 18. Start Managed Care Pharmacy Emergency, 19. Start Managed Care Pharmacy Neurology and Psychiatry, 20. Start Managed Care Pharmacy Non-sterile Clinical compounding

### The limitations and solutions:

There are some limitation or controversy issues to limit program implementations; for instances the cost of medication. MOH regularly buy the medicine through local or Gulf tender and get very low prices, once start the program may lead to increase the drug costs. To solve this problem either to make a meeting with large pharmaceutical companies to discuss this issues and request from that the medications quantities will not be changed but may increase

in the future this encourage the drug companies to keep prices without any changes or may costs reduction. The second solution is NUPCO purchase the medication on behalf of MOH then redistribute to community pharmacies again with acceptable cost but lower than the registered prices, this will get revenue to MOH and keep drug cost without any changes. Other limitations come from the patient. May the patient want the specific brand name of the medication or specific companies? This problem should solve by community pharmacy either accept the request of the patient and give a special discount or refuse. Also, the patient may get the patient and resell again to another community pharmacy. This problem difficult to control even without managed care pharmacy system but the community can solve this issue with release private bar coding number related to each community pharmacy.

### CONCLUSION



Saudi Managed Care Pharmacy is one the initiatives system comparable with Saudi Vision 2030. The system will save the high cost of MOH budget and available thousands of pharmacy career jobs. Also, to expand pharmaceutical care overall Saudi population led to prevent medication misadventure and improve patient quality of life.

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### CONFLICT OF INTEREST

None

### ABBREVIATION USED

SMCP: Saudi Managed Care Pharmacy; MOH: Ministry of Health; GAPC: General Administration of Pharmaceutical Care; AMCP: American Society of managed care pharmacy; APHA: American Pharmaceutical Association; CBAHI: Saudi Central Board of Accreditation for Heath Care Institutions.

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