Supplementary File

Appendix 1.

	PubMed	
Set	Strategy	Results
#1	Quality [Title/Abstract]	1.196.074
#2	"Primary Healthcare"[Title/Abstract] OR "PHC"[Title/Abstract] OR "Primary Care"[Title/Abstract] OR "Primary health services"[Title/Abstract] OR "Basic Healthcare"[Title/Abstract]	141.682
#3	"Assessment"[Title/Abstract] OR "Evaluation"[Title/Abstract] OR "Monitoring"[Title/Abstract] OR "Measurement"[Title/Abstract] OR "Improvement"[Title/Abstract] OR "Indicator"[Title/Abstract] OR "Index"[Title/Abstract]	4.442.505
#4	"pattern"[Title/Abstract] OR "framework"[Title/Abstract] OR "model"[Title/Abstract]	3.290.764
#5*	#1 AND #2 AND #3 AND #4	2.820
	*Filters activated: English	

Scopus	
Strategy	Results
(TITLE-ABS-KEY (quality) AND TITLE-ABS-KEY ("Primary Healthcare" OR "PHC" OR "Primary Care" OR "Primary health services" OR "Basic Healthcare") AND TITLE-ABS-KEY ("Assessment" OR "Evaluation" OR "Monitoring" OR "Measurement" OR "Improvement" OR "Indicator" OR "Index") AND TITLE-ABS-KEY (pattern OR framework OR model)) AND (LIMIT-TO (LANGUAGE, "English"))	7.934

WOS	
Strategy	Results

TOPIC: (quality) AND TOPIC: ("Primary Healthcare" OR "PHC" OR "Primary Care" OR "Primary health services" OR "Basic Healthcare") AND TOPIC: ("Assessment" OR "Evaluation" OR "Monitoring" OR "Measurement" OR "Improvement" OR "Indicator" OR "Index") AND TOPIC: (pattern OR framework OR model)

5.909

Refined by: LANGUAGES: (ENGLISH)

Timespan: All years. Indexes: SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, BKCI-S, BKCI-SSH, ESCI.

Appendix 2.

NO.	WHO(EMRO)	OECD	CANADIAN	USA	Australia	EU	Iran	Austria	Japan
Nutrition and obesity		Obesity prevalence	-Dietary advice in PHC -Overweight rate -Fruit and vegetable consumption rate	-Children ages 2-17 who received advice from a doctor or other health provider about healthy eating - Glucose in past year in patients with a diagnosis of obesity		-To what extent do GPs provide the following individual counselling if this would be needed in the practice population? Counselling in case of obesity	-% of population, age 30 to 59 years old with overweight and obesity who received consultation services for behavioral change		

		Diabetes prevalence	 Glycaemia control for diabetes Screening for modifiable risk factors in adults with diabetes Screening for visual impairment 	- Adult's age 40 and over with diabetes who had all 3 recommended services for diabetes in the past year -Hospital admissions for lower extremity				Chronic disease management (annual eye examination in
Diabetes	% of Diabetes mellitus patients who had fundus		Percentage of Population, Age 20 And Older, With Diabetes Mellitus Who Had An Eye Exam	Adult's age 40 and over with diabetes who had all 3 recommended services for diabetes in the past vear		Crude percentage of diabetic population aged >25 years with eye fundus inspection in the	% of registered diabetic patients with fasting blood sugar controlled at last 2 follow up visits % of population. age 30	
	% of Diabetic patients with HbA1C less than 7%		Percentage of Population, Age 20 And Older, With Diabetes Mellitus Who Received Testing for All of the Following:	- Most recent HbA1c <7% - HbA1c measure in 6 months - Diabetes Electronic Composite Measure . Diabetes Patients with HbA1c Poor Control	-The percentage of patients with diabetes whose last recorded HbA1c within the previous 12 months	Diabetes care: Crude percentage of diabetic population aged >25 years with HbA1C > 7, 0%.	% of diabetic people with HbA1C less than 7%	
AIDS		HIV screen for prenatal patients		- New AIDS cases per 100,000 population age 13 and over -Adult HIV patients		To what extent do GPs carry the following preventive	% of risk factors Assessment for AIDS in The population covered.	

Safe condition			- PHC workplace safety - PHC workplace injuries		Occupational health and safety	Safety of the staff and patients - Smoking is not allowed in the practice The practice has: A sterilizer or an autoclave, A container for used equipment, A leak proof container	- % compliance with Hand Hygiene guidelines	
Vacc		- Adolescent immunization		- Tetanus immunization in past 10 years for patients ≥12 years - Influenza		Preventive care: To what extent do GPs carry the following preventive activities?		
Vaccination	% of health facility staff immunized for	- Hepatitis B immunization for high-					% of health facility staff immunized for Hepatitis B (3 doses).	

-Pneumococcal vaccination for high-risk groups -Children 19-35 months who received all recommended vaccines -Children 19-35 months who received all recommended vaccines -Child immunization -Child immunization		against Influenza
		% of high risk group immunized
		Influenza vaccination for high-risk
		- Influenza immunization, 65+
		- Influenza vaccination for high-risk groups
Childhood immunization coverage rates by		
-Mother and child & Reproductive health care: To what extent are GPs (or practice nurses) involved in infant vaccination on: Diphtheria, tetanus, pertussis, measles,		-To what extent do GPs carry the following preventive activities? Influenza vaccination for high-risk groups
% of under 23 months children immunized according to the national protocol	% of under 23 moi immunized accor national pro	
Pneumococcal vaccination Infant immunization	Pneumococcal v	

	% of pregnant women fully vaccinated against tetanus	Cong	- Emer	- Tetanus immunization in past 10 years for patients ≥12 years	Perce Wyor (MT)	Preventive care: To what extent do GPs carry the following preventive activities? Immunization for tetanus, Allergy vaccinations, Influenza vaccination for high-risk groups -Mother and child & Reproductive		
Chronic he		- Congestive heart failure readmission rate	- Emergency department visits for congestive heart failure		Percentage of patients who have had a Myocardial Infarction (MD in past 12 months			
Chronic heart disease				Heart failure patients who received recommended hospital care for heart failure (evaluation of left ventricular ejection		Treatment and follow-up of diseases: To what extent will patients with the following diseases	% of registered NCD patients with blood pressure recorded twice at last follow up visit	management (lifestyle

	- Treatment of congestive heart failure	- Heart failure patients who received recommended hospital care for heart failure (evaluation of left ventricular ejection fraction and prescribed ACE inhibitor or ARB at discharge, if indicated.		Treatment and follow-up of diseases: To what extent will patients with the following diseases receive treatment / follow up care from their GP? congestive		
% of registered NCD patients with 10 years cardiovascular risk recorded in past 1 year	Percentage of Population, Age 50 To 74, With Established Diabetes Mellitus Who Had an Acute Myocardial Infarction, Had an Above- Or		Percentage of patients who have had a Myocardial Infarction (MI) in past 12 months who are on a beta blocker -Total number of natients on the coronary heart disease		% of registered NCD patients age 30 and older with 10 years' cardiovascular risk recorded in past 1 year	

Respiratory/infectious disease	
- Asthma control	- Treatment of acute myocardial infarction
- Controller prescription for children 5 to 17 years old with asthma in past year - Controller prescription for adult asthma patients in past year -Completion of tuberculosis therapy.	- Patients with acute myocardial infarction (AMI) who received recommended hospital care for AMI (administered aspirin and beta blocker within 24 hours of admission.
-Number and proportion of general practices using a practice register/recall/reminder system to identify patients with asthma for review and appropriate action. -Division takes a systematic approach to support	Percentage of patients who have had a Myocardial Infarction (MI) in past 12 months who are on a beta blocker
Percentage of individuals with COPD that have had a follow-up visit in primary care during the last year.	
% of individuals with COPD that have had a follow-up visit and treatment during the last year. % TB screening in high risk groups	
Chronic disease management (peak expiratory flow rate readings in asthma)	

	% of registered hypertension patients with BP <140/90 at last 2 follow up visits	Blood pressure measurement	-Percentage of Population, Age 20 And Older, With Hypertension for A Duration of at Least 12 Months, Who Reported Having Blood Pressure	- BP* measure in 6 months - Most recent BP <130/80 mm Hg - Adults: BP measure in 2 years - HTN patients with BP measure in 6 months - HTN diagnosis for 3 BPs >140/90 mm Hg in 1	Percentage of patients with diabetes whose last recorded Blood Pressure (BP) reading was less than or equal to 130/80 mmHg within the previous 12	Crude percentage of diabetic population aged >25 years with blood pressure above 140/90 mm Hg measured in the last 12 months.	% Hypertension patients with Initial laboratory investigations	
Hypertension		Re measurement of blood pressure for		- HTN patients with most recent BP <140/90 mm Hg -Blood pressure monitoring			% of registered hypertension patients with BP < 140/90 at last 2 follow up visits	
ension	% of registered NCD patients with blood	Blood pressure measurement		Heart disease and stroke -Adults: BP measure in 2 years	Percentage of patients with CHD whose last recorded Blood Pressure (BP) within the last 12 months was less			
	% Hypertension patients with Initial laboratory investigations	- Initial laboratory investigations for hypertension	- Screening for modifiable risk factors in adults with hypertension	- Patients with DM* and HTN* with ACE inhibitor or ARB prescription in 1 year - HTN patients with antiplatelet prescription in 1 year	The proportion of clients with complete care plans that are in accordance with agreed clinical onidelines			

Community participation, coordination	Population coverage	Populati
		% of catchment population registered with
- Community input for PHC planning	- Population with a regular PHC provider, - Percentage of Population, Age 12 And Older, Who Reported Having	- PHC client/patient registries for chronic conditions
	 Average 3rd Next Available Appointment in PC Clinics. Urgent Care Utilization Rate 	
-The Division's programs are well informed by relevant community input, - Key priorities to address needs within the Divisions boundaries have been identified		Number and proportion of general practices registered in the General Practice Immunization
	-The practice has an appointment system, -All patients receiving regular/repeat medications	Population/patients registered with a general practitioner
		% of catchment population who received at least one basic visit
the percentage of positive answers to the question 'Does the clinic's staff answer properly when you		

1	- Client/patient participation in PHC treatment planning	Average Effective Partnership Rating	The proportion of clients who have been invited to contribute to quality improvement activities based on the results of the patient experience		- Participation in quality circles - Amount of information about goals	
	 Client/patient participation in PHC clinical decision making 		The proportion of clients who have been invited to contribute to quality improvement activities based on the results of			
			The Division's collaborations with key stakeholders influence local primary health care policy, nlanning and service delivery	-Stakeholder involvement in PC policy development: Do organizations of stakeholders contribute to PC policy		

on	Customer and staff satisfaction	Screening health risks
Staff satisfaction rate	Patient satisfaction rate (%)	
- PHC provider satisfaction with use of professional skills- PHC provider satisfaction with work life balance	- Client/patient satisfaction with PHC providers	- Health risk screening in PHC
	- Adults who sometimes or never received patient centered care (whose health providers sometimes or never listened carefully, explained things clearly, respected what they had to say, and spent enough time with them)	
	The proportion of regular clients who are very satisfied with specified elements of their patient experience within the previous 12 months (using a standard patient experience instrument)	-The number of health assessments provided to at risk 45-49 year old patients within the Division (compared to the total population aged 45-49 years in the Division)
	Patient satisfaction: % of patients who are satisfied with: Their relation with their GP/PC physician; with the available time during consultations with their GP/PC physician; their trust in their GP/PC physician; the	
Staff satisfaction rate	Customer satisfaction rate (%)	% children age 6 to 9 months old screened for anemia % of women aged 30–59 yrs. who had at least 1 Pap test in the past 5 yrs.
Satisfaction with the doctor's communication		
	For all patients, the percentage of positive answers to the question 'Does the clinic's staff answer properly	

Maternal and child health			
% of under 5 children that had weight and			
- Low birth weight rate			
	- Satisfaction with wait times for routine PHC	- Satisfaction with wait times for urgent, non-emergent PHC	- Client/patient satisfaction with available PHC services
1,000 live births, birthweight <1,500			1
- Infant mortality per			
	The proportion of regular clients who are very satisfied with specified elements of their natient experience within	The proportion of regular clients who are very satisfied with specified elements of their patient experience within the previous 12 months (using a	
	Patient satisfaction with access of PC in general: Patients that find it easy to reach and gain access to GPs.	Patient satisfaction with access of PC in general: Patients that find it easy to reach and gain access to GPs.	Patient satisfaction: % of patients who are satisfied with: Their relation with
for the first six months			
exclusively breastfed			
% of newborns who are			

		- Hospital admissions for pediatric gastroenteritis per 100,000 population ages 4 months-17 years		The number of hospital admissions for people with the following conditions per 100.000 population per year diagnosis of			
	Gonorrhea/chlamydia rates		-Women 16 to 25 years old screened for chlamydia in 1 year			% of women who delivered and received at least once postnatal care within the first 6 weeks, % of pregnant women received at least 6 ANC, % of pregnant women who received health education about: nutritional care, anemia, sanitation	
Cancer screening		- Breast cancer screening	- Rate of breast cancer incidence per 100,000 women age 40 and over diagnosed at advanced stage - Women age 40 and over who reported they had a mammogram		Breast cancer screening: % of women aged 52-69 yrs who had at least 1 mammogram in the past 3 yrs.		

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Quality Improvement	Adverse Event	
	Number of adverse events reported (immunization/medication)	The proportion of patients reporting to PHC per month who are being managed for mental
- Implementation of PHC clinical quality improvement initiatives	- Treatment for illicit or prescription drug use problems	
	- Persons age 12 and over who needed treatment for any illicit drug use and who received such treatment at a specialty facility in the past year - Avoiding the use of drugs always	
-Quality improvement activities,	The proportion of clients whose known adverse drug reactions and medication allergies are documented in the service's natient health record	-Number and proportion of general practices using a practice register/recall/reminder system to identify those patients who have participated in a GP Mental Health Care Plan with their
- Community health surveys: Are community health surveys conducted to		
	Number of adverse events reported (immunization/medication)	
transfer qualityCommunication		
	Side effect monitoring after changing medication for chronic disease	

Health Information Management		- Maintaining medication and problem lists in PHC Systems	The proportion of regular clients with a comprehensive health summary, including information on allergies, current/past medical history, medications and risk factors, which was undated	For every encounter the following are recorded: Reason why the patient presented; A defined problem/diagnosis; Data supporting the defined problem/diagnosis; A treatment plan; If medication is	- Information Management System - Information on treatment from the patient's point of	For all patients, the percentage of positive answers to the question 'Do you have a record of current percentage percentage the physical patients' and the percentage of positive answers to percentage and patients' and the physical patients' and the percentage of positive answers to percentage and patients' and the percentage of positive answers to percentage and patients' and the percentage and patients' and the percentage of positive answers to percentage and patients' and the percentage and percentage a
ent	 	Percentage of Primary Health Care (PHC) Providers Who Use Electronic Systems To Complete Their Professional Tasks.		- The practice has a computerized medical record system - The computer is used for: Patient medical registration; Referral letters		For a patient who is referred to a specialist, the percentage of positive answers to the question 'Did the physician of the clinic prepare a referral letter to

- Information about prescribed medication by PHC providers	- Use of information and communication technology modalities in PHC organizations
	Health Information Technology: Focus on Electronic Health Records
-The proportion of service referrals that contain appropriate identifying, clinical and contact information and a current medication list, -The proportion of clients whose medication list has been reconciled against the service's patient health	-The number and proportion of general practices within the Division using electronic register/recall/reminder systems to identify patients with a chronic disease
For every encounter the following are recorded: Reason why the patient presented; A defined problem/diagnosis; Data supporting the defined problem/diagnosis; A treatment plan; If medication is	System to process information - The practice has procedures that ensure incoming clinical information is seen by the patient's GP before filing in the patient's
	With Maritan in the release. But
	For a patient for whom a referral letter was prepared, all of the following information

% of Individual patient file with unique identifier within the health care facility	Percentag Informa Resou		Items normally recorded in patients' Epidemi medical file for every encounter (reason of visit; problem and/or diagnosis; supporting data; treatment plan;		
	Percentage of Primary Health Care (PHC) Organizations That Used Information On the Composition of Their Practice Population to Allocate Resources For Programs And Services. (need based planning)		Epidemiological data set: Are clinical patient records from GP/PC used at regional or local level to identify health needs or priorities for health policy?		

Health Worker Empowerment	% of Staff who have attended continuous training about quality and patient safety during last year	- Professional development for PHC providers and support staff		-General practitioner qualifications -Clinical staff qualifications -Training of staff who have non-clinical roles -The proportion of the service's eligible workforce who have	% of (re)trained PC professionals (other than general practitioners, physiotherapists, pharmacists, dentists or midwives) active in their profession of training	% of Staff who have attended continuous training about quality and patient safety during last year		
Referral System	% of appropriate (upward) referrals during last 6 months (by specific	-Recommendation of PHC provider to others Collaborative care with other health care organizations	Integration of information -Provider asking about medications and treatments from other doctorsElectronic exchange of medication information.	INTEGRATION between GPs and Hospitals: -Division collaborates with relevant hospitals to facilitate local service planning timely and	-System for communication/sharing information with colleagues and other health care providers - The practice has an up-to-date directory of	% of appropriate (upward) referrals during last 6 months (by specific conditions) with appropriate feedback	- specialist consultations with referral	

	 Access to interdisciplinary PHC organizations Use of standardized tools for coordinating PHC 		-Gatekeeping system: Do patients need a referral to access the following medical, paramedical and nursing disciplines? Gynecologist/obstetrician, Pediatrician,		
% of appropriate (upward) referrals during last 6 months (by specific conditions)		 -Continuity of comprehensive care -Continuity of the therapeutic relationship -Consistent approach -System for follow up of tests and results	-Referral system: To what extent are GPs using referral letters (including relevant information on diagnostics and treatment performed) when they refer to a medical		

Patient Rights	% of patients aware about Patients' rights and responsibilities	- Client/patient satisfaction with PHC privacy practices, - Point of care access to PHC client/patient health information - Language barriers when communicating with PHC	Right of patient	-Physical conditions conducive to confidentiality and privacy -Respectful and culturally appropriate care -Patient feedback,	-Medical records, and other files containing patient information, are not stored or left visible in areas where members of the public have unrestricted accessThe conversation at the reception desk cannot be heard by other	% of patients aware about Patients' rights and responsibilities		For a patient who was issued a primary doctor's letter of opinion and was certified to require long-term care incurance the name of the current care manager.
Team Working		- PHC physicians working in solo practice	Effective PC Team Ratio		Shared practice: % of PC practices that are: Single handed (solo); 2 or 3 GPs in the same building without		- Conducting a team survey - Participation in the team	
		- PHC physicians working in group			All staff are invited to participate in team			

Financing and Health Expenditure			The organization has systems for written financial reporting to the Board, that include variance between actual expenditure and budget, financial the effective discharge of governance	The practice produces an annual financial report, which includes all income and expenditure The responsibility for financial management in the practice is clearly defined		
			Board te to support governance	financial ice is clearly		
		- Average per capita PHC operational expenditures		Primary care expenditure:- Total PC expenditure: Total expenditure on PC as % of total expenditure on health		

		- PHC provider remuneration method		an independent committee established to provide assurance on financial, remuneration and other matters to the Board	Remuneration system of PC workforce: -Remuneration system for salaried GPs: How are salaried GPs paid? Flat salary; 2. Salary related to the number of their patients; 3. Salary related to both the number of their patients and indicators of performance, -		
		- Average PHC provider income by funding model			Income of GPs: What is the (estimated) gross annual		
Medication Prescription	% of prescriptions that include antibiotics in		- Visits where antibiotics were prescribed for a diagnosis of common cold per 10.000		Antibiotics consumption: The defined daily doses of antibiotics use in	% of prescriptions that include antibiotics in health centers and health posts	

Lipid Disorders		- HDL measure in 1 year, - LDL measure in 1 year, - Most recent LDL <100 mg/Dl, - Most recent HDL >45 mg/Dl, - CHD* patients with measure of LDL in 1 year, - Atherosclerosis patients with measure of LDL in 1 year, - Atherosclerosis patients with most recent LDL <100	Number and proportion of patients with diabetes on practice register/recall/reminder systems whose most recent total cholesterol in the past 12 months was: less than 4.0 mmol/I · 4.0 mmol/I or more: or not measured	-To what extent do GPs carry the following preventive activities? Cholesterol level checking -Diabetes care: Crude percentage of the diabetic population aged >25 with cholesterol 5>mmol/ll.		
Accreditation program			The organization is accredited by a recognized accreditation model	-Certification of providers: Do formal requirements exist for physicians (such as GPs/Family doctors) to work		
Telephone consulting			Telephone and electronic advice	-Patients of the practice have the opinion that they can contact the practice easily by		

Medication and equipment Sufficiency	Pregnancy care	Out-of-hours care	Home visit
	% of pregnant women with		
	- First visit in first trimester		
Decrease Inappropriate Antibiotic Prescribing	- Pregnant women receiving prenatal care in first trimester		 Home health care patients who get better at walking or moving around Home health care patients who had to be admitted to the hospital
Doctor's bag		-Care outside normal opening hours - Scheduling care in opening hours	Home and other visits
Medical equipment, including drugs: - The practice has an up-to-date inventory list detailing what should be in the		-A sign is displayed outside the practice, detailing the practice's opening hours and how to access after-hours care -After-hours PC: To what extent are the following models	-Clinical staff provide home visits for patients who are physically not able to travel to the practice -Home visits: Average nr. of home visits per week per
% of the 13 essential non communicable diseases medicines with no stock out in last 3 months	% of pregnant women with first visit at the first trimester		Clinical staff provide home visits for patients who are physically not able to travel to the practice
		- Information about supply outside opening hours	home visits
		For all patients, the percentage of positive answers to the question 'how well do you hour action plan if you get sick	

					Practice equipment	Medical equipment, including drugs: -The essential basic equipment is available, -The essential emergency and resuscitation			
Safety of medication			 Use of medication alerts in PHC PHC support for medication incident 	Average PCP Safe and Effective Care Rating		- All patients receiving regular/repeat medications are	% of safe injections in the health care facility		
Emergency/Ambulatory care	Ambulatory Care Sensitive Conditions (ACSC)	 Hospitalization for ambulatory care sensitive conditions. 	- Ambulatory care sensitive conditions					Number of inpatient stays	Emergency care (low back pain)

Self - care	Waiting time
	Average waiting time (min) at out-patient clinics
	Percentage of Population, Age 18 And Older, With Chronic Conditions, Who Reported Having Had Enough Time and The Opportunity to Ask Questions In Most Visits With Their PHC Provider. Wait times
Consult for Community Care	-Getting care for illness or injury as soon as wantedED waiting timesTimeliness of cardiac reperfusion for heart attack patients - Established Primary Care Patient Average Wait Time in Days
	The proportion of clients whose wait from first contact to first service is within the locally agreed timeframe.
Individual self-care program coverage	
Support for self-management of chronic diseases	- Waiting time - non-acute treatment appointment - waiting time – acute treatment appointment
For all patients, the percentage of positive answers to the question 'Does the clinic's staff provide	