Management of Bronchial Asthma in Primary Healthcare[1]

List of indicators

General care indicators:
1. Availibility of PHC organizations that currently provide preventive services
2. Availibility of testing for asthma management in primary care
3. Asthma prevalence
4. Asthma incidence
5. Asthma coverage

Process indicators:
1. Asthma symptoms assessed based on ACT test;
2. Asthma control assessed based on combined assessment;
3. Asthma Diagnosis and pulmonary function monitoring based on Pulmonary Function Test;
4. Controller medication prescribed appropriately
5. Smoking cessation advised
6. Support for Self-Management and education of patients with asthma

Outcome indicators:
1. Asthma exacerbations
2. Acute Health Services Use—Hospitalizations for Asthma

General structure indicators

Indicator 1		
Description/Definition	**Name of indicator**	**Availibility of PHC organizations that currently provide preventive services**
	Description of Indicator	Percentage of primary health care (PHC) organizations that currently provide a range of PHC services
Data elements	**Which elements of data needed?**	PHC Center Survey, Health facility database
	Are data items collected/used currently?	No
Calculation	**Nominator**	Number of organizations in the denominator that report currently offering the following services: × Management of care for an emergent but minor health problem; × Non-urgent routine care; × Prevention and health promotion and/or education services; × Rehabilitation services; × Care for chronic conditions (Diabetes, CVD, Hypertension, Asthma, COPD) × Having Patients registers (general and for chronic conditions) **Inclusions** × Organization is in the denominator × Organization respondent reported currently providing follow-up for management of care for an emergent but minor health problem

		× Organization respondent reported currently providing follow-up for non-urgent routine care
		× Organization respondent reported currently providing follow-up for prevention and health promotion and/or education services
		× Organization respondent reported currently having rehabilitation services
		× Organization respondent reported currently having Care for chronic conditions (Diabetes, CVD, Hypertension, Asthma, COPD)
		× Organization respondent reported currently having Patients registers (general and for chronic conditions)
		× Organization respondent reported currently having guidelines and protocols for providing range of PHC services
	Denominator	Number of PHC organization respondents. **Inclusions** × PHC organization **Exclusions** None

Indicator 2		
Description/Definition	**Name of indicator**	**Availibility of testing for asthma management in primary care**
	Description of Indicator	Percentage of primary health care (PHC) organizations that currently provide tests for management of asthma
Data elements	**Which elements of data needed?**	PHC Center Survey, Health facility database
	Are data items collected/used currently?	No
Calculation	**Nominator**	Number of facilities in the denominator that have available and functional the medical equipment on-site or the specimen can be collected at the facility and sent out by the staff: × Lung finction measurement (spirometry, peak-flowmetry) × Blood eosinophile testing × ECG testing × Asthma control assessment questionnaries
	Denominator	Number of PHC organization respondents. **Inclusions** × PHC organization **Exclusions** None

Indicator 3		

Description/Definition	Name of indicator	Asthma prevalence
	Description of Indicator	Percentage of population, age 5 and older, who have currently asthma
Data elements	Which elements of data needed?	PHC Center Patients' data registry
	Are data items collected/used currently?	No
Calculation	Nominator	Number of individuals in the denominator who have the diagnosis of bronchial asthma
	Denominator	Patients aged 5 years and older **Inclusions** × PHC client/patient × Age of individual is at least 5 years **Exclusion** None

Indicator 4

Description/Definition	Name of indicator	Asthma incidence
	Description of Indicator	Percentage of population, age 5 and older with newly diagnosed asthma
Data elements	Which elements of data needed?	PHC Center Patients' data registry
	Are data items collected/used currently?	No
Calculation	Nominator	Number of individuals in the denominator in whom asthma is diagnosed within past 12 months
	Denominator	Patients aged 5 and older **Inclusions** × PHC client/patient × Age of individual is at least 5 years **Exclusion** None

Indicator 5

Description/Definition	Name of indicator	Asthma coverage
	Description of Indicator	Percentage of population, age 5 and older with asthma who were seen by their PHC provider
Data elements	Which elements of data needed?	PHC Center Patients' data registry, EMR, Reporting Forms, Outpatient and Home Visit Registration Journals, Specific Flowsheets
	Are data items collected/used currently?	No
Calculation	Nominator	Number of individuals in the denominator who were seen by their PHC provider within past 12 months
	Denominator	Patients aged 5 and older **Inclusions** × PHC client/patient × Age of individual is at least 5 years × Patient diagnosed with asthma **Exclusion** None
Note	**Definition of terms** × A PHC client/patient is an individual who has had contact with the provider at least once in the past year and has a record with the provider dating back at least two years.	
Disaggregation	What levels of disaggregation (separation) are needed (if needed)?	By individual Family Doctor; Man/Women;

		Age: 5-18; 18-39; 40-49; 50-59; 60-69; 70-79; 80+
Data source	Name of data source	Medical records, Reporting Forms, Outpatient and Home Visit Registration Journals, Specific Flowsheets, Health database surveys
	Format of data source	Paper based, or electronic medical record (EMR)
	Limitation of data source (e.g. could be used only after several years)	Use of EMR only after implementation of HMIS system locally
	Is data source used currently?	Medical records, outpatient and home visit registration journals are approved by the Ministry Order №01-41/n and are maintained uniformly by all outpatient service providers in accordance with this Order
Data quality	Limitations of data used (e.g. based on age, diagnosis etc.)	Patients aged 5 and older with diagnosis of bronchial asthma
	Checking of data quality	By the Quality Improvement team of the medical facility
Monitoring	Date of creation	-
	Date of updating	-
Organizations/Departments/Staff involved	Organization who owns/creates the data	Name of Medical Organization
	Organization submitting indicator report	Quality Improvement team of the medical facility, Family doctors/Nurses/Managers

Process/outcome indicators

Indicator 1		
Description/Definition	**Name of indicator**	**Asthma symptoms assessed based on ACT test**
	Description of Indicator	Percentage of patient population, age 5 years and older, with diagnosis of bronchial asthma whose symptoms were assessed based on validated test (ACT)
Data elements	**Which elements of data needed?**	Surveillance data of patients with the diagnosis of Bronchial asthma
	Are data items collected/used currently?	No
Calculation	**Nominator**	Number of primary health care (PHC) clients/patients with the diagnosis of asthma whose symptoms of asthma were assessed using Asthma Control test within the past 12 months. **Inclusions** × Individual is in the denominator × Individual has ACT test performed within the past 12 months **Exclusions** None
	Denominator	Number of PHC clients/patients, age 5 years and older, with Bronchial asthma. **Inclusions** × PHC client/patient × Age of individual is at least 5 years

		× Individual has a diagnosis of Bronchial asthma **Exclusions** None

Indicator 2		
Description/Definition	**Name of indicator**	**Asthma control assessed based on combined assessment**
	Description of Indicator	Percentage of patient population who have had an established diagnosis of asthma and their control assessed based on combined assessment
Data elements	**Which elements of data needed?**	Surveillance data of patients with the diagnosis of asthma
	Are data items collected/used currently?	No
Calculation	**Nominator**	Number of individuals in the denominator whose asthma control is assessed within the past 12 months by his/her provider using combined assessment based on symptom control and risk of future exacerbations. **Inclusions** × Individual is in the denominator × Individuals whose asthma control have been assessed based on symptom control and risk of future exacerbations. **Exclusions** None
	Denominator	Number of primary health care (PHC) clients/ Patients who have diagnosis of asthma. **Inclusions** × PHC client/patient × Patient age is at least 5 years and older × Patient is diagnosed with asthma **Exclusions** None

Indicator 3		
Description/Definition	**Name of indicator**	**Asthma Diagnosis and pulmonary function monitoring based on Pulmonary Function Test**
	Description of Indicator	Percentage of population, with diagnosis of asthma who had measured pulmonary function for asthma diagnosis and disease monitoring
Data elements	**Which elements of data needed?**	Surveillance data of patients with the diagnosis of asthma
	Are data items collected/used currently?	No
Calculation	**Nominator**	Number of individuals, age 5 years and older, with diagnosis of asthma who had measured FEV1 at start of treatment, after 3-6 months of treatment, then periodically for ongoing risk assessment. **Inclusions** × Age of individual is at least 5 years × Individual has a diagnosis of bronchial asthma × Individual has been measured pulmonary function within the past 12 months **Exclusions**

		None
	Denominator	Number of primary health care (PHC) clients/ Patients who have diagnosis of asthma. **Inclusions** × PHC client/patient × Patient is diagnosed with bronchial asthma **Exclusions** None

Indicator 4		
Description/Definition	**Name of indicator**	**Adequate prescription of controller medications for asthma treatment**
	Description of Indicator	Percentage of population, with diagnosis of asthma who have been adequately prescribed controller medication
Data elements	**Which elements of data needed?**	Surveillance data of patients with the diagnosis of asthma
	Are data items collected/used currently?	No
Calculation	**Nominator**	Number of individuals, age 5 years and older, with diagnosis of asthma who have been prescribed controller medication (ICS, LABA/ICS, LTRA). **Inclusions** × Age of individual is at least 5 years × Individual has a diagnosis of bronchial asthma × Individual has been prescribed controller medication based on asthma control assessment **Exclusions** None
	Denominator	Number of primary health care (PHC) clients/ Patients who have diagnosis of asthma. **Inclusions** × PHC client/patient × Patient is diagnosed with bronchial asthma × Age of individual is at least 5 years **Exclusions** None

Indicator 5		
Description/Definition	**Name of indicator**	**Smoking cessation advice to patients with asthma**
	Description of Indicator	Percentage of patient population with asthma who are smokers and were offered specific help or information to quit smoking.
Data elements	**Which elements of data needed?**	Surveillance data of patients with the diagnosis of asthma
	Are data items collected/used currently?	No
Calculation	**Nominator**	Number of individuals in the denominator who were offered specific help or information to quit smoking within the past 12 months. **Inclusions** × Individual is in the denominator

		× Individual was offered smoking cessation education within the past 12 months
		Exclusions None
	Denominator	Number of primary health care (PHC) clients/patients, age 12 and older, who have asthma and are smokers. **Inclusions** × PHC client/patient × Age of individual is at least 12 years × Individual is a smoker × Individual is diagnosed with asthma **Exclusions** Individual uses tobacco only for a purpose other than smoking

Indicator 6

Description/Definition	**Name of indicator**	**Support for Self-Management and education of patients with asthma**
	Description of Indicator	Percentage of patient population, age 5 years and older, with asthma who received at least one of the following types of self-management support from their primary health care (PHC) provider: × Provided with a treatment plan; × Encouraged to use self-help groups or asthma education programs.
Data elements	**Which elements of data needed?**	Surveillance data of patients with asthma, asthma patinets' survey
	Are data items collected/used currently?	No
Calculation	**Nominator**	Number of individuals in the denominator who reported receiving at least one of the following types of self-management support from their PHC provider over the past 12 months: × Provided with a treatment plan; and/or × Encouraged to use self-help groups or asthma education programs. **Inclusions** × Individual is in the denominator × Individual reported at least one of the following over the past 12 months: ! Was helped in making a treatment plan ! Was encouraged to go to a specific group or class to help to cope with asthma ! Was encouraged to attend programs in the community that could help him

		or her care for his or her chronic condition(s) **Exclusions** None
	Denominator	Number of patients aged 5 years and older with diagnosis of asthma **Inclusions** x PHC client/patient x Age of individual is at least 5 years x Individual is diagnosed with asthma **Exclusion** x None

Indicator 7

Description/Definition	Name of indicator	Asthma exacerbations
	Description of Indicator	Percentage of population, with diagnosis of asthma who had asthma exacerbations
Data elements	**Which elements of data needed?**	Surveillance data of patients with the diagnosis of asthma
	Are data items collected/used currently?	No
Calculation	Nominator	Number of individuals, age 5 years and older, with diagnosis of asthma who had asthma exacerbations within the past 12 months. **Inclusions** × Age of individual is at least 5 years × Individual has a diagnosis of bronchial asthma × Individual had asthma exacerbation within the past 12 months **Exclusions** None
	Denominator	Number of primary health care (PHC) clients/ Patients who have diagnosis of asthma. **Inclusions** × PHC client/patient × Patient is diagnosed with bronchial asthma **Exclusions** None

Indicator 8

Description/Definition	Name of indicator	Acute Health Services Use—Hospitalizations for Asthma
	Description of Indicator	Percentage of population, with diagnosis of asthma who have been hospitalized due to asthma
Data elements	**Which elements of data needed?**	Surveillance data of patients with the diagnosis of asthma
	Are data items collected/used currently?	No
Calculation	Nominator	Number of individuals, age 5 years and older, with diagnosis of asthma who have been hospitalized due to asthma exacerbation within the past 12 months. **Inclusions** × Age of individual is at least 5 years

		× Individual has a diagnosis of bronchial asthma × Individual has been hospitalized due to asthma exacerbation within the past 12 months **Exclusions** None
	Denominator	Number of primary health care (PHC) clients/ Patients who have diagnosis of asthma. **Inclusions** × PHC client/patient × Patient is diagnosed with bronchial asthma **Exclusions** None

Note	**Definitions of terms** × A PHC client/patient is an individual who has had contact with the provider at least once in the past year and has a record with the provider dating back at least two years.	
Disaggregation	What levels of disaggregation (separation) are needed (if needed)?	By individual Family Doctor; Man/Women; Age: 5-18; 18-39; 40-49; 50-59; 60-69; 70-79; 80+
Data source	Name of data source	Medical records, Reporting Forms, Outpatient and Home Visit Registration Journals, Specific Flowsheets
	Format of data source	Paper based, or electronic medical record (EMR)
	Limitation of data source (e.g. could be used only after several years)	Use of EMR only after implementation of HMIS system locally
	Is data source used currently?	Medical records, outpatient and home visit registration journals are approved by the Ministry Order №01-41/n and are maintained uniformly by all outpatient service providers in accordance with this Order
Data quality	Limitations of data used (e.g. based on age, diagnosis etc.)	Patients aged 5 and older with diagnosis of bronchial asthma
	Checking of data quality	By the Quality Improvement team of the medical facility
Monitoring	Date of creation	-
	Date of updating	-
Organizations/Departments/Staff involved	Organization who owns/creates the data	Name of Medical Organization
	Organization submitting indicator report	Quality Improvement team of the medical facility, Family doctors/Nurses/Managers

Evidence source:

[1] 2021 GINA Report, Global Strategy for Asthma Management and Prevention: https://ginasthma.org/gina-reports/