Enhanced Care Management Impact Evaluation 2021 Update

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Identification

SURVEY ID NUMBER
EST_2021_ECMIE_v01_M

TITLE
Enhanced Care Management Impact Evaluation 2021 Update

ABBREVIATION OR ACRONYM
ECMIE 2021

COUNTRY

Name	Country code
Estonia	EST

STUDY TYPE
Administrative Records, Health (ad/hea]

SERIES INFORMATION
This is the 2021 summary data for this impact evaluation. The 2019 data can be accessed by staff on the Microdata Library here: https://microdatalib.worldbank.org/index.php/catalog/12005.

ABSTRACT
The Enhanced Care Management (ECM) intervention consists of training and coaching doctors and their teams to develop holistic care and pro-active outreach plans for chronically ill patients or those vulnerable to developing chronically illnesses. The core goal of ECM is to improve the quality of care provided to complex patients, including by increasing the use of preventive care, better coordinating care across health system levels, and increasing patient involvement in care. These elements can improve patient health and quality of life, and may reduce the need for curative medical services—for example, by supporting patients with diabetes to improve their diet and increase their level of fitness to limit further deterioration in their health.

ECM practices include improved tracking of tests and referrals, follow-up after hospital discharges, tracking medication adherence, monitoring between clinic visits, and focusing on achieving clinical quality. It includes four elements: identifying high-risk patients through risk stratification, developing care management plans by the primary care physician, proactively linking care providers together, and developing a team approach with patients and their caregivers.

KIND OF DATA
Aggregate data [agg]

UNIT OF ANALYSIS
Enhanced Care Management provider

Version

VERSION DESCRIPTION
v01: Edited, anonymous dataset for official use

VERSION DATE
2021-12-15

VERSION NOTES
This version of the data includes the initial program uptake summary. The unit of analysis is the ECM provider. There are a total of 97 providers included in ECM out of 800 providers in the Estonia Health Insurance Fund network. This dataset includes the summary for these 97 providers on ECM take up indicators such as care plans, patient invitations and patient consultations.

Scope

NOTES

The scope of this study includes the following:

Random assignment of clinics into ECM and non-ECM clinics, Quality Bonus Scheme score, Management score, and Coarsened Exact Matching (CEM) stratification

Coverage

GEOGRAPHIC COVERAGE

97 providers in the Estonia Health Insurance Fund and 2,389 patients spread across Estonia

UNIVERSE

Clinics and providers in Estonia registered with the Estonia Health Insurance Fund (EHIF)

Producers and sponsors

PRIMARY INVESTIGATORS

Name	Affiliation
Dan Rogger	The World Bank Group
Kevin Croke	Harvard T.H. Chan School of Public Health
Benjamin Danels	Georgetown University

PRODUCERS

Name	Affiliation	Role
Jekaternia Steinmiller	Estonia Health Insurance Fund	Implementing partner

FUNDING AGENCY/SPONSOR

Name	Abbreviation
Strategic Impact Evaluation Fund	SIEF

Sampling

SAMPLING PROCEDURE

Sampling of the Enhanced Care Management (ECM) intervention is done in two stages: 1. The first stage of sampling was done at the clinic level. The randomization was done by making performance blocks of management and Quality Bonus Scheme (QBS) score and, selecting 1/4th of clinics randomly from each block into ECM. Initially there were 93 clinics and 144 providers selected into ECM. 2. The second stage of sampling was done at the patient level. From each selected provider, 25 patients were selected into ECM using stratified random sampling.

This data submission consists of summary indicators for ECM activities. The most recent activity in ECM was making care plans of patients selected into ECM. The patient selection into ECM was conducted between June-September 2021 and 2,389 patients were randomly selected into ECM. Since then, the main ECM activities have been:

- The providers and coordinators beginning outreach to invite patients to enroll in ECM.
- The providers recording refusal to join by patients, in the claims data.
- The providers and coordinators making care plans for patients.

DEVIATIONS FROM THE SAMPLE DESIGN

Any deviations from the sample design are due to provider dropout. 48 providers refused to participate in the program which reduced the number of providers in ECM. The patient refusal to join the program is recorded in the billing data.

Data collection

DATES OF DATA COLLECTION

Start	End	Cycle
2021-01-01	2021-01-11	Annual

FREQUENCY OF DATA COLLECTION
Annual

DATA COLLECTION MODE
Other [oth]

DATA COLLECTION NOTES
The Estonia Health Insurance Fund (EHIF) billing data includes every health interaction of Estonian citizens. In summary, we have electronic medical and billing records spread over eight health care types - primary health care, day care, outpatient care, outpatient nursing care, outpatient rehabilitation care, inpatient care, inpatient nursing care, and inpatient rehabilitation care from 2009 until 2019.

DATA COLLECTORS

Name
Estonia Health Insurance Fund

data_processing

METHODOLOGY NOTES
1. All the de-identification was done compliant with Health Insurance Portability and Accountability Act of 1996 (HIPAA)
2. All the identifiers are removed or de-identified in the dataset

Access policy

CONTACTS

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ACCESS CONDITIONS
Official Access

CITATION REQUIREMENTS
Use of the dataset must be acknowledged using a citation which would include:
- the Identification of the Primary Investigator
- the title of the survey (including country, acronym and year of implementation)
- the survey reference number
- the source and date of download

Example:
World Bank Group. Estonia - Enhanced Care Management Impact Evaluation 2021 Update. Ref: EST_2021_ECMIE_v01_M.

Dataset downloaded from [URL] on [date].

ACCESS AUTHORITY

Name	Affiliation	Email	URL
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LOCATION OF DATA COLLECTION
World Bank Microdata Library

Disclaimer and copyrights

DISCLAIMER
The user of the data acknowledges that the original collector of the data, the authorized distributor of the data, and the relevant funding agency bear no responsibility for use of the data or for interpretations or inferences based upon such uses.

Metadata production

DDI DOCUMENT ID
DDI_EST_2021_ECMIE_v01_M_WB

PRODUCERS

Name	Abbreviation	Affiliation	Role
Development Economics Data Group	DECDG	The World Bank Group	Documentation of the study

DATE OF METADATA PRODUCTION
2023-07-26

DDI DOCUMENT VERSION
Version 01 (July 2023)

data_dictionary

Data file	Cases	variables
gp_ecm_summary_2021.dta This dataset is constructed from the primary healthcares data of 2021. Since it contains sensitive identifiers such as claims number, patient ID and provider ID we aggregate the summary variables at the level of provider, de-identify, clean the dataset and then produce the summary.	97	13

Data file	Cases	variables
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Data file: gp_ecm_summary_2021.dta

This dataset is constructed from the primary healthcares data of 2021. Since it contains sensitive identifiers such as claims number, patient ID and provider ID we aggregate the summary variables at the level of provider, de-identify, clean the dataset and then produce the summary.

Cases:	97
variables:	13

variables

ID	Name	Label	Question
V1	sampling_id	GP sampling ID	
V2	pat_refuse	Number of patients refused to join ECM	
V3	pat_invite	Number of patients invited to ECM	
V4	nurse_tele	Number of patients atleast one telephone follow up by nurse	
V5	nurse_follow	Number of patients atleast one Follow up by nurse	
V6	nurse_email	Number of patients atleast one Nurse follow up by email	
V7	gp_tele	Number of patients atleast one GP telephone follow up	
V8	glyco_hemo_6618	Number of patients atleast one Number of patients Hba1c done	
V9	creatine_66102	Number of patients atleast one Number of patients creatinine test done	
V10	chronic_consult	Number of patients atleast one Chronic illness follow up	
V11	cholesterol_66105	Number of patients atleast one Total cholesterol test	
V12	cholesterol_66104	Number of patients atleast one Cholesterol fractions test	
V13	care_plan	Number of patients with care plan	

total: 13

SAMPLING_ID: GP sampling ID

Data file: gp_ecm_summary_2021.dta

Overview

Valid: 97   Invalid: Minimum: 1   Maximum: 97
Type: Continuous   Decimal: 0   Width: 2   Range: 1 - 97   Format: Numeric

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PAT_REFUSE: Number of patients refused to join ECM

Data file: gp_ecm_summary_2021.dta

Overview

Valid: 97   Invalid: Minimum: 0   Maximum: 8
Type: Discrete   Decimal: 0   Width: 1   Range: 0 - 8   Format: Numeric

Questions and instructions

CATEGORIES

Value	Category	Cases	
0		92	94.8%
1		3	3.1%
3		1	1%
8		1	1%

PAT_INVITE: Number of patients invited to ECM

Data file: gp_ecm_summary_2021.dta

Overview

Valid: 97   Invalid: Minimum: 0   Maximum: 33
Type: Discrete   Decimal: 0   Width: 2   Range: 0 - 33   Format: Numeric

Questions and instructions

CATEGORIES

Value	Category	Cases	
0		42	43.3%
1		2	2.1%
2		4	4.1%
4		1	1%
5		3	3.1%
6		3	3.1%
9		1	1%

10		4	4.1%
11		1	1%
12		3	3.1%
13		1	1%
14		3	3.1%
16		1	1%
17		4	4.1%
18		4	4.1%
19		1	1%
20		2	2.1%
21		1	1%
22		1	1%
23		1	1%
24		1	1%
25		1	1%
26		5	5.2%
27		1	1%
28		1	1%
29		1	1%
32		3	3.1%
33		1	1%

NURSE_TELE: Number of patients atleast one telephone follow up by nurse

Data file: gp_ecm_summary_2021.dta

Overview

Valid: 97   Invalid: Minimum: 0   Maximum: 287
Type: Continuous   Decimal: 0   Width: 3   Range: 0 - 287   Format: Numeric

NURSE_FOLLOW: Number of patients atleast one Follow up by nurse

Data file: gp_ecm_summary_2021.dta

Overview

Valid: 97   Invalid: Minimum: 0   Maximum: 315
Type: Continuous   Decimal: 0   Width: 3   Range: 0 - 315   Format: Numeric

NURSE_EMAIL: Number of patients atleast one Nurse follow up by email

Data file: gp_ecm_summary_2021.dta

Overview

Valid: 97   Invalid: Minimum: 0   Maximum: 60
Type: Discrete   Decimal: 0   Width: 2   Range: 0 - 60   Format: Numeric

Questions and instructions

CATEGORIES

Value	Category	Cases	
0		87	89.7%
1		2	2.1%
4		3	3.1%
6		1	1%
8		1	1%
13		1	1%
22		1	1%
60		1	1%

GP_TELE: Number of patients atleast one GP telephone follow up

Data file: gp_ecm_summary_2021.dta

Overview

Valid: 97   Invalid: Minimum: 0   Maximum: 33
Type: Discrete   Decimal: 0   Width: 2   Range: 0 - 33   Format: Numeric

Questions and instructions

CATEGORIES

Value	Category	Cases	
0		42	43.3%
1		2	2.1%
2		4	4.1%
4		1	1%
5		3	3.1%
6		3	3.1%
9		1	1%
10		4	4.1%
11		1	1%
12		3	3.1%
13		1	1%
14		3	3.1%

16		1	1%
17		4	4.1%
18		4	4.1%
19		1	1%
20		2	2.1%
21		1	1%
22		1	1%
23		1	1%
24		1	1%
25		1	1%
26		5	5.2%
27		1	1%
28		1	1%
29		1	1%
32		3	3.1%
33		1	1%

GLYCO_HEMO_6618: Number of patients atleast one Number of patients Hba1c done

Data file: gp_ecm_summary_2021.dta

Overview

Valid: 97   Invalid: Minimum: 4   Maximum: 77
Type: Discrete   Decimal: 0   Width: 2   Range: 4 - 77   Format: Numeric

Questions and instructions

CATEGORIES

Value	Category	Cases	
4		3	3.1%
5		3	3.1%
6		6	6.2%
7		1	1%
8		1	1%
9		6	6.2%
10		1	1%
11		2	2.1%
12		5	5.2%
14		3	3.1%
15		5	5.2%

16		3	3.1%
17		3	3.1%
18		5	5.2%
19		2	2.1%
20		2	2.1%
21		4	4.1%
22		4	4.1%
23		2	2.1%
24		2	2.1%
25		2	2.1%
26		2	2.1%
27		3	3.1%
30		2	2.1%
31		1	1%
32		1	1%
33		3	3.1%
34		2	2.1%
37		1	1%
38		1	1%
40		2	2.1%
41		1	1%
42		1	1%
43		1	1%
44		1	1%
45		1	1%
47		1	1%
48		1	1%
49		1	1%
52		1	1%
54		1	1%
57		2	2.1%
61		1	1%
77		1	1%

CREATINE_66102: Number of patients atleast one Number of patients creatinine test done

Data file: gp_ecm_summary_2021.dta

Overview

Valid: 97   Invalid: Minimum: 12   Maximum: 192

Type: Continuous   Decimal: 0   Width: 3   Range: 12 - 192   Format: Numeric

CHRONIC_CONSULT: Number of patients atleast one Chronic illness follow up

Data file: gp_ecm_summary_2021.dta

Overview

Valid: 97   Invalid: Minimum: 0   Maximum: 69
Type: Discrete   Decimal: 0   Width: 2   Range: 0 - 69   Format: Numeric

Questions and instructions

CATEGORIES

Value	Category	Cases	
0		16	16.5%
1		4	4.1%
2		4	4.1%
3		2	2.1%
4		5	5.2%
5		3	3.1%
6		4	4.1%
7		3	3.1%
8		3	3.1%
9		2	2.1%
10		5	5.2%
13		2	2.1%
14		5	5.2%
16		3	3.1%
18		1	1%
19		1	1%
20		4	4.1%
21		3	3.1%
22		2	2.1%
23		3	3.1%
24		2	2.1%
25		1	1%
26		1	1%
28		1	1%
29		1	1%
30		1	1%
31		1	1%

32		3	3.1%
33		2	2.1%
34		1	1%
37		2	2.1%
38		1	1%
44		1	1%
47		2	2.1%
48		1	1%
69		1	1%

CHOLESTEROL_66105: Number of patients atleast one Total cholesterol test

Data file: gp_ecm_summary_2021.dta

Overview

Valid: 97   Invalid: Minimum: 11   Maximum: 146
Type: Continuous   Decimal: 0   Width: 3   Range: 11 - 146   Format: Numeric

CHOLESTEROL_66104: Number of patients atleast one Cholesterol fractions test

Data file: gp_ecm_summary_2021.dta

Overview

Valid: 97   Invalid: Minimum: 16   Maximum: 138
Type: Continuous   Decimal: 0   Width: 3   Range: 16 - 138   Format: Numeric

CARE_PLAN: Number of patients with care plan

Data file: gp_ecm_summary_2021.dta

Overview

Valid: 97   Invalid: Minimum: 0   Maximum: 35
Type: Discrete   Decimal: 0   Width: 2   Range: 0 - 35   Format: Numeric

Questions and instructions

CATEGORIES

Value	Category	Cases	
0		45	46.4%
2		4	4.1%
3		2	2.1%
4		1	1%
5		2	2.1%

6		1	1%
7		1	1%
9		2	2.1%
10		1	1%
11		1	1%
12		5	5.2%
13		2	2.1%
14		2	2.1%
16		1	1%
17		4	4.1%
18		2	2.1%
19		2	2.1%
20		1	1%
21		1	1%
23		1	1%
24		2	2.1%
25		3	3.1%
26		2	2.1%
27		2	2.1%
28		1	1%
29		1	1%
31		1	1%
32		1	1%
33		1	1%
34		1	1%
35		1	1%

study_resources

technical_documents

Enhanced Care Management 2021 Summary Data - Microdata Catalog Submission

title	Enhanced Care Management 2021 Summary Data - Microdata Catalog Submission
authors	Development Impact Evaluation (DIME) Team
country	Estonia
language	English
description	This document contains a brief description of the data as well as a summary table with the 2021 indicators.
filename	Microdata_submission.pdf

Enhanced Care Management 2021 - ReadMe Document

title	Enhanced Care Management 2021 - ReadMe Document
country	Estonia
language	English
description	This document provides a description of the submission package of the ECM provider level data and summary table created on ECM implementation. We use the latest 2021 data from EHIF to measure the summary of the preliminary intervention uptake.
filename	readme.txt