



New needs in chronic diseases care

Marija Vrca Botica, Ivana Pavlić-Renar
Medical School University of Zagreb

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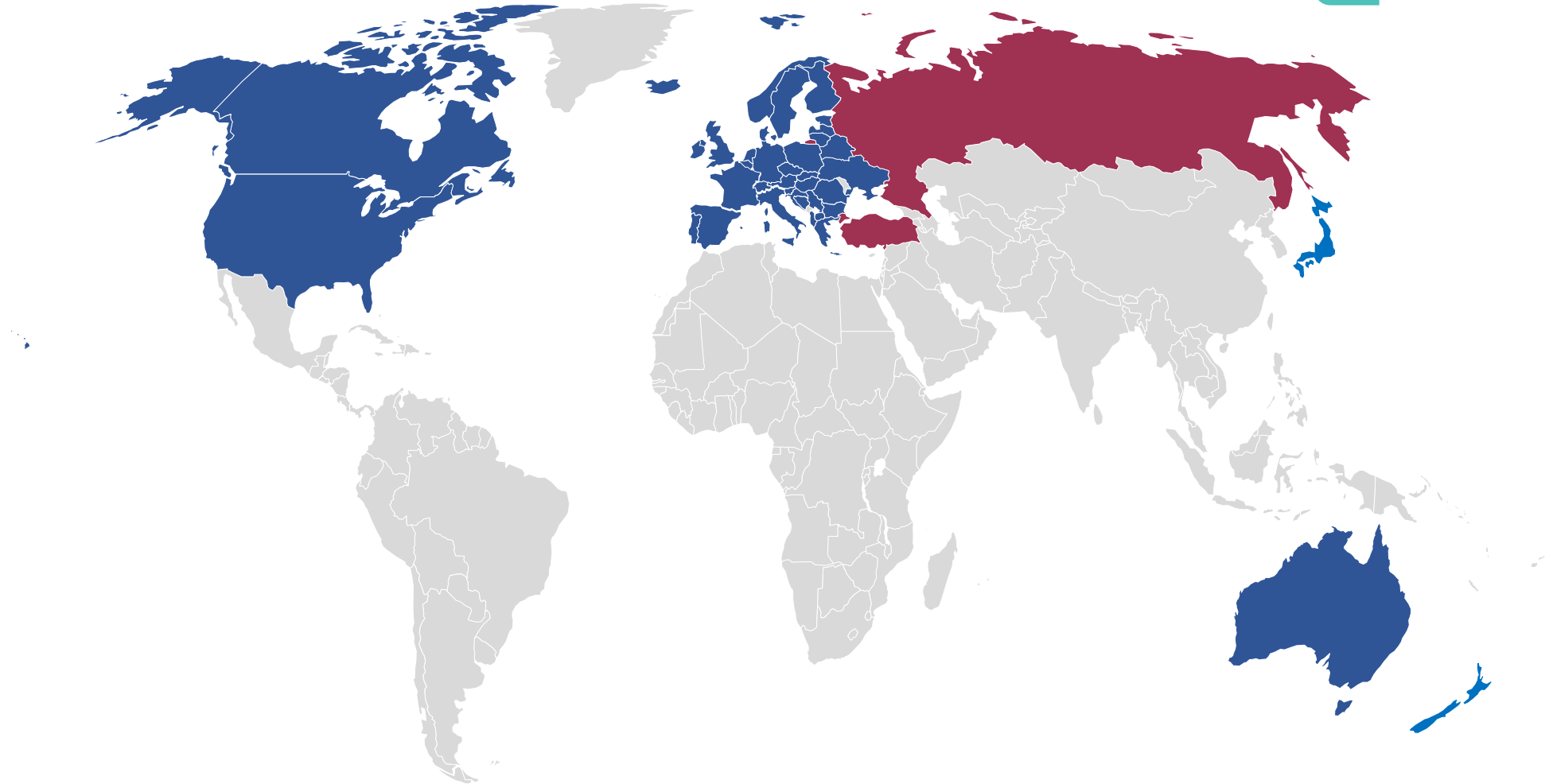
Increased prevalence of chronic diseases

- Eradication of infectious diseases: antibiotics, vaccines
- Decrease of violent deaths, positive socio- political changes, improved social conditons, increased health literacy and behavior
- Progress in medical intrventions which changed courses and outcomes of diseases

Paradoxal interpretation of progress

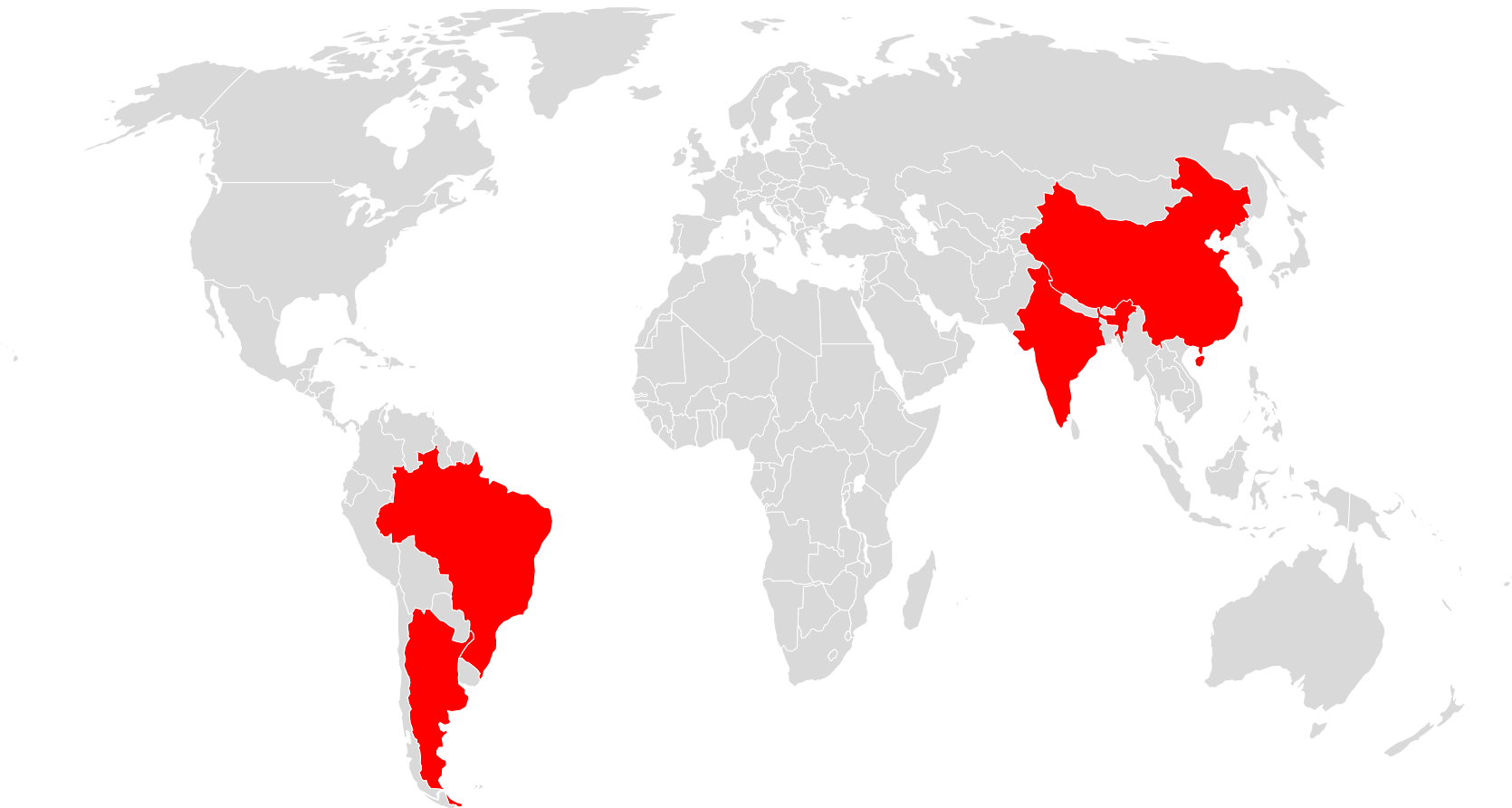
- Benefit of synergistic effects of civilization developments: leading causes of death in west are chronic diseases today
- 73% population dies of chronic diseases
- By prolongation of lifetime about a decade is added in the age > 70y

Chronic diseases as cause of death globally



Europe, Australia, N America: 73% of general mortality is of chronic diseases
Russia and Turkey have trends in this direction

Chronic diseases as cause of death globally – cont.



Countries with large populations where *a boom* of chronic diseases is expected in coming decade will increase global prevalence of chronic diseases by 32%

Necessary structural components in chronic disease care in FM – new WHO approach



Secondary prevention early detection

- Based on risk – likelihood that a disease might develop
- No symptoms

Treatment- tertiary prevention

- Symptoms and clinical picture present
- Efficient treatment provides better outcome and avoids unwanted events (complications, premature death)

Additional 10 years in age ≥ 70 y

Adding more chronic diseases : MM2,MM3

Resolve Multimorbidity of chronic diseases

Multimorbidity

New diagnosis?

Opportunistic screening - FM as its natural base

- Core of screening is stratified medicine: division of patient in groups with/witout risk for asimptomatic disease
- Why FM?
 - Synthetic familiarity in all specialities up to a certain level
 - Synthetic familiarity on diseases in patient and his/her familly – continuity of care, all recorded in EMD
 - Familly physician meets 80% patient annually
 - Familly physician in professionally qualified for screening
 - Familly physician is familiar with communication and cooperation with patients

National programs of secondary prevention

- universal screening (risk age/gender):
 - ✓ Disease affects specific age groups
 - ✓ Symptoms occur in late phase of the disease with high mortality
 - ✓ Early detection involves specific exams, sophisticated equipment and educated personell
- Croatia: 4 National universal screenings:
 - Breast carcinoma
 - Cervical carcinoma
 - Collon carcinoma
 - Lung carcinoma

What went wrong in secondary prevention?!

- unrealistic goals – eradication of risks
- lowering limits for demarcation health/disease
- risk is becoming the third entity *mid-disease*
- **HEALTH / predisease/ DISEASE**
 - diagnostic technology, biomarkers and widely available tests, increased medical (frequently superfluous) information, unclear delineation values for health/disease
 - metric and biomarker commercialization is dropping in

Predisease is slowly becoming a surplus diagnosis

- Escalation of surplus diagnoses:
thyroid, prostate, prediabetes, hyperlipidemia, prehypertension, osteopenia, menopause, andropause, work burnout, normatively inadequate behaviour= psychiatric diseases, ADHD
- Surplus diagnosis in the system gets characteristics of a disease.
- Most risks are recorded as diagnoses according to ICD-10 since it is not possible to record them as risks (no code)

CroMaKo study: Diabetes mellitus



45-70 year	CROATIA (ER)	KOSOVA underwent to GP	earlier literature
Number needed to invite (NNI)	5568 (45-70y) 2849(46%) had at least one risk; -22,5% with test in past 3 y	5334 (45-70y) 1208 (22,6%) had at least one risk	
Total prevalence of DM in the group	10,9% known: 9,5%	17,2% known 15,3%	First Cro Project 6,1 (18-65 y)
Added prevalence by new dg	1,4%	1,9%	0,7-3,0%
Number needed to screen (NNS) for 1 new DM	10,3	8	37
Risks: TT	OR:2,11(CI:1,41-3,15);P<.001)	RR; OR 2,1(CI:1,43-2,82);P< .001	
OA, RR	OR:2,54 (CI:1,78-1,61); P<.001)	TT; OR 1,88(CI:1,39-2,55) P< .001	



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Original Research

How to improve opportunistic screening by using EMRs and other data. The prevalence of undetected diabetes mellitus in target population in Croatia



M. Vrca Botica ^{a,*}, L. Carkaxhiu ^b, J. Kern ^c, I. Pavlić Renar ^d, I. Botica ^e,
I. Zelić ^f, D. Iliev ^g, A. Vrca ^h

^a Department of Family Medicine, University of Zagreb, School of Medicine, Zagreb, Croatia

^b Department of Family Medicine, University of Prishtina, Prishtina, Kosovo

^c Department of Informatics, University of Zagreb, School of Medicine, Zagreb, Croatia

^d Department of Endocrinology, University Hospital Zagreb, Croatia

^e Department of Otorhinolaryngology and Head and Neck Surgery, University Hospital Zagreb, Croatia

^f Private Family Practice Bukovje, Croatia

^g Department of Family Medicine, University of Skopje, Macedonia

^h Department of Neurology, Clinical Hospital Dubrava, Zagreb, Croatia

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ABSTRACT

Objectives: Opportunistic screening for type 2 diabetes (T2D) has not been adopted as part of routine practice. The aim of the study was to investigate the yield of opportunistic target screening for T2D in Croatia and to evaluate the process of screening by using data from electronic medical record.

Study design: We conducted opportunistic screening in 23 general practitioners (GPs) in a population of 13,344 patients aged 45–70 years.

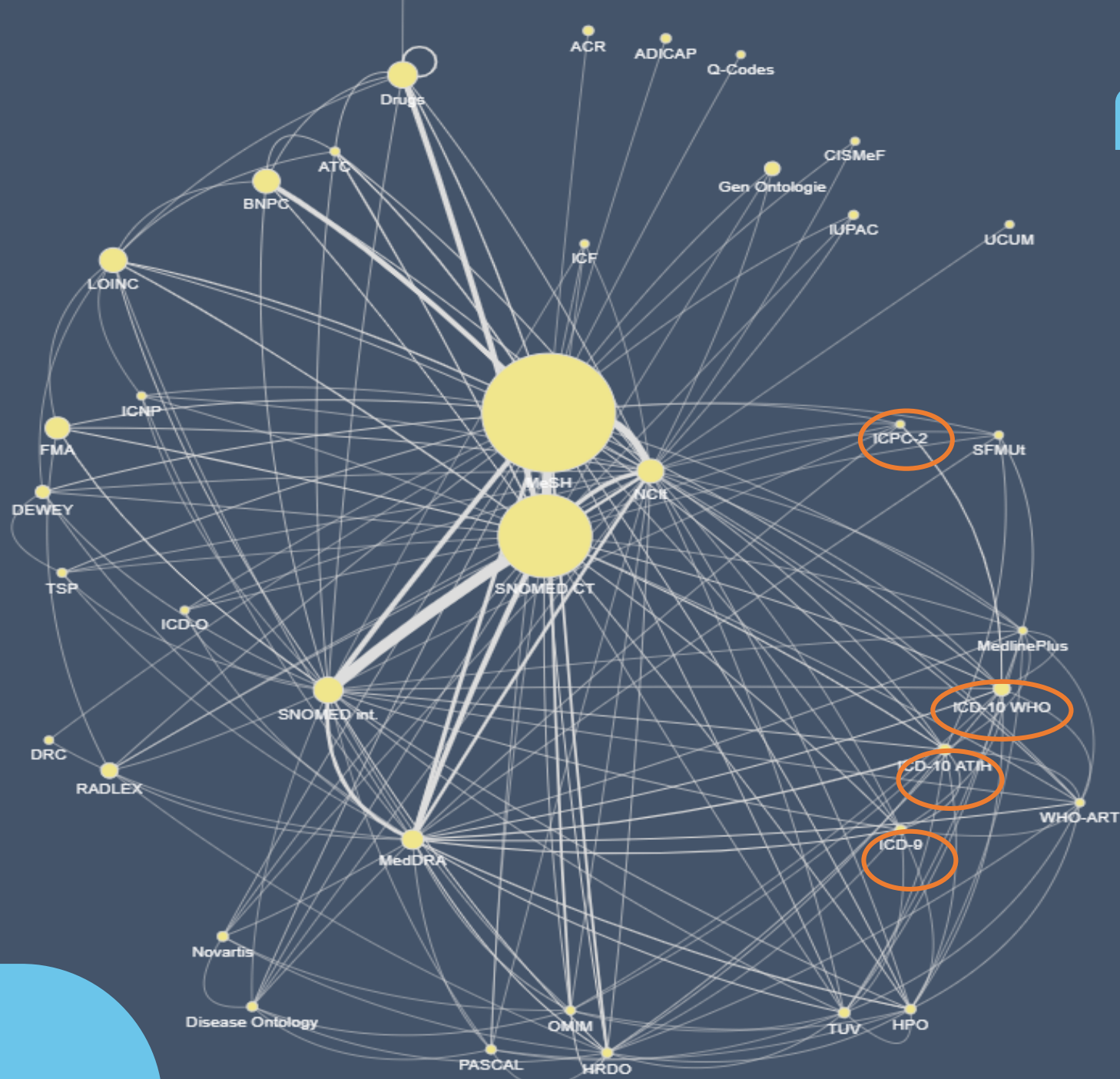
Methods: First, after excluding patients with T2D, patients with risk factors for T2D were

Further needs in screening

- Generally, not yet incorporated in routine practice of FM
- No adequate IT support for easy browsing data on risks, outcomes in medical records, records of continuity of care.....
- Intervention after screening and results of intervention in routine practice are not significantly different

Multimorbidity

- **Individual epidemiologic estimate of multimorbidity is not possible**
- **ICD-10 and ICD-11 records only single disease with additional three digit for complication of that disease**
- **ICD-10 and ICD-11 cannot record MM disease, cannot record Index Disease Severity(IDS)**



Age of onset of most common chronic diseases: 40-64 y

Croatia: 1.499.554 = 35% population, of these:

- 60 % 1 chronic disease
- 21.2% 2-4 chronic diseases
- 6.4% 5 or more chronic diseases

Multimorbidity problem

- There is no a key professional within health system for a synthetic approach to a person with multimorbidity
- There is a need for a new profile and additional role of properly educated family physician

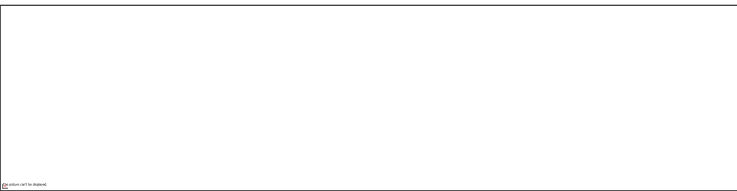
Diabetes as a model of a chronic disease

- Courses for GPs jointly led by a GP and a diabetologist
- Textbook on diabetes for non-diabetologists



Secondary to tertiary prevention to person but not to disease : First Croatian Congress on prevention of chronic diseases in women 2018

- Secondary prevention naturally belongs in primary care. First public professional/research and educational activity on primary care level in Croatia (rare also elsewhere)
- Presentation of family physician's integrative individual approach to the person, not the disease, the organ or the organ system





Congresses

International Interdisciplinary Assotiation for Chronic Diseses

year	lecturers	familly physicians	other
2018	21	10	11
2019	25	10	15
2020	16	10	6
2021	23	8	15
2022	20	6	14
total	105	44	61



Thank you