



UniversityHospital Heidelberg

Chronic Diseases and Multimorbidity – Challenges for Healthcare Systems

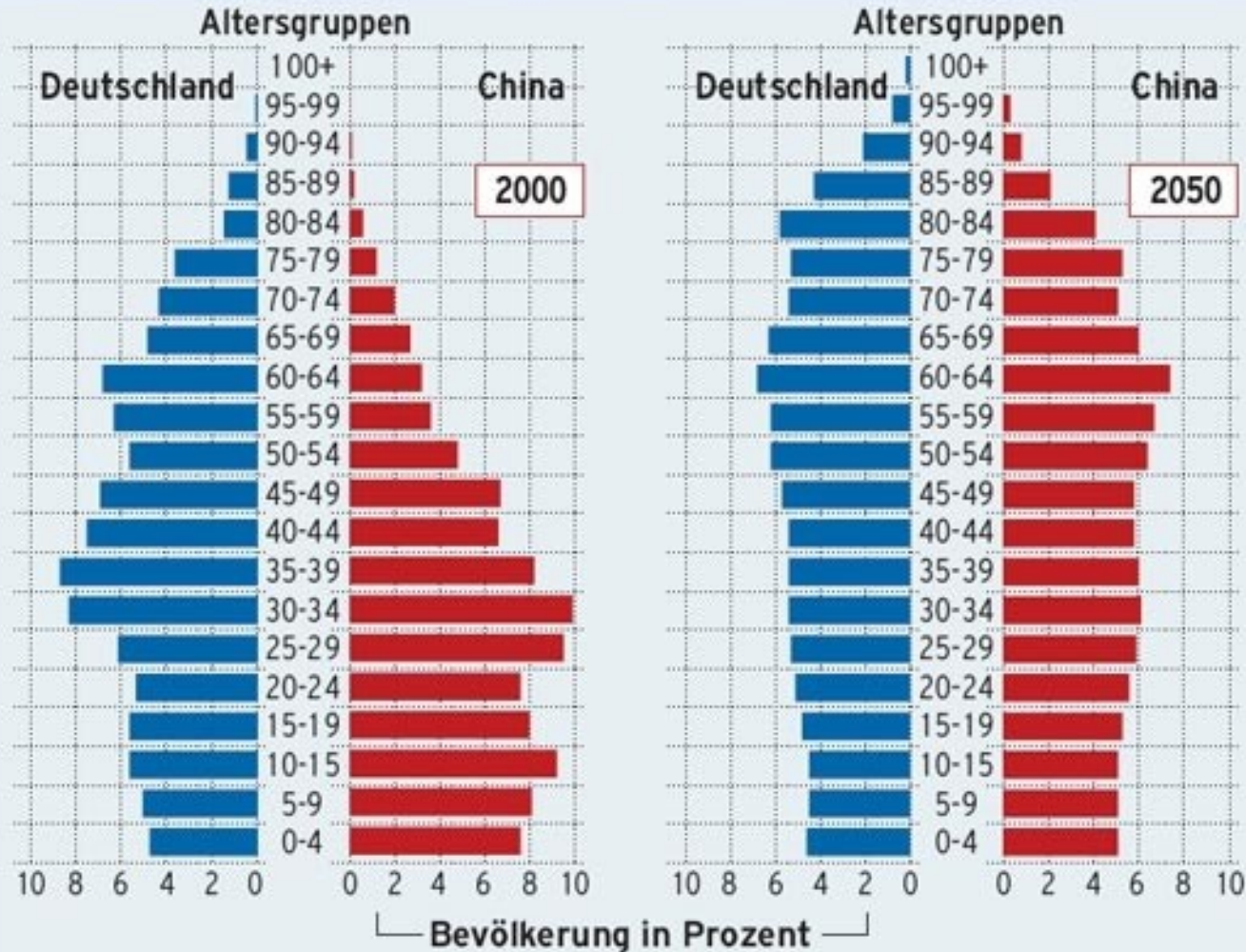
Prof. Joachim Szecsenyi, MD, MSc

Dep. of General Practice and Health Services Research,
University Hospital Heidelberg, Germany

AQUA- Institute for Applied Quality Improvement and Research in
Health Care, Göttingen, Germany

The challenge

Die Alterspyramiden 2000 und 2050

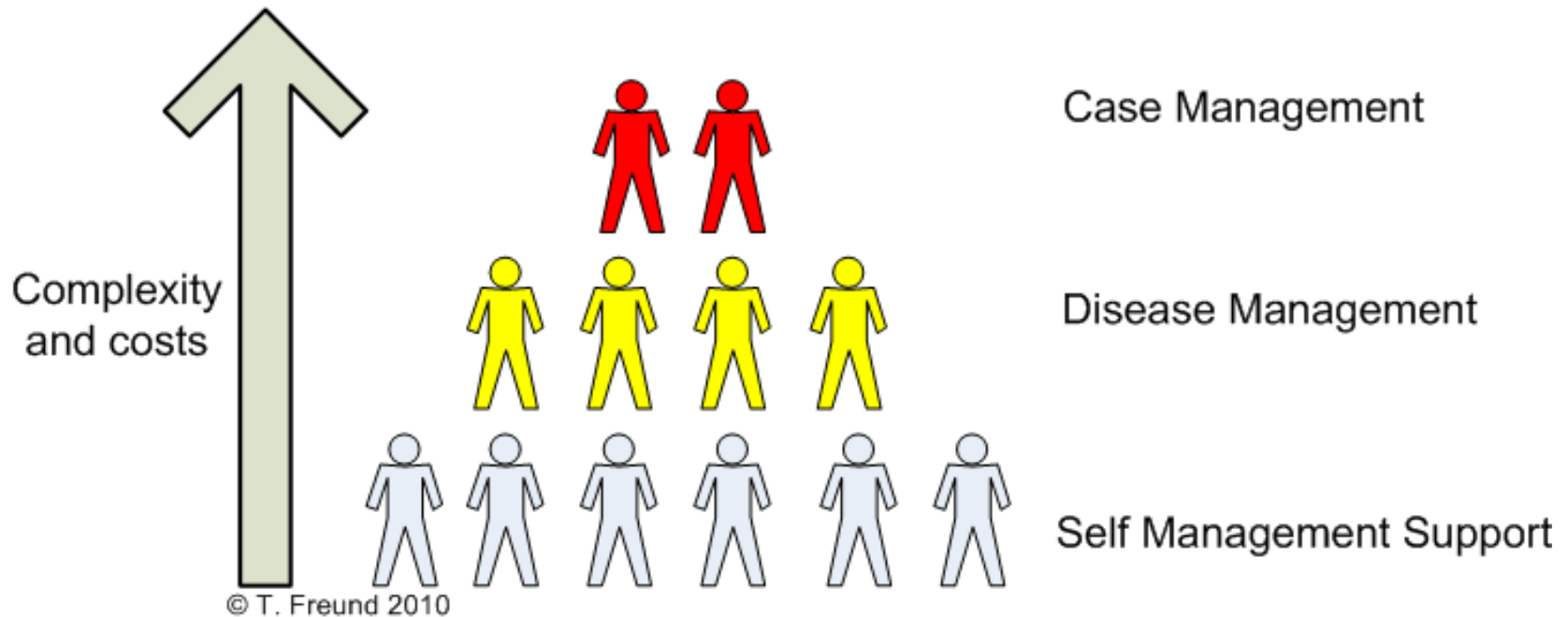




The challenge

- More people with chronic diseases
- More people with more than one chronic condition – beginning at 50+
- Chronic diseases demand structured, proactive and continuous care, the patient in the centre, not the structure
- How good are workforces (doctors, nurses, other professionals) prepared to do this?
- How good are our healthcare systems prepared?

Programs for patients with chronic diseases in Germany



Disease management programs in Germany

- Introduced in 2002 by federal law
- Directives by Federal Joint Committee (G-BA)
- Supervised by Federal Insurance Office (BVA)
- Extra payment for providers, sometimes reduction of premiums for patients
- Performed by General Practitioners and specialists, mainly in ambulatory care outside hospitals
- Providers and patients have to subscribe to programs
- Evidence-based contents, patient education (self management), evaluation and feedback

Disease management programs in Germany

Indication	Participants
Asthma bronchiale	884.109
Breast cancer	111.315
COPD	712.709
Diabetes mellitus Type 1	183.173
Diabetes mellitus Type 2	4.042.844
Coronary Heart Disease (incl. module on HF)	1.788.605
Total:	7.722.755

As per Dec. 31, 2015: Source: Federal Insurance Office (BVA), Patients: N=6.622.532

Preparations, but not yet decided upon:

Heart failure (HF), Rheumatoid Arthritis, Osteoporosis, Chronic Back Pain, Depression

Results

- No prospective randomised controlled trials
- Federal evaluation lacks follow up data but shows moderate positive associations with guideline adherence of doctors and clinical outcomes of patients
- Evaluations based on sick fund and patient survey data with follow up shows small to moderate positive effects on guideline adherence, quality of life, mortality and costs

Fuchs S, Henschke C, Blümel M, Busse R: Disease management programs for type 2 diabetes in Germany—a systematic literature review evaluating effectiveness. Dtsch Arztebl Int 2014; 111: 453–63. DOI: 10.3238/arztebl.2014.0453

Szecsényi J, Rosemann T, Joos S, Peters-Klimm F, Miksch A. German diabetes disease management programs are appropriate for restructuring care according to the chronic care model: an evaluation with the Patient Assessment of Chronic Illness Care instrument. Diabetes Care 2008;31:1150–1154

Laxy M, Stark R, Meisinger C, Kirchberger I, Heier M, von Scheidt W, Holle R: The effectiveness of German disease management programs (DMPs) in patients with type 2 diabetes mellitus and coronary heart disease: results from an observational longitudinal study. Diabetol Metab syndr 2015; 7:77

Other concepts aiming at improving care for patients with chronic diseases

- Regional integration of care services
 - small regions, promising effects
- Telemedicine
 - mixed effects so far
- Care pathways between primary care physicians and specialists (e.g. general practitioners and cardiologists) based on contracts (§73b and §73c social code book V)
 - First promising results



Multimorbidity – What are we talking about?

$$1 + 1 > 2?$$

Multimorbidity is rather a rule than an exception with patients 70+

A typical patient

Mrs. Meyer or Mrs. Yang

79 years old



- Hypertension, Diabetes, Osteoarthritis, Osteoporosis, COPD
- 12 separate medications (19 doses per day, 5 times)
- 14 non-pharmacological activities recommended

Result in:

- High risk of adverse events!
- High risk of hospitalisation
- Diverse and frequent monitoring requirements!
- Quality of life?
- Costs!

see Boyd et. al. JAMA 2005

What do multimorbid patients ask for?

Easy access to care providers (e.g. via telephone)

Regular assessment of risks

Individualized, evidence based care planning, goal-setting, continuous patient-provider relationship

Support for family care-givers

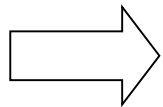
No avoidable hospitalisations



Multimorbidity care management

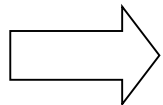
Selection/Composition of intervention elements?

- Depression and/or pain part in 80% of the most frequent (mutually exclusive) patterns of multimorbidity in high risk patients (Freund *Pop Health Man* 2012)



Combine generic und disease-specific contents

- Scripted telephone monitoring conducted by medical assistants is feasible and safe (Freund *Z Evid Fort Q* 2011)



Assessment, individualised care planning and monitoring are integral parts

Medical Assistant–Based Care Management for High-Risk Patients in Small Primary Care Practices

A Cluster Randomized Clinical Trial

Tobias Freund, MD; Frank Peters-Klimm, MD; Cynthia M. Boyd, MD; Cornelia Mahler, MA; Jochen Gensichen, MD; Antje Erler, MD; Martin Beyer, MA; Matthias Gondan, PhD; Justine Rochon, MSc; Ferdinand M. Gerlach, MD; and Joachim Szecsenyi, MD

Background: Patients with multiple chronic conditions are at high risk for potentially avoidable hospitalizations, which may be reduced by care coordination and self-management support. Medical assistants are an increasingly available resource for patient care in primary care practices.

Objective: To determine whether protocol-based care management delivered by medical assistants improves care in patients at high risk for future hospitalization in primary care.

Design: Two-year cluster randomized clinical trial. (Current Controlled Trials: ISRCTN56104508)

Setting: 115 primary care practices in Germany.

Patients: 2076 patients with type 2 diabetes, chronic obstructive pulmonary disease, or chronic heart failure and a likelihood of hospitalization in the upper quartile of the population, as predicted by an analysis of insurance data.

Intervention: Protocol-based care management, including structured assessment, action planning, and monitoring delivered by medical assistants, compared with usual care.

Measurements: All-cause hospitalizations at 12 months (primary outcome) and quality-of-life scores (12-Item Short Form Health Survey [SF-12] and EuroQol instrument [EQ-5D]).

Results: Included patients had an average of 4 co-occurring chronic conditions. All-cause hospitalizations did not differ between groups at 12 months (risk ratio [RR], 1.01 [95% CI, 0.87 to 1.18]) and 24 months (RR, 0.98 [CI, 0.85 to 1.12]). Quality of life (differences, 1.16 [CI, 0.24 to 2.08] on SF-12 physical component and 1.68 [CI, 0.60 to 2.77] on SF-12 mental component) and general health (difference on EQ-5D, 0.03 [CI, 0.00 to 0.05]) improved significantly at 24 months. Intervention costs totaled \$10 per patient per month.

Limitation: Small number of primary care practices and low intensity of intervention.

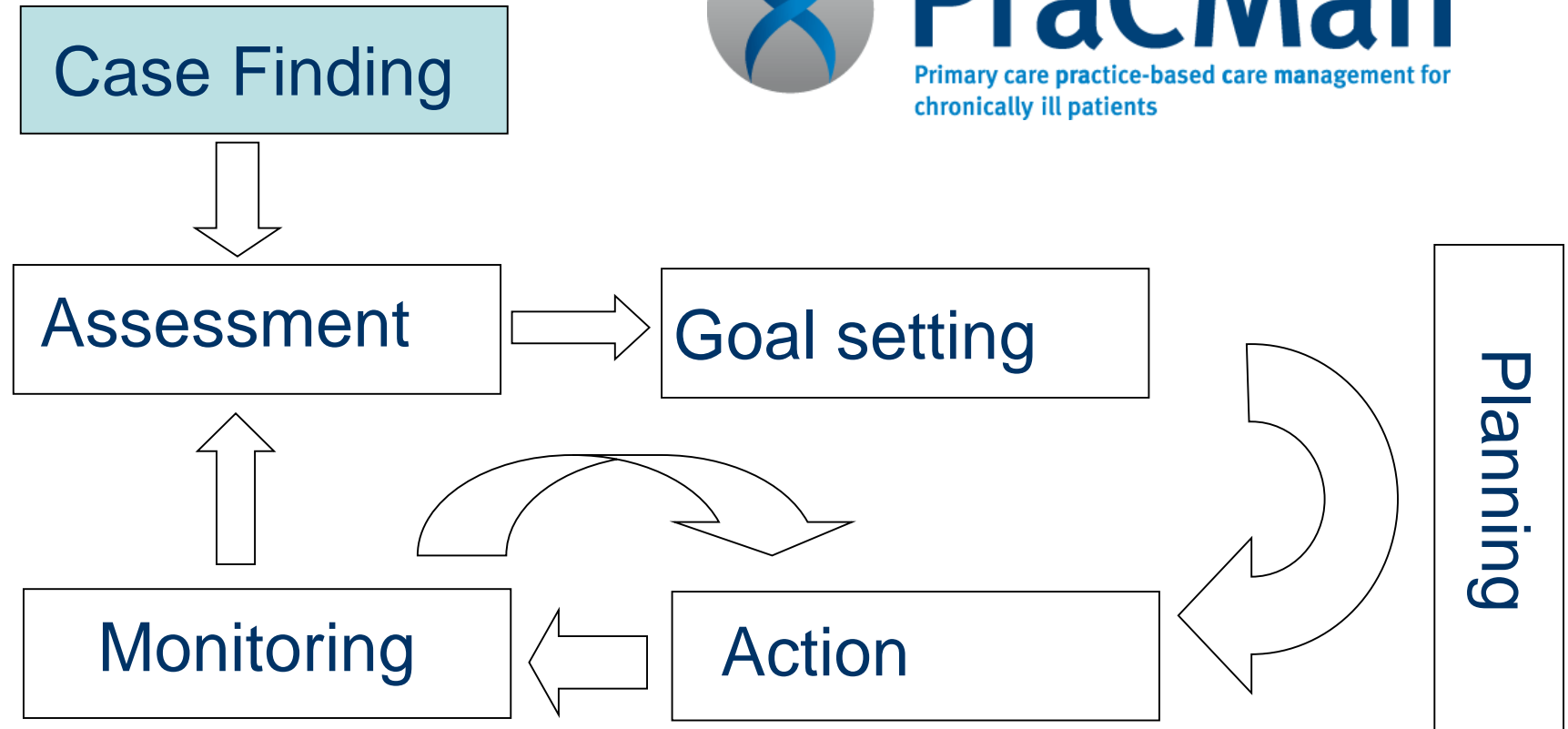
Conclusion: This low-intensity intervention did not reduce all-cause hospitalizations but showed positive effects on quality of life at reasonable costs in high-risk multimorbid patients.

Primary Funding Source: AOK Baden-Württemberg and AOK Bundesverband.



PraCMan

Primary care practice-based care management for chronically ill patients





PraCMan-Cockpit

Hausarztpraxis-basiertes Case Management





Verah
Musterfrau
0987654321

[Patientenansicht](#)[Verwaltung](#)[Terminübersicht](#)[Export](#)[Hilfe](#)[» Ausloggen](#)

Patientenansicht

Freddi Wunder, 1971-08-19

[Anderen Patient wählen](#)



	Status	Datum
Assessment 	✓	22.05.2014
PHQ-9	○	22.05.2014
Hilfeplan Teil 1 		
Ergebniszusammenfassung	✗	
Monitoringauswahl	✗	
Hilfeplan Teil 2 		
Zielvereinbarung	✗	
Monitoring 	✗	

[Bearbeiten](#)



Verwaltung

VERAH

Patient (Intake) Assessment 

Medikamentencheck


Sturzprävention

PHQ-9


Hilfeplan Teil 1 

Ergebniszusammenfassg.

Monitoringauswahl


Hilfeplan Teil 2  

Zielvereinbarung

Monitoring  

Monitoringauswahl

Dummy, Test, 30.03.1946

 Druckansicht Ergebniszusammenfassung  Assessment-BerichtDatum der Monitoringauswahl: 29.06.2014 

Vom Arzt auszufüllen

Der folgende Abschnitt bezieht sich auf Maßnahmen, die sich aus dem Vorliegen bestimmter Erkrankungen ergeben. Nach ärztlichem Ermessen muss der Inhalt für das Monitoring für das kommende Jahr ausgewählt werden.

Immer:

1. Allgemeines Modul

- | | | |
|---|---|--|
| <input checked="" type="checkbox"/> Infekt (A4) | <input checked="" type="checkbox"/> Schwindelgefühle (A5) | <input checked="" type="checkbox"/> Sturz (A7) |
| <input checked="" type="checkbox"/> Arzt/Krankenhaus (A8) | <input checked="" type="checkbox"/> Medikamente (A9) | <input checked="" type="checkbox"/> Medikamenteneinnahme (A10) |
| <input checked="" type="checkbox"/> Schmerzen (A11) | <input checked="" type="checkbox"/> Erschöpfung (A12) | |

Optional:

- ☒ Blutdruck-Monitoring ist sinnvoll (A6)

Messfrequenz und Zielwerte:

RR-Messfrequenz: x - Bitte wählen - Obere Grenzwerte: Systolisch / Diastolisch mmHGUntere Grenzwerte: Systolisch / Diastolisch mmHG

Notfallplan Blutdruck ausdrucken



Notfallplan Blutdruck

Alarmzeichen:

- **Systolischer Blutdruckwert (1. Wert) liegt über dem festgelegten Grenzwert**
- frühmorgendlich auftretender Kopfschmerz, besonders im Bereich des Hinterkopfes
 - Herzklopfen, Herzrasen, unregelmäßiger Herzschlag
 - Schwindel, Nervosität, Ohrensausen
 - Nasenbluten
 - Brustschmerzen
- starke Luftnot bei Belastung, etwa beim Treppensteigen

Was können Sie selber tun?

Bei einem Blutdruck oberhalb
von _____ mmHg

Nehmen Sie _____

Und messen nach Minuten noch einmal nach.
ist der Blutdruckwert dann weiterhin höher als
_____ mmHg



Rufen Sie uns an!

Tel: _____ oder _____

Monitoring: „Traffic Light“ system

A3 Haben Sie ein NEU aufgetretenes einseitiges Schwächegefühl in einem Arm und/oder in einem Bein?

☒ Ja ☐ Nein

Wie lange haben Sie dieses Schwächegefühl schon?

☐ Seit heute

☐ Seit Tagen

☒ Seit mehreren Wochen oder länger

A4 Hatten Sie in den letzten Tagen Anzeichen eines Infekts?

Erkältungszeichen:



Vorhanden



Vorhanden, aber bereits in Behandlung



Nicht vorhanden

Durchfall oder Erbrechen:



Vorhanden



Vorhanden, aber bereits in Behandlung



Nicht vorhanden

Brennen beim Wasserlassen:



Vorhanden



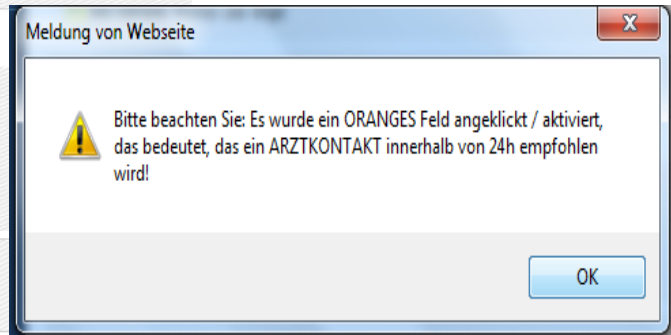
Vorhanden, aber bereits in Behandlung



Nicht vorhanden

A5 Hatten Sie in den letzten Tagen vermehrt Schwindelgefühle oder war Ihnen schwarz vor Augen?

☒ Ja ☐ Nein



The way forward

- Further development of new disease management programs for single chronic conditions
- Roll- out of care-management in primary care practices for patients with multimorbidity (software assisted process management, telephone-monitoring)
 - Baden-Württemberg, Thuringia, other federal states



Danke für Ihre Aufmerksamkeit

