Framing the strategy: value of segmentation and stratification in primary care

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MODELS OF CARE FOR HIGH-NEED PATIENTS

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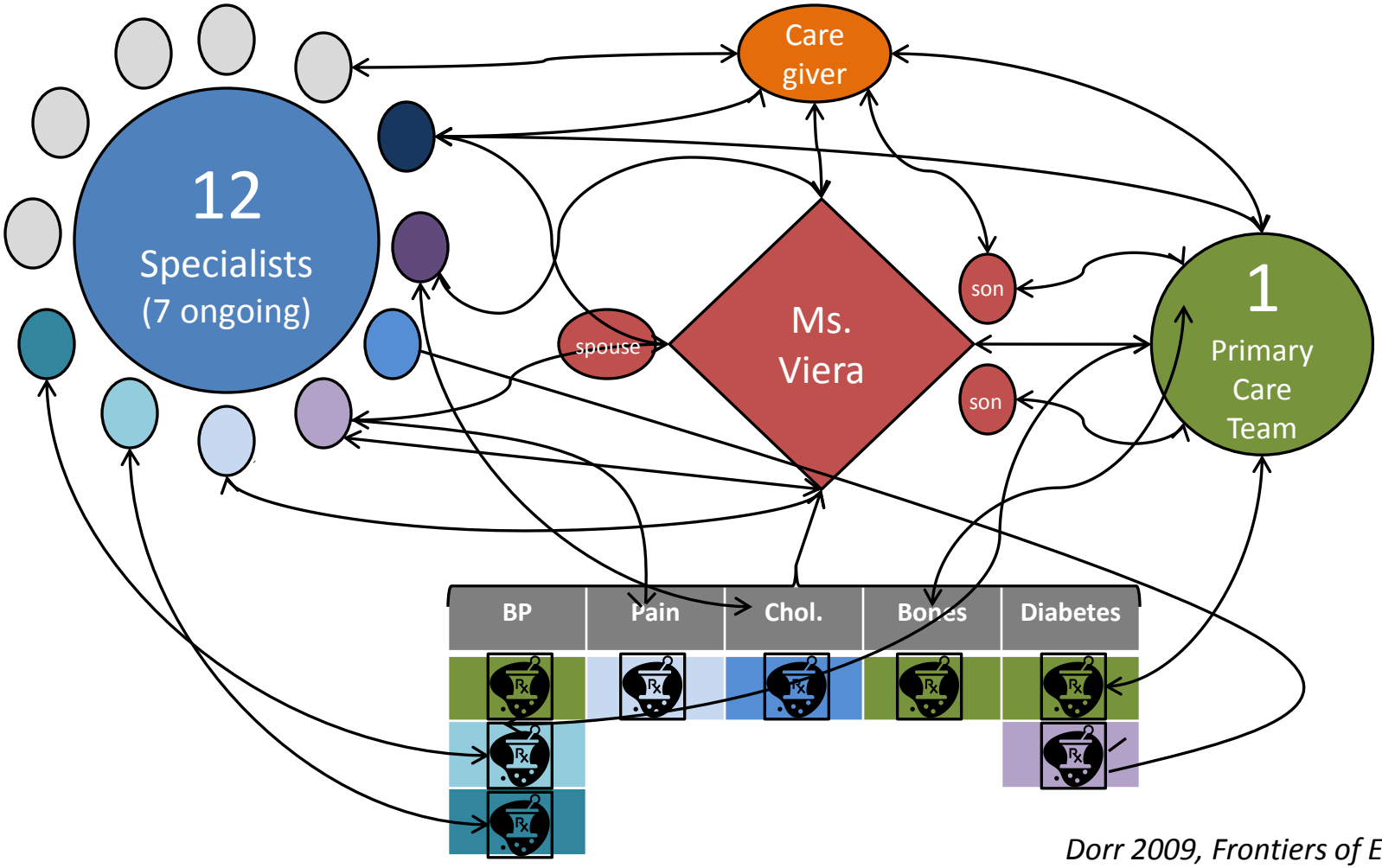
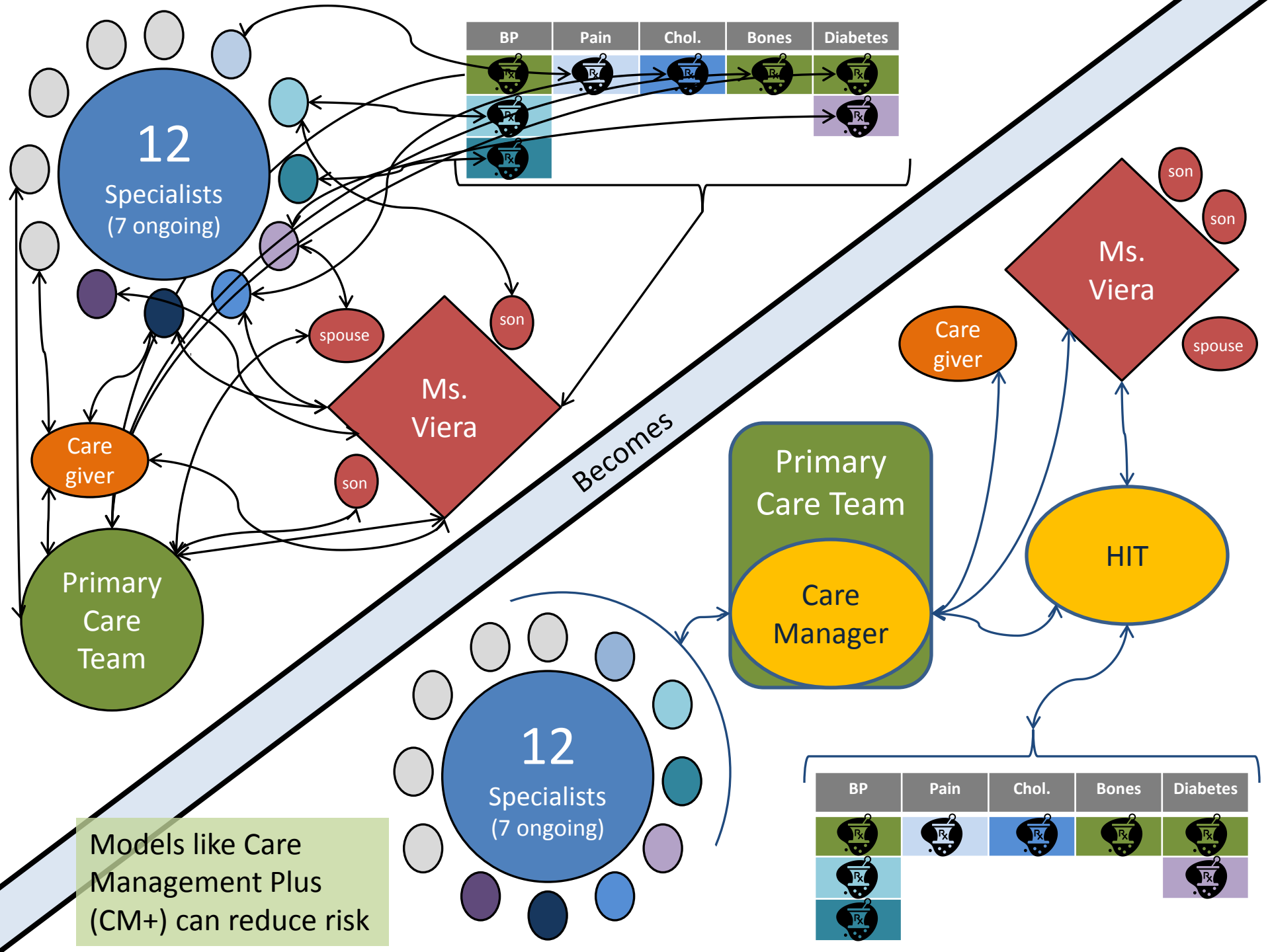
High cost, high needs patients are at high risk from many issues: a brief illustrated narrative



Dorr 2009, Frontiers of Engineering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Specialists
(7 ongoing)
BP
Pain
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12
Specialists
(7 ongoing)
BP
Pain
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Diabetes
Models like Care Management Plus (CM+) can reduce risk

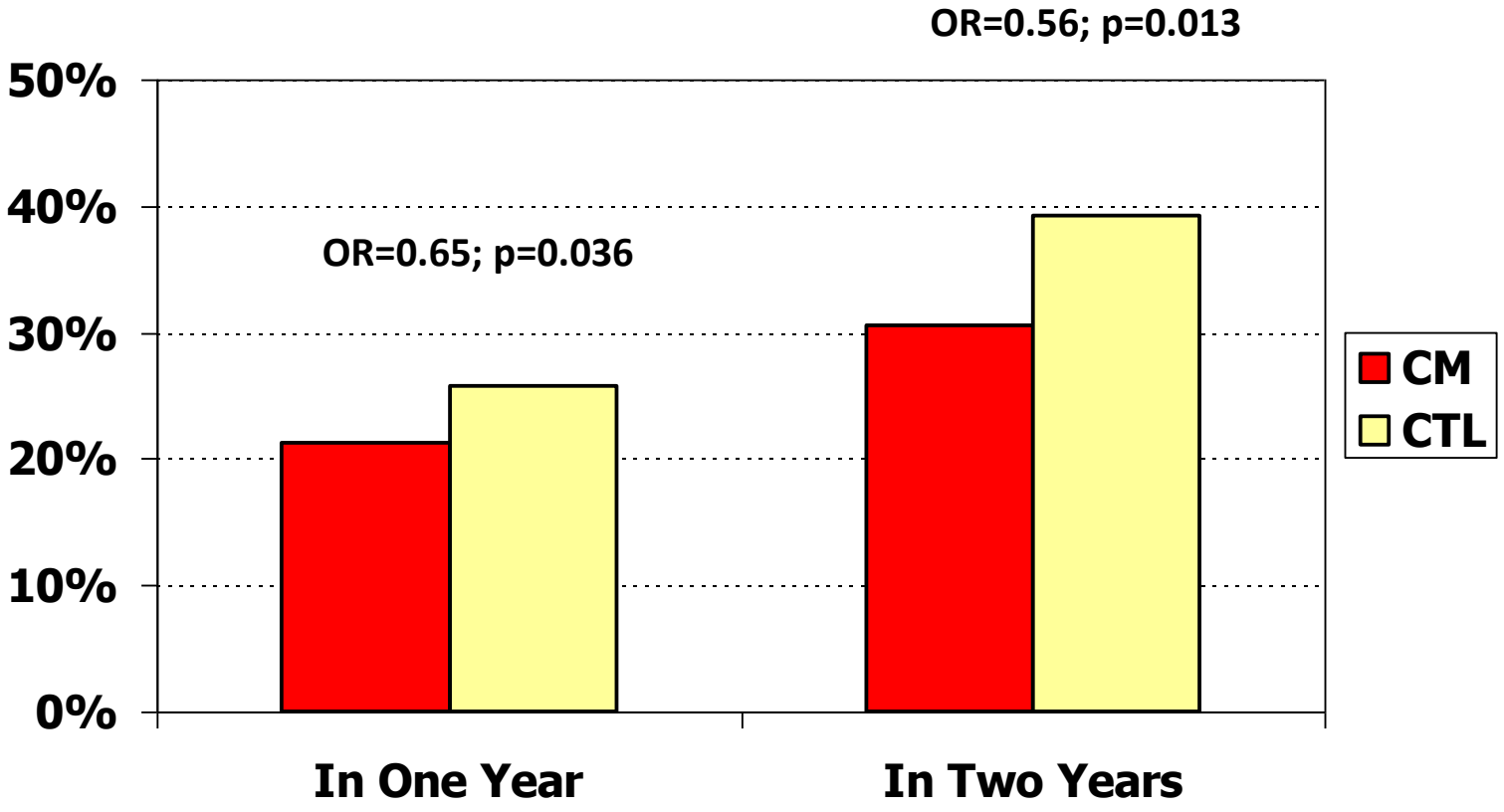
In a controlled clinical trial, early mortality was reduced … unevenly

Variable	Time	CM+	Control	Difference
All Patients		(N=1,144)	(N=2,288)	
	at 1 year	6.5%	9.2%	-2.8%
Deaths	at 2 years	13.1%	16.6%	-3.4%
Diabetes subset		(N=557)	(N=1114)	
	at 1 year	6.2%	10.6%	-4.4%
Deaths	at 2 years	12.9%	18.2%	-5.3%

‘Diabetes’ is an insufficient descriptor, these are older people with multiple chronic conditions

Dorr, JAGS, 2008

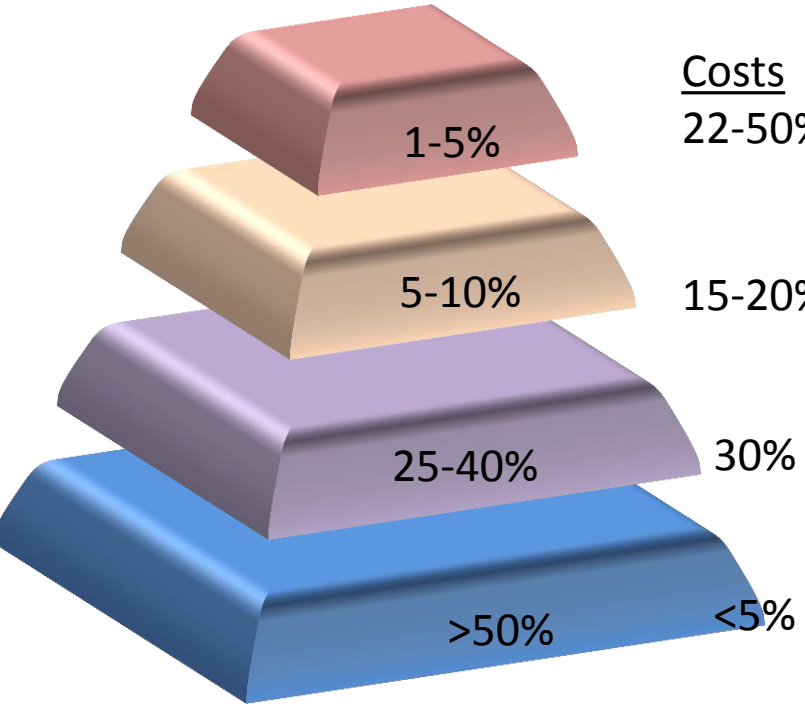
As was hospitalization – high risk patients had greatest risk amenable to change



Improvement in productivity and patient and provider satisfaction was seen, leading to increased investments.

Dorr, JAGS, Dec 2008

Stratification, segmentation, and potential opportunities

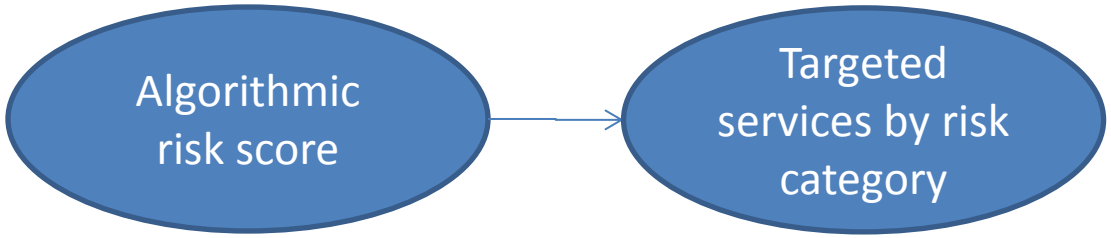


	Risk	Definition (e.g.)
Costs 22-50%	Highest	Multiple Social, Behavioral, Mental, and Chronic issues
15-20%	High	Severe/ uncontrolled illness or multiple controlled issues
30%	Moderate	Controlled, stable issues
<5%	Low	Preventive needs or limited chronic issues

What drives outcomes? And what risk is amenable to change?

Many factors, including functional status, social determinants (especially social support), responsiveness, and (finally) multiple (especially discordant) illnesses.

Integrating data and clinical intuition at the point-of-care: use of the EHR



EHR integration

History – separate system

Now - Rule calculation engine in EHR **->** prediction in chart

History – Hand entered

Now – Upload from external sources through APIs or EHR tools

<u>In the EHR: use advanced decision support and COMBINE data</u>

Add to standard preventive and chronic health maintenance workflow (Very high risk -> proactive follow-up needed)

Combine EHR data sources to reduce lag and improve prediction; ***by itself, individual EHR data is not great***

Ongoing barriers and progress

Barrier	Progress
Risk stratification and segmentation is challenging across populations	More work on the ground is occurring and capacity is growing (e.g., CPC, CCM codes)
Tailoring care to need	Mixed results from previous studies; still the frontier -> **need more patient and caregiver voice**
Health care and data are fragmented, reducing the ability to predict and improve	Interoperable standards are advancing (FHIR)*
EHRs don't do population segmentation and data is poor	More integration of population health, more effort in other apps (SMART on FHIR); better data is coming

* CPC = Comprehensive Primary Care; CCM = Chronic Care Management; FHIR = Fast Interoperable Healthcare Resources

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