

HAVE ICD-10 CODING PRACTICES CHANGED SINCE 2015?

S35: PHENOTYPING METHODS

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DISCLOSURE

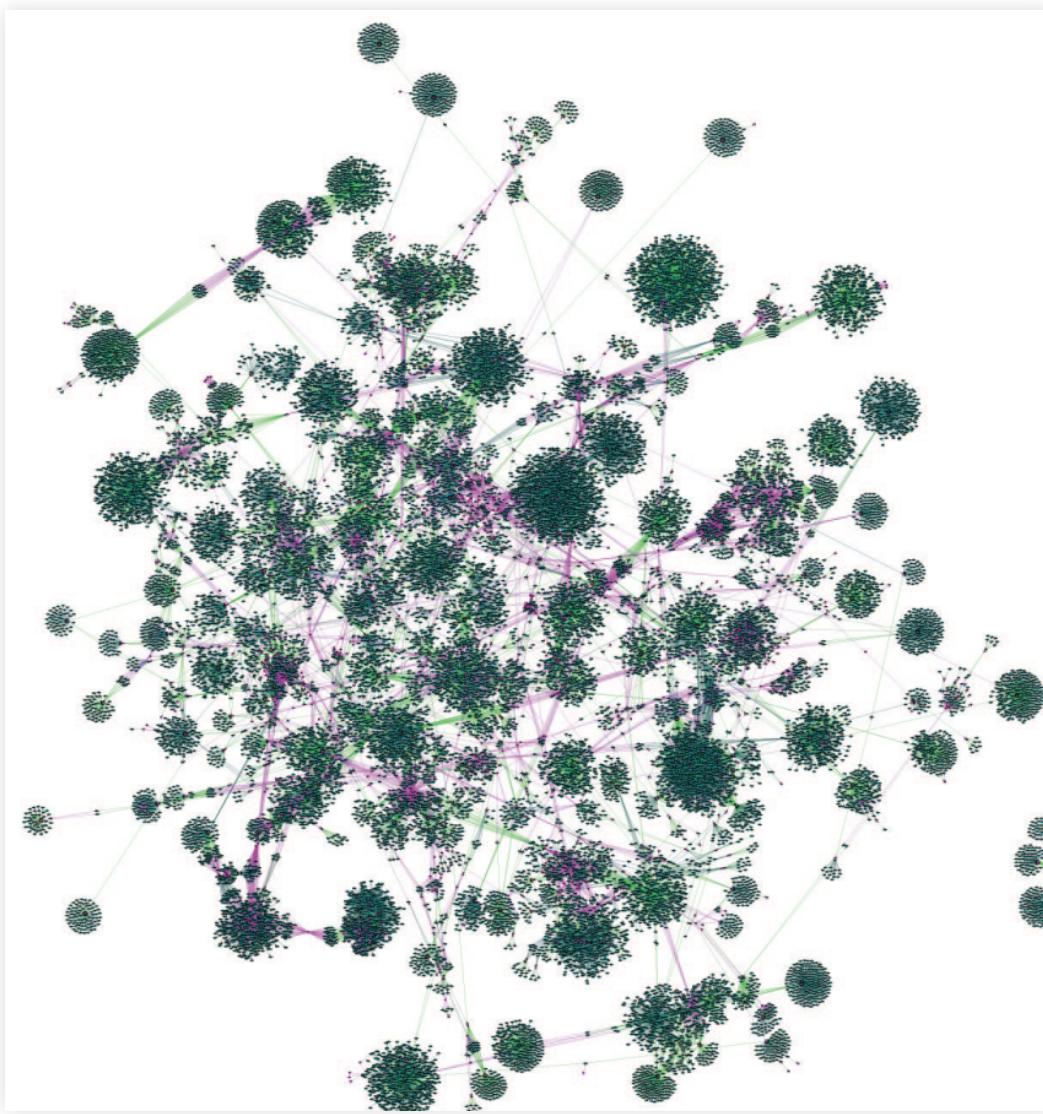
I am employed by IBM

LEARNING OBJECTIVES

- Talk about shifts in coding practices
- Identify shifts from data
- Harden analytics against this drift

HISTORY OF THE ICD-10 TRANSITION

- Necessary modernization  or looming disaster 
- Delayed implementation  17 & enforcement 
- Education  and implementation costs 



Network analysis of ICD-9 to ICD-10 mapping

GRANULARITY, LATERALITY, & SPECIFICITY

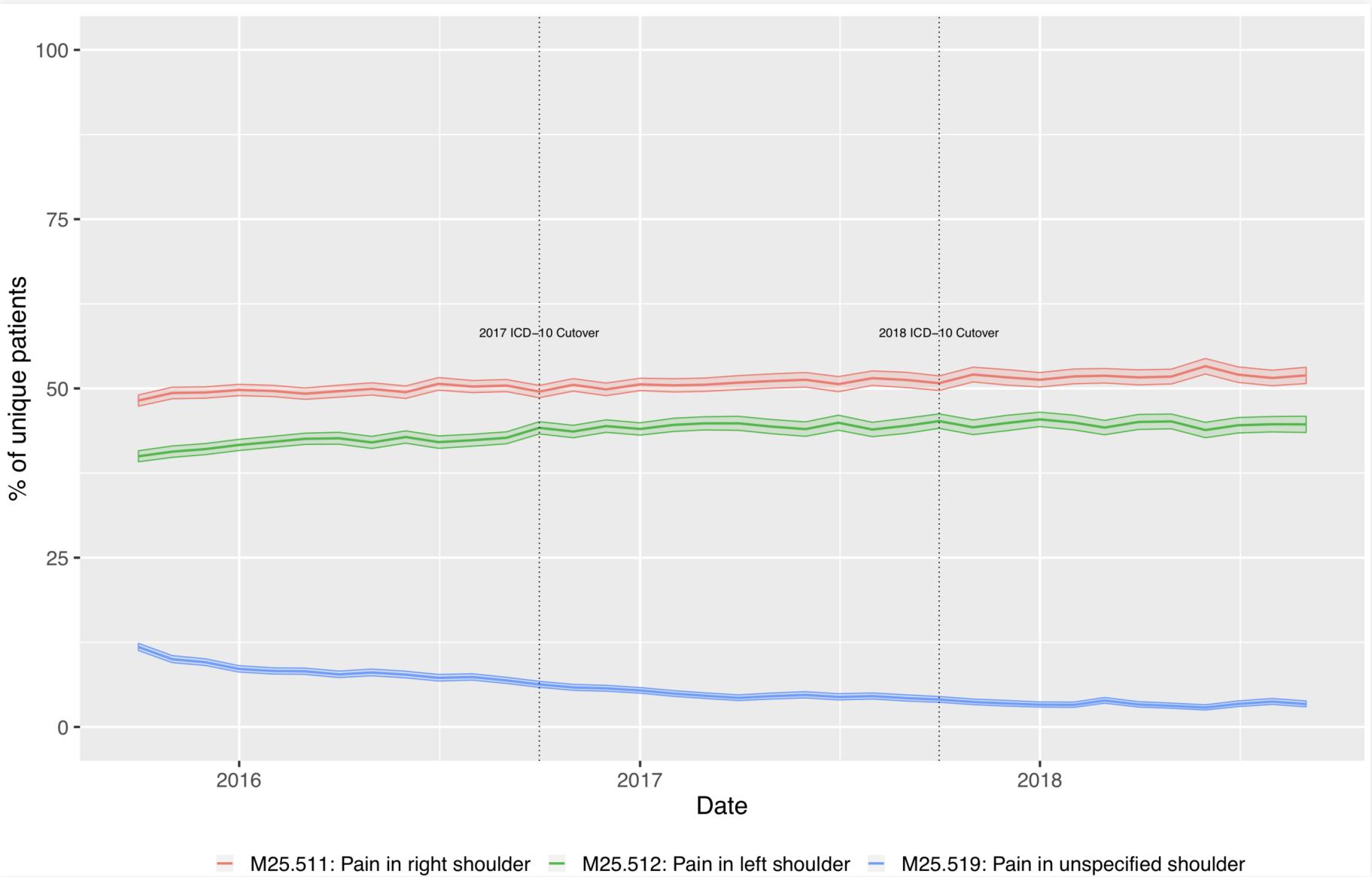
EXAMPLE: SALMONELLA INFECTIONS

Header	Code	Flag	
A02.2	A02.20	Unspecified	unspecified
	A02.21	Meningitis	non-novel
	A02.22	Pneumonia	non-novel
	A02.23	Arthritis	non-novel
	A02.24	Osteomyelitis	non-novel
	A02.25	Pyelonephritis	novel
	A02.29	Other infection	other

SECOND-ORDER CODING EFFECTS

LEARNING CURVES

- Improved Accuracy Over Time  (Januel et al, 2011)
- Training Improves Coding  (Dyers et al, 2017)
- Opportunities for Improvement 
(Romano & Hovey, 2016)

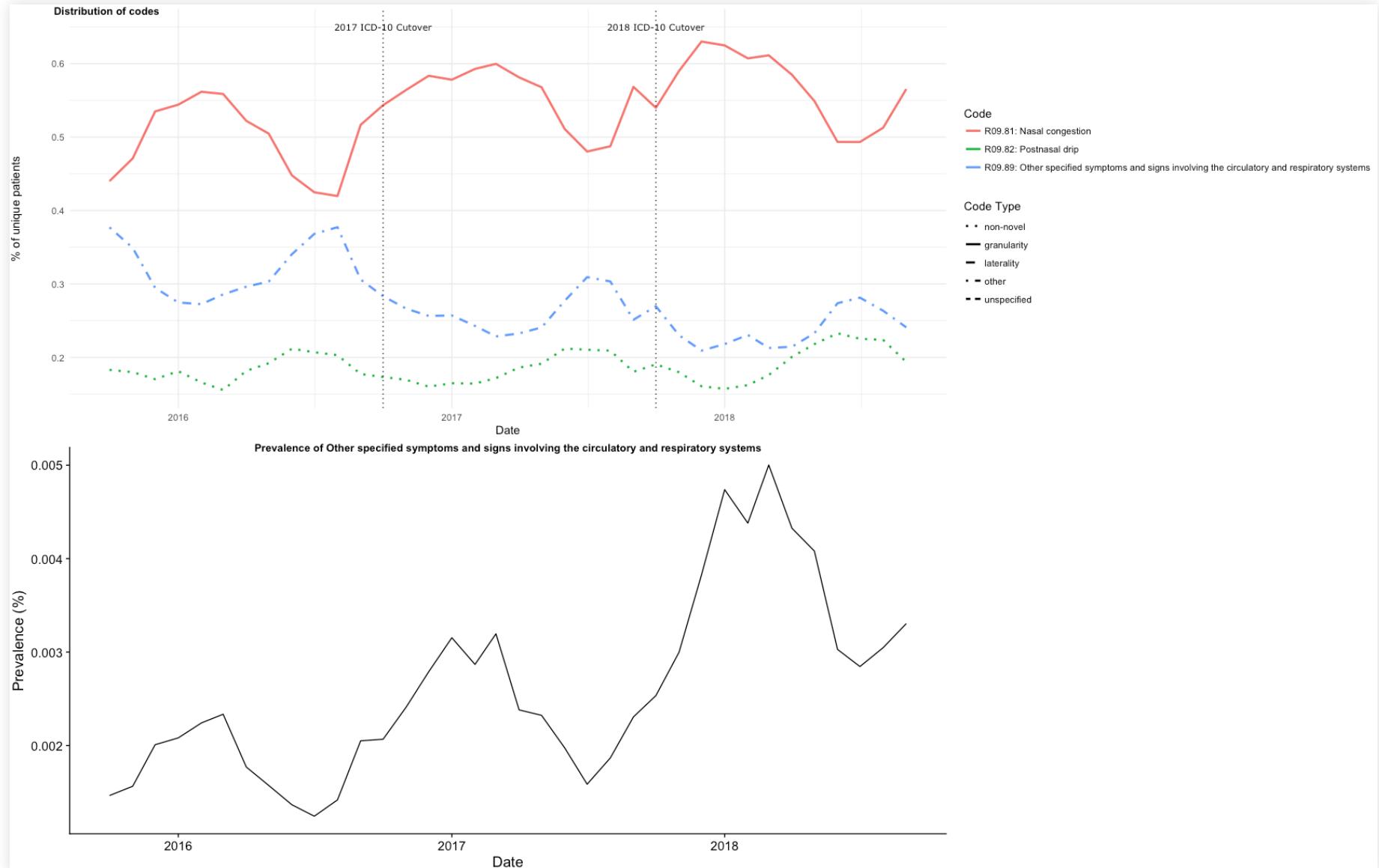


Yes, we observe learning curves since 2015

Header	Description	Type	Δ %
M25.51	Pain in shoulder	Laterality	+8.4%
M25.55	Pain in hip	Laterality	+8.9%
M25.56	Pain in knee	Laterality	+7.0%
M79.60	Pain in limb	Laterality	+9.7%

Header	Description	Type	Δ %
I25	CHD	Granularity	+5.8%
Z12.3	Mammograms	Granularity	+9.9%
R09.8	Resp. Symptoms	Granularity	+7.2%

SEASONALITY



Need to correct for seasonal allergies

CODING VOLUME

HEALTH AFFAIRS > VOL. 38, NO. 1: SUBSTANCE USE, PAYMENT & MORE

Decreases In Readmissions Credited To Medicare's Program To Reduce Hospital Readmissions Have Been Overstated

Christopher Ody, Lucy Msall, Leemore S. Dafny, David C. Grabowski, and David M. Cutler

AFFILIATIONS ▾

PUBLISHED: JANUARY 2019 No Access

<https://doi.org/10.1377/hlthaff.2018.05178>

Header	Description	Type	Δ %
M17.1	Osteoarthritis	Laterality	-3.7%

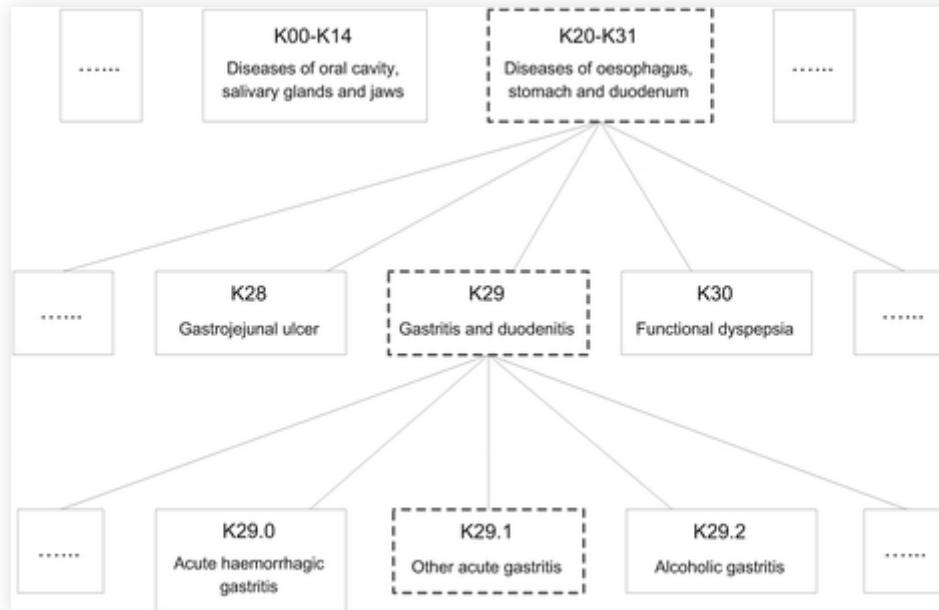
UNCOVERED CLINICAL CONTENT

ICD-10-PCS FY 2020 Version				
<i>FY 2020 Update Summary</i>				
Change Summary Table				
2019 Total	New Codes	Revised Titles	Deleted Codes	2020 Total
78,881	734	2	2,056	77,559

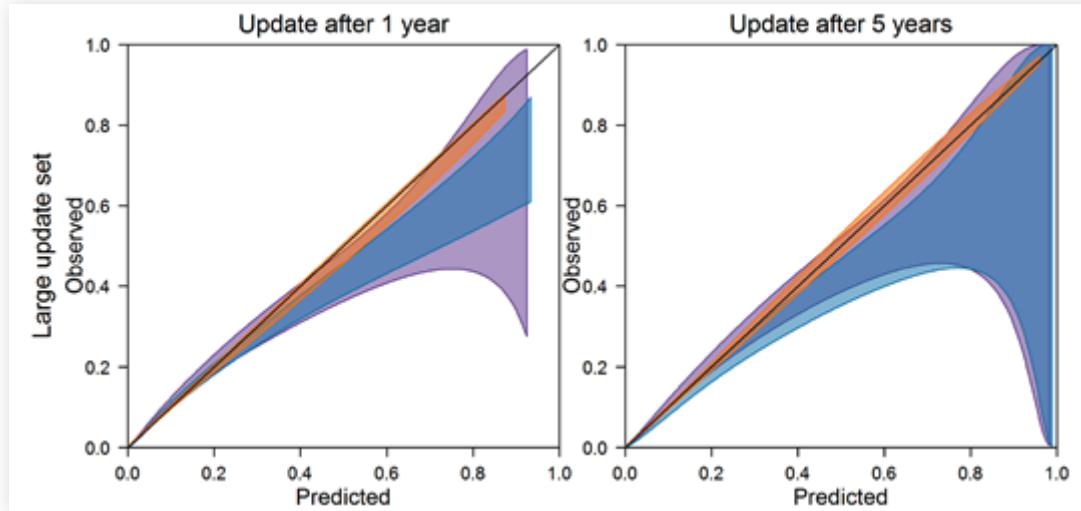
Header	Description	Type	Δ %
E11.6	Type 2 DM	Granularity	-10.8%
Z79.81	Drug Use	Granularity	-2.8%
D50.1	Iron deficiency	Other	—

IMPLICATIONS & RECOMMENDATIONS

1. When applicable, group related codes together – and validate your groups.



2. Retrain models regularly, including feature selection.



*3. When using risk-adjusted measures,
consider validating & adjusting for
coding volume.*



SUMMARY

- Codeset transitions produce learning curves
- Use related code groups to identify trends
- Follow best practices to avoid model drift

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