LEARNING HOW TO GET LUCKY: ENABLERS OF HIGH PERFORMING PRIMARY CARE TEAMS

Carol Mulder on behalf of and with thanks to the members of the

Association of Family Health Teams of Ontario

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Disclosure

- Presenter: Carol Mulder
- No relationships with commercial interests
- No commercial support
- No conflict of interest

PURPOSE

- There is increasing interest and investment in interdisciplinary primary care teams
  - 28 teams expanded including 4 brand new teams launched
- There is also increasing interest in understanding how teams work to improve care
- AFHTO members have been measuring and tracking their progress
  - D2D now into its 7th iteration in nearly 4 years
- Some teams are improving – they're not just lucky!

METHODOLOGY

- Observational study of interdisciplinary primary care teams
  - Descriptive and multivariate linear regression
- Setting: 184 interdisciplinary primary care teams that belong to the Association of Family Health Teams of Ontario (AFHTO) serving approximately 25% of Ontario
- Analysis:
  - Descriptive statistics
  - Bivariate correlations
  - Multivariate linear regression, based on correlations analysis

Sample

- Time frame: 6 iterations of D2D from October 2014-March 2018
  - N > 100 teams for each iteration
- Outcome measures: composite measure of quality and per capita healthcare system costs (various flavours)
- Potential contributing factors:
  - Patient experience: eg involved in decisions, courtesy of office staff
  - Patient characteristics: eg income, immigration
  - Team characteristics: eg rurality, quality improvement activities
  - Preventive measures: eg immunization, cancer screening
  - Healthcare utilization: eg readmissions

Categorical variables	n	Percent
Hospital-EMR integration	93	78.5
Rurality	93	37.6
Teaching status (academic)	93	15.1
Single-site design	93	33.3
QI physician champion	68	76.5
Frequent conversations with physicians	65	76.9
Governance by physician board	69	46.4
Continuous variables	**n**	**Mean**
Adjusted overall per capita cost ($)	79	2477.49
Per capita services cost ($)	79	1335.70
Patient panel size	73	20848
SAMI	89	1.0379
Quality composite score (max 100)	91	56
IHP FTE per team	27	18
Patients over 65 years	68	20.1
Recent immigrants	62	4.5
Patients in low income quintile	69	36.6
QI activity score (max 5)	39	1.9

Descriptive statistics

- Variables involved in multivariate analysis only

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Multivariate regression

- ***Sample***
  - 68 rural and 100 urban teams
  - possibly under-powered due to number of variables explored for each group
- ***Dependent measures***
  - Quality
  - Overall per capita healthcare system costs
  - Per capita services costs
    - specialists
    - diagnostic testing
    - home care services
- ***Independent measures***
  - Rurality
  - Teaching status
  - Patient panel size
  - Patient socioeconomic status: percent of seniors, low-income patients on panel
  - Patient complexity
  - Electronic information integration with hospital (eg HRM or similar)
  - Number of sites
  - Governance by physician-based board
  - Quality (for cost regressions)
- ***Excluded independents***
  - Quality improvement activities
  - Physician engagement: conversations about performance, physician champion for QI
  - Interdisciplinary staff complement

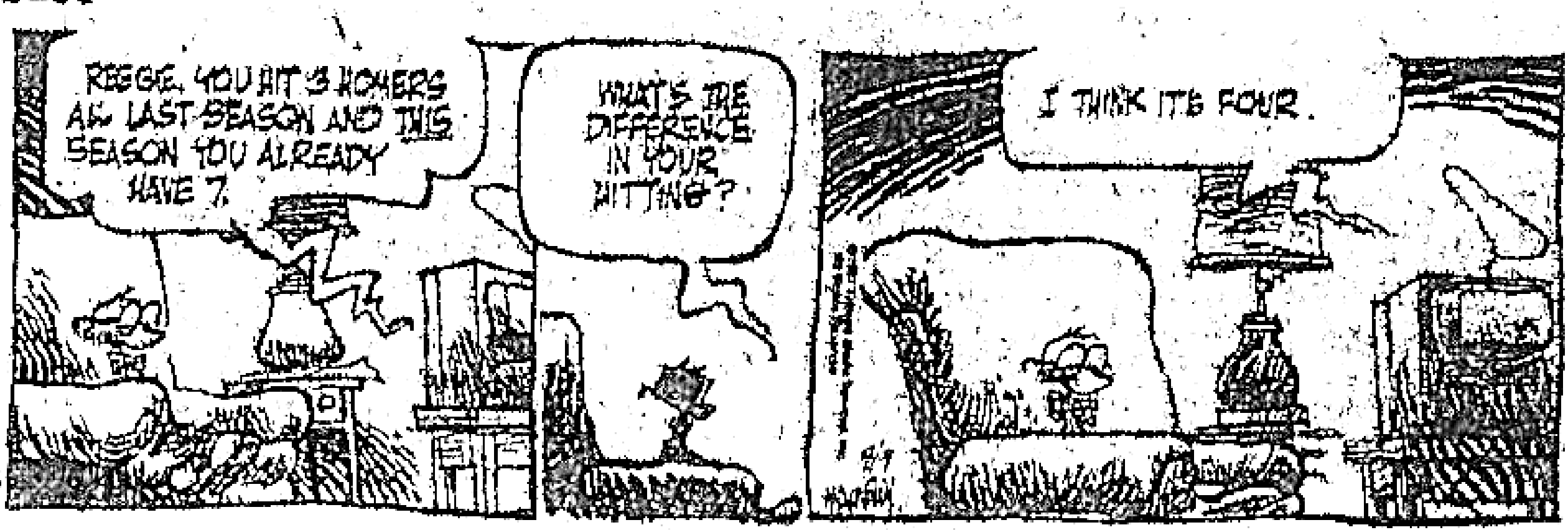
Results: Multivariate regression

Outcome	Group	Selected indicators	*R* *p=0.000*	Sample size
quality	rural	**hospital-EMR integration, % seniors in patient panel**, teaching status of team, single site (forced)	0.372	68
	urban	patient panel size, hospital-EMR integration, single site (forced)	0.186	100
cost	rural	% seniors in patient panel, single site (forced)	0.224	68
	urban	SAMI, **Quality**, single site (forced)	0.368	100

Limitations/next steps

- Increase power: maintain D2D participation
- Increase consistency of data capture, especially for QI activities
- Deepen analysis with qualitative data about team processes
- Leverage research partnerships
  - Western: qualitative study
  - Queens: expanded quantitative analyses
  - ICES: cost trends over time

Shoe


REGGIE, YOU HIT 3 HOMERS ALL LAST SEASON AND THIS SEASON YOU ALREADY HAVE 7.
WHAT'S THE DIFFERENCE IN YOUR HITTING?
I THINK IT'S FOUR.

Conclusion

- Teams with high performance are not just lucky.
- Some factors associated with higher quality/lower cost may be out of the team's control
  - Rurality, teaching status, panel size
- Others are at least hints for further exploration or even change
  - single vs multi-site design
  - EMR management

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Thank you

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appendix

Outcome: quality

Rural	B	Std. Error	Sig.	R Square
(Constant)	83.526	7.494	0.000	0.372
singlesite	-4.646	2.949	0.120	
hosp_emr_num	-13.306	3.670	0.001	
seniors	-1.035	0.317	0.002	
teaching_num	6.065	2.713	0.029	
Urban	B	Std. Error		R Square
(Constant)	40.506	3.412	0.000	0.186
singlesite	5.667	3.751	0.134	
pts_servednum	0.000	0.000	0.000	
hosp_emr_num	7.956	3.337	0.019	

Outcome: cost for services

Rural	B	Std. Error	Sig.	R Square
(Constant)	679.460	184.765	0.000	0.224
singlesite	35.567	78.175	0.651	
seniors	35.787	8.263	0.000	
Urban	B	Std. Error		R Square
(Constant)	321.348	311.825	0.305	0.368
singlesite	183.221	65.951	0.007	
sami_scorenum	1390.637	290.095	0.000	
QRU_overall	-6.795	1.702	0.000	