London

Family Health Team

Respiratory Care: From Case Finding to Rehab and Comprehensive Partnership

London Family Health Team

Amherstburg Family Health Team

Stratford Family Health Team

London

Family Health Team

Case Finding and Managing Chronic Obstructive Pulmonary Disease

London Family Health Team

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Presenter Disclosure

- **Presenters:** Dr. Cathy Faulds, Miranda Ross, Emily Stoll
- **Relationships with commercial interests:**
  - **Grants/Research Support:** none, none, none
  - **Speakers Bureau/Honoraria:** none, none, none
  - **Consulting Fees:** none, none, ~$500 from Pfizer to Emily for educating primary care providers on EMR use
  - **Other:** none, none, none

Disclosure of Commercial Support

- **This program has received no financial support.**
- **This program has received no in-kind support.**

- **Potential for conflict(s) of interest:**
  - No potential conflicts of interest.

Mitigating Potential Bias

- This program is not funded by any outside sources.
- No particular pharmaceuticals will be discussed in this presentation.

Key Messages

- **Why did we need a COPD program?**
  1. System data indicated that COPD patients were going to the ER instead of being managed in primary care
     - Seen in Primary Care Physician/Group Practice Report[1]
  2. Physician rosters were low for roster size
     - We didn't know our COPD patients

- **How did we build a COPD program?**
  1. Case Finding through use of Thoracic Screen[2]
  2. Use of EMR tools and ongoing data review
  3. Team approach to building a chronic disease program

Benefits

PATIENT

- Improved quality of life through earlier diagnosis (shown through improved MRC score)
- Streamlined care through additional management at the primary care level

PHYSICIAN

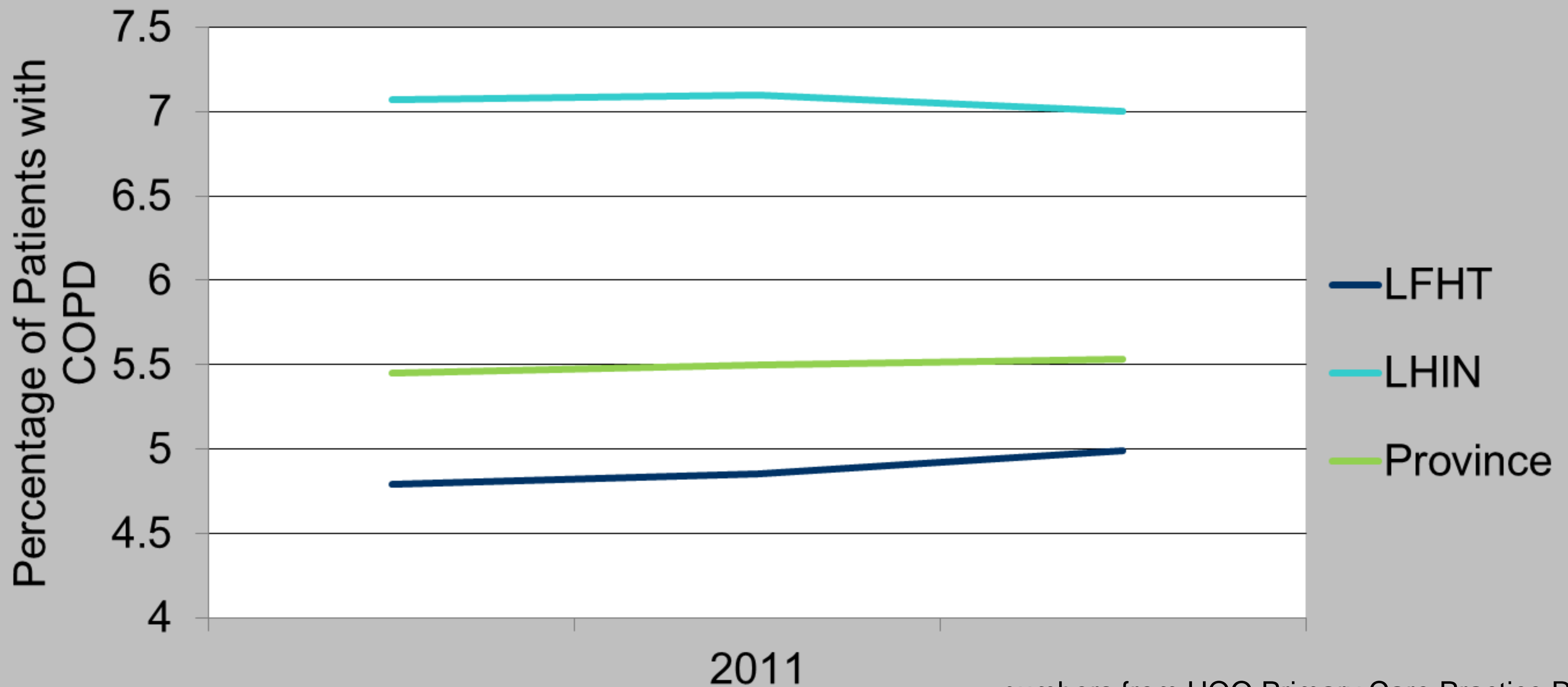
- Comprehensive care that allows for delivery within team
- Results in increased efficiency, decreased time investment, and increase in the physician's supply

SYSTEM

- Decreased ER usage and hospital admissions
- Decreased referrals to specialists

Case Finding

- Needed to identify entire roster – **numbers low** for roster size



numbers from HQO Primary Care Practice Report[1]

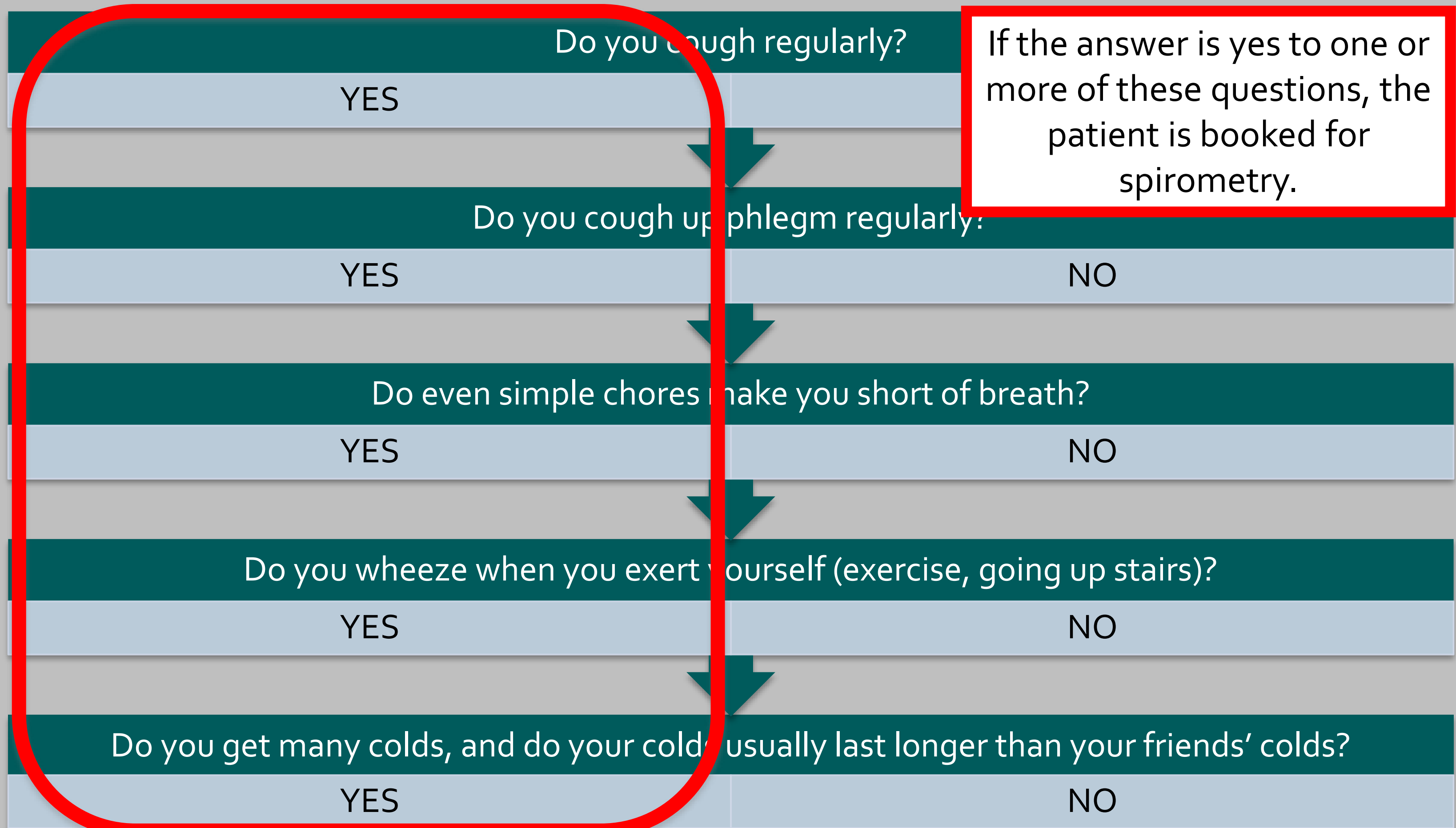
Case Finding

- Standardized EMR coding important in harnessing patients – **491 code** used

- Patients identified and screened with a two-part process
  1. Thoracic Screen[2]
  2. Spirometry

Case finding was carried out on all patients age 40+ who were current or ex-smokers.

Thoracic Screening



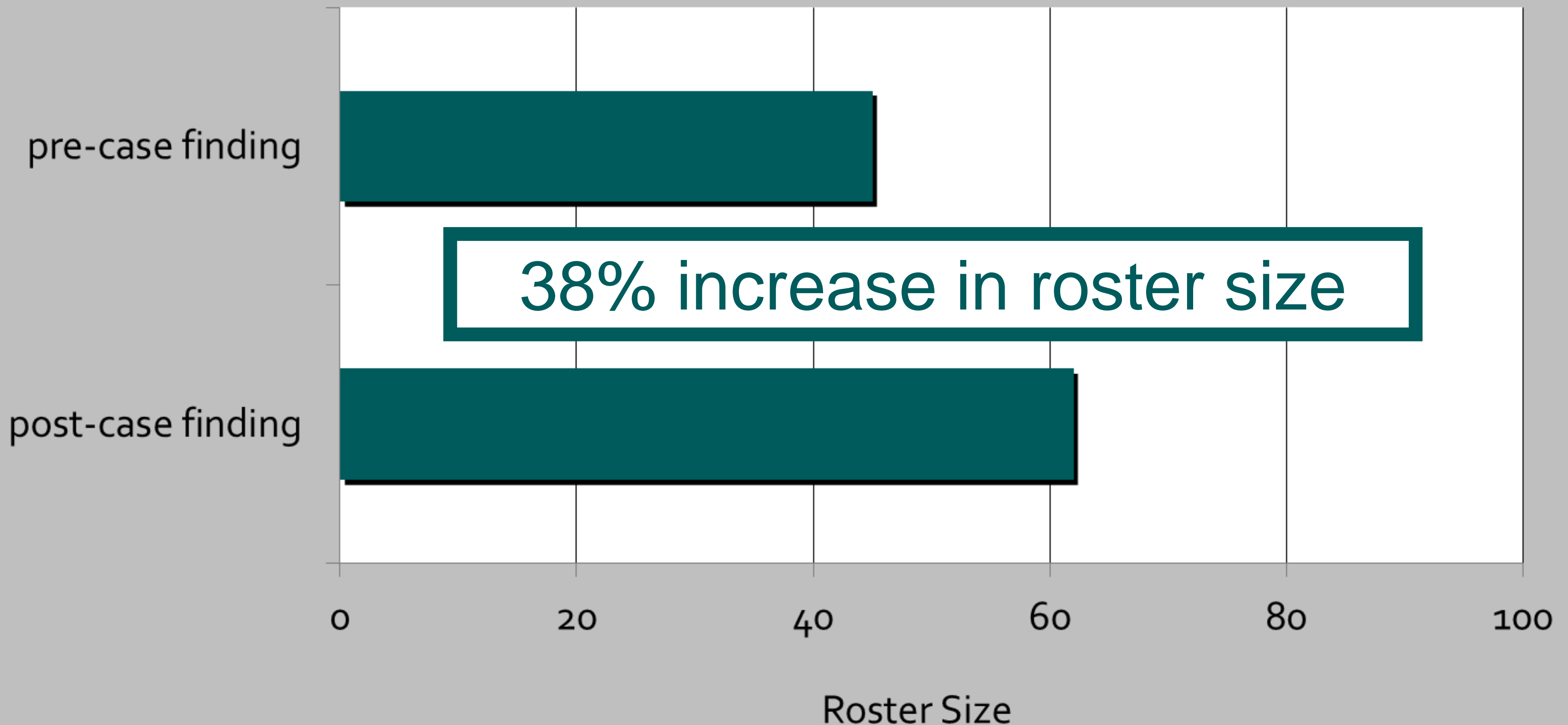
Spirometry for Diagnosis

- Patients with a negative Thoracic Screen[2] were recalled in three years
  - **No literature that investigates appropriate timeline**

- Patients with a positive Thoracic Screen[2] had spirometry

- Due to in-house spirometry machine **98%** of spirometry is now done in office

Case Finding Results



Building a Chronic Disease Program

- Wagner's Model of Chronic Disease Implementation[3]
  - Not disease specific
- Based on guidelines[4] and evidence-based medicine
- Determined appropriate methods of treatment, timelines for screening and management, and evidence based measures to focus on
- Built clinical EMR and data tracking tools

EMR Tools

- **COPD Screening Template**
  - Used for initial screening
- **COPD Management Template**
  - Used for standard COPD visit
- **COPD Flowsheet**
  - Collects summarized measures over multiple visits

the LFHT uses Nightingale EMR

EMR Tools – Sample Template

COPD Screening – Thoracic Screening

COPD Screening - Thoracic Screen

○ Narrative View ◉ Template View

- ☐ Do you cough regularly?
- ☐ Do you cough up phlegm regularly?
- ☐ Do even simple chores make you short of breath?
- ☐ Do you wheeze when you exert yourself?
- ☐ Do you get many colds?
- ☐ Do your colds last longer than your friends colds?
- ☐ Smoker counselled to quit
- ☐ Ex-smoker

London

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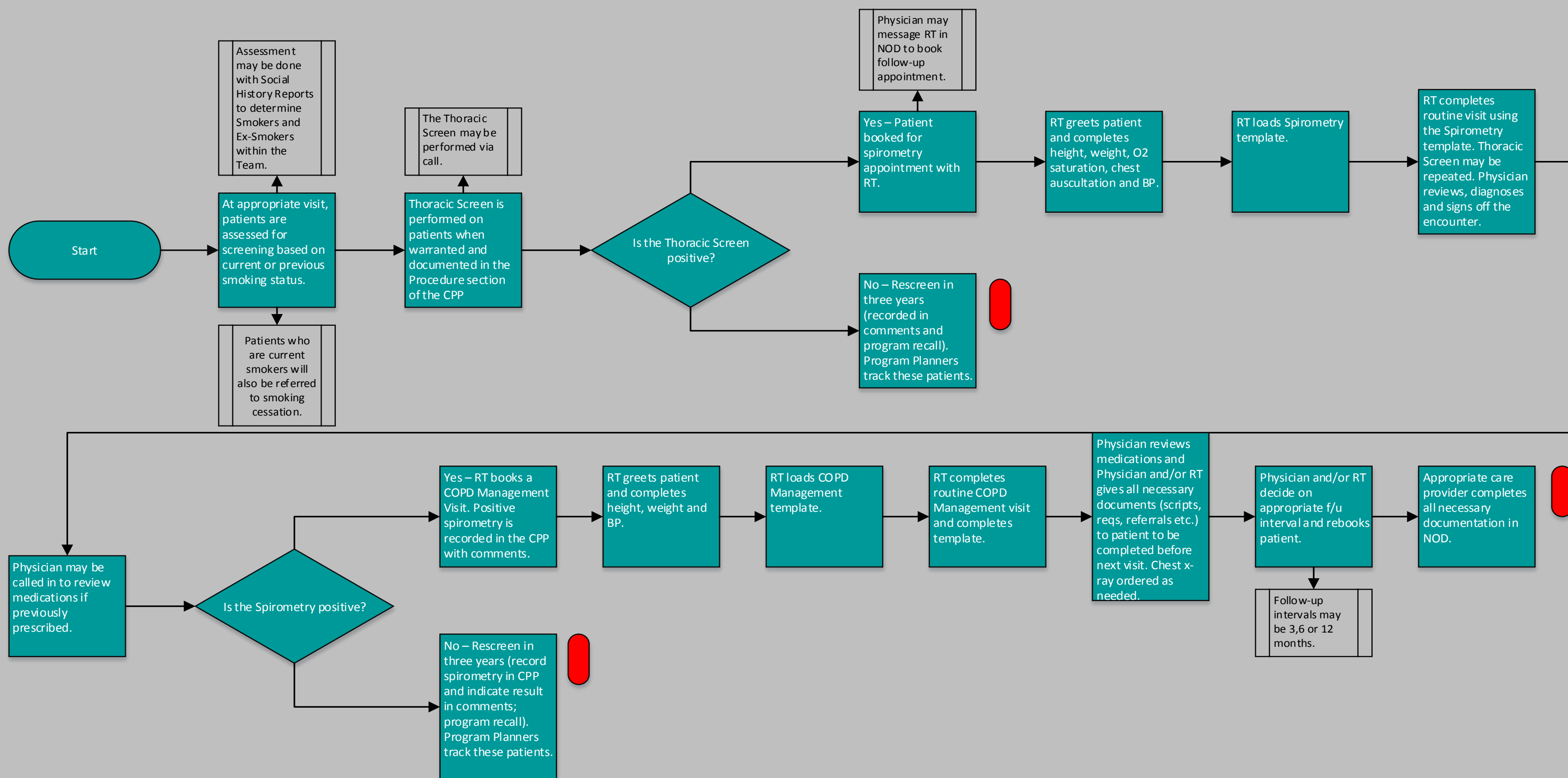
COPD Process Map



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Process, Outcome & Balance Measures

Measure		Percent of COPD Patients who Report a COPD Related Visit ot the ER or Hospital Admission (30 days)	Percent of COPD Patients who Report That They Are Not Currently Smoking at Their Most Recent Visit (30 days)	Percent of COPD Patients Who Currently Smoke and Have Been Offered Counselling, Pharmacological Support or Referral to Smoking Cessation Program (365 days)	Percent of COPD Patients with FEV1 Recorded (365 days)	Percent of COPD Patients with at Least One Self Management Goal Documented in the EMR (365 days)	Percent of COPD Patients Prescribed with a Long-Acting Bronchodilator (365 days)	Percent of COPD Patients Who Have Received the Influenza Vaccination (365 days)	Percent of COPD Patients Referred for Pulmonary Education (365 days)	Average MRC Score	OPTIONAL: Percent of COPD Patients Screened for Depression Using PHQ2 (365 days)	Progress Score	Exacerbations in past 6 months (NONE)	Exacerbations in past 6 months (ONE)	Exacerbations in past 6 months (TWO +)
TARGET		<7%	>60%	>95%	>70%	>90%	>60%	>90%	>90%		>60%				
2011	January	0.00%	67.30%	100.00%	83.70%	95.90%	100.00%	71.40%	100.00%			4.50	79.59	14.28	6.13
	February	2.00%	66.70%	100.00%	78.40%	94.10%	100.00%	72.50%	96.10%			4.50	78.45	15.69	5.86
	March	0.00%	67.30%	100.00%	78.80%	96.20%	100.00%	76.90%	96.10%			4.50	78.85	15.38	5.77
	April	0.00%	67.30%	100.00%	82.70%	100.00%	100.00%	80.80%	100.00%			4.50	78.85	15.38	5.77
	May	0.00%	67.30%	94.10%	73.10%	96.20%	100.00%	84.60%	96.20%		9.60%	4.50	78.85	15.38	5.77
	June	0.00%	67.30%	93.80%	71.40%	93.90%	100.00%	83.70%	93.90%		16.30%	4.50	79.59	14.29	6.12
	July	0.00%	68.00%	100.00%	94.00%	94.00%	100.00%	82.00%	94.60%		16.00%	3.00	82.00	12.00	6.00
	August	2.00%	68.00%	100.00%	94.00%	100.00%	100.00%	82.00%	98.00%		84.00%	5.00	80.00	14.00	6.00
	September	2.00%	69.39%	100.00%	95.92%	100.00%	100.00%	85.71%	97.96%		85.71%	5.00	81.65	12.24	6.11
	October	0.00%	69.39%	93.33%	95.92%	100.00%	100.00%	85.71%	97.96%		85.71%	5.00	81.65	12.24	6.11
	November	2.00%	71.43%	100.00%	95.88%	100.00%	100.00%	85.67%	93.00%		87.76%	5.00	77.55	16.33	6.12
	December	0.00%	72.00%	100.00%	94.00%	100.00%	100.00%	72.00%	90.00%		98.00%	5.00	78.00	16.00	6.00
2012	January	0.00%	76.59%	100.00%	96.06%	100.00%	100.00%	76.47%	96.08%		98.00%	5.00	74.51	17.65	7.84
	February	3.90%	70.59%	100.00%	94.10%	100.00%	100.00%	72.55%	96.08%		98.00%	5.00	70.59	21.57	7.84
	March	0.00%	71.15%	100.00%	94.23%	100.00%	100.00%	73.08%	96.15%		96.15%	5.00	69.23	23.08	7.69
	April	0.00%	71.15%	100.00%	98.06%	100.00%	100.00%	82.69%	98.08%		96.15%	5.00	69.23	23.08	7.69
	May	3.84%	71.15%	100.00%	98.06%	100.00%	100.00%	82.69%	98.08%		96.15%	5.00	67.31	19.23	13.46
	June	0.00%	71.15%	100.00%	92.31%	100.00%	100.00%	82.69%	98.08%		84.62%	5.00	67.31	19.23	13.46
	July	0.00%	71.70%	100.00%	87.88%	100.00%	100.00%	80.00%	92.45%		83.02%	5.00	67.92	18.87	13.21
	August	0.00%	70.37%	100.00%	79.63%	100.00%	100.00%	80.00%	94.44%		70.57%	4.50	68.52	20.37	11.11
	September	0.00%	70.37%	100.00%	87.04%	100.00%	100.00%	70.57%	96.30%		77.78%	4.50	68.52	20.37	11.11
	October	1.83%	70.37%	100.00%	87.04%	100.00%	100.00%	81.66%	96.30%		80.03%	4.50	69.25	25.08	5.67
	November	0.00%	70.37%	100.00%	87.04%	100.00%	100.00%	88.89%	96.30%		81.48%	4.50	68.52	20.37	11.11
	December	3.00%	70.37%	100.00%	87.04%	96.30%	100.00%	90.59%	96.30%		80.03%	4.50	69.23	25.08	5.69
2013	January	0.00%	70.37%	100.00%	86.20%	97.42%	100.00%	90.59%	97.42%		77.78%	4.50	69.23	20.37	10.40
	February	0.00%	70.37%	100.00%	87.88%	97.42%	100.00%	90.59%	97.42%		77.78%	4.50	78.18	23.08	-1.26
	March	0.00%	70.37%	100.00%	86.20%	97.42%	100.00%	90.59%	97.42%		76.29%	4.50	74.55	23.08	2.37
	April	0.00%	69.09%	100.00%	75.00%	94.55%	100.00%	90.59%	97.42%		69.29%	4.50	74.55	14.55	10.90
	May	2.00%	67.27%	100.00%	78.57%	92.73%	100.00%	90.91%	92.73%		81.82%	4.50	74.55	14.55	10.90
	June	0.00%	69.90%	100.00%	78.57%	92.73%	100.00%	90.59%	97.42%		82.20%	4.50	74.55	14.55	10.90
	July	0.00%	69.90%	100.00%	78.57%	92.73%	100.00%	90.59%	97.42%		82.20%	4.50	74.55	14.55	10.90
	August	0.00%	70.37%	100.00%	82.31%	97.42%	100.00%	90.59%	98.08%		81.82%	4.50	78.18	15.61	6.21
	September	0.00%	70.37%	100.00%	81.68%	95.88%	100.00%	90.59%	98.08%		83.67%	4.50	78.18	15.61	6.21
	October	0.00%	68.09%	100.00%	97.06%	93.62%	100.00%	42.55%	97.87%	2.20	87.23%	4.50	78.72	12.77	6.38
	November	0.00%	68.09%	100.00%	97.06%	92.87%	100.00%	65.00%	97.87%	2.20	87.23%	4.50	78.72	12.77	6.38
	December	0.00%	68.09%	100.00%	88.30%	91.67%	100.00%	68.30%	97.87%	2.22	83.33%	4.50	78.72	12.77	6.38
2014	January	0.00%	68.09%	100.00%	88.30%	92.87%	100.00%	65.00%	97.87%	2.20	83.33%	4.50	78.72	12.77	6.38
	February	0.00%	70.21%	100.00%	80.95%	97.67%	100.00%	70.10%	97.87%	1.98	81.40%	4.50	72.34	14.89	6.38
	March	0.00%	70.21%	100.00%	80.95%	92.87%	100.00%	70.10%	92.80%	2.20	83.33%	4.50	78.72	12.77	6.38
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	May	0.00%	70.21%	91.20%	77.80%	90.30%	100.00%	70.10%	90.40%	1.89	86.70%	4.50	72.34	14.89	6.38
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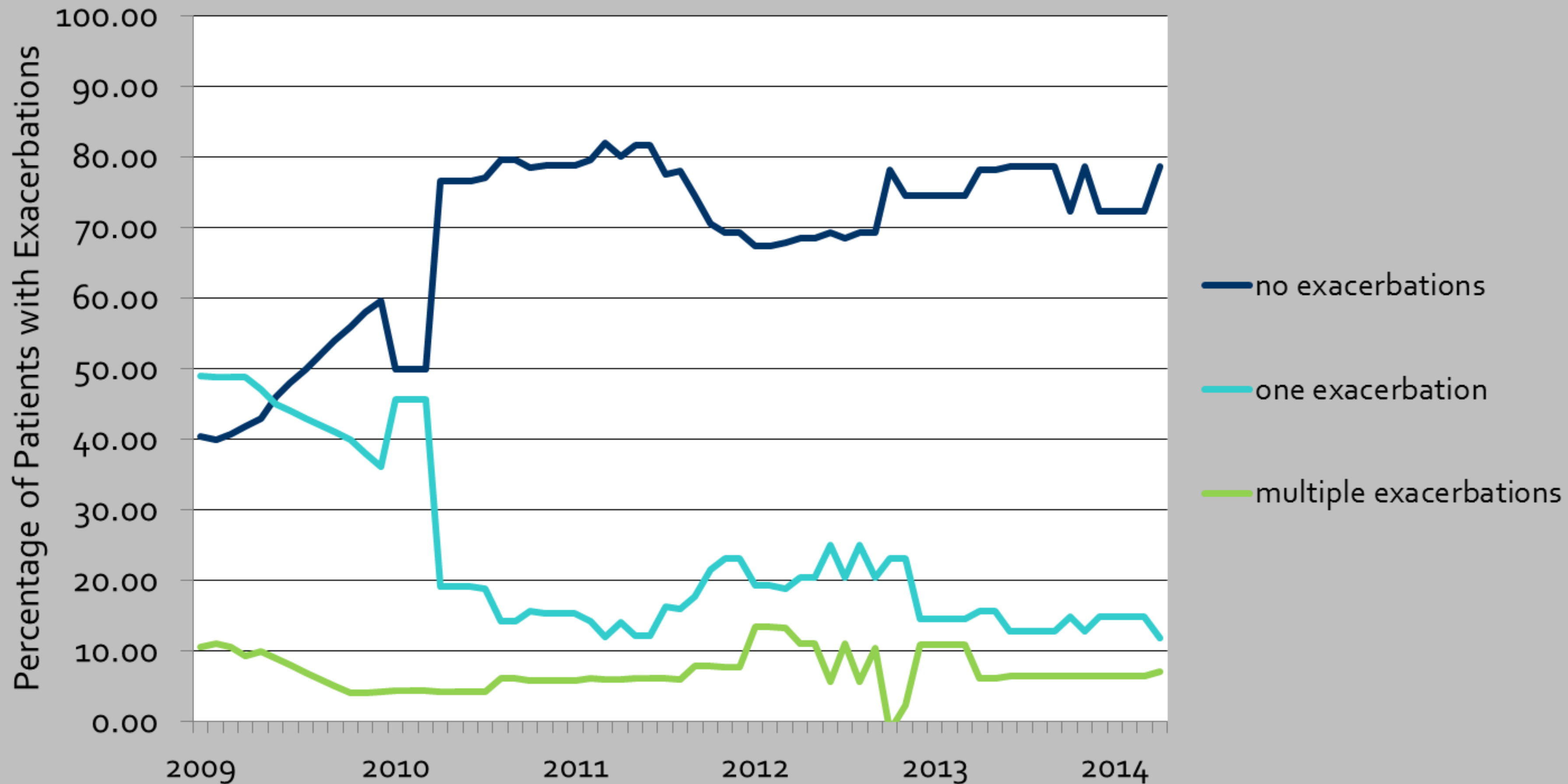
	August	0.00%	70.21%	100.00%	79.20%	91.20%	100.00%	70.10%	91.60%	2.00	86.70%	4.50	72.34	14.89	6.38

Decreased Exacerbations



Summary

- Able to identify patients with COPD through Case Finding
  - **Thoracic Screen**
  - **Spirometry**
- Building of **EMR Tools** allowed for AHP involvement and data analysis
- Team based approach **improves care** for patient and **decreases burden** on physician and system

References

1. (2011). Primary Care Practice Report. *Health Quality Ontario*.
2. (2013). Canadian Lung Health Test. *Canadian Thoracic Society.*
3. (2006). Wagner's Chronic Care Model for Chronic Disease Management. *Improving Chronic Illness Care.*
4. (2010). Canadian Respiratory Guidelines – Chronic Obstructive Pulmonary Disease. *Canadian Thoracic Society.*

Question Period

Thank you for your time.

Exercising the Option to help those with COPD

The Stratford Family Health Team approach to Pulmonary Rehab

Presented by: *Maria Savelle RN, CRE*

Presenter Disclosure

- **Presenter:** Maria Savelle
- **Relationships with commercial interests:**
  - **Grants/Research Support:** none
  - **Speakers Bureau/Honoraria:** none
  - **Consulting Fees: none**

Disclosure of Commercial Support

- This program has no commercial support
- No conflict of interest can be identified

Mitigating Potential Bias

- None required

STRATFORD FAMILY HEALTH team

Stratford Family Health Team

- ***12 Family Physicians***
- ***22,000 Rostered Patients***
- ***7 sites within Stratford and surrounding***

STRATFORD FAMILY HEALTH team

WHY & WHEN

- Ontario Telemedicine Network COPD/CHF Pilot implementation 2008
- OTN created awareness and need for a Lung Health Program
- Trained: COPDTrec, AsthmaTREC, SpiroTREC
- *Respiratory Clinic Assessment and Education Program* officially launched Sept., 2009

STRATFORD FAMILY HEALTH team

Respiratory Clinic What's Involved…

- Asthma/COPD Assessment & Education Program
- Registered Nurse/ Certified Respiratory Educator
- Spirometry testing
- O2 Testing & referral
- Smoking Cessation (TEACH certified)
- Pulmonary Rehab program

STRATFORD FAMILY HEALTH team

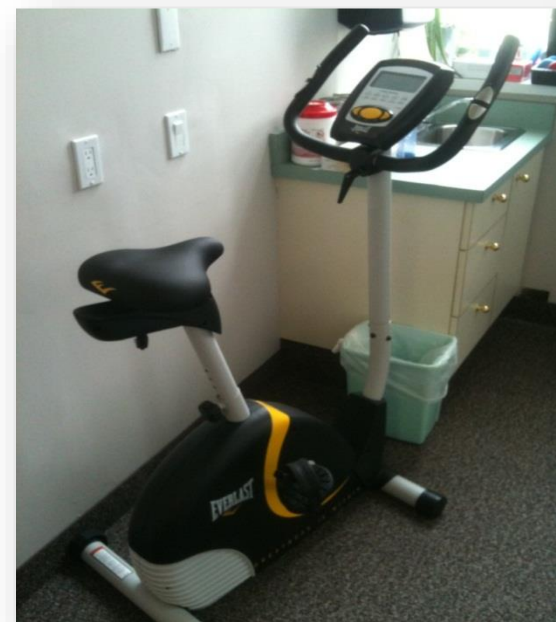
‘COPD-A National Report Card’ reports that only ***1.2%*** of the entire COPD population are being served by Pulmonary Rehabilitation programs[2]

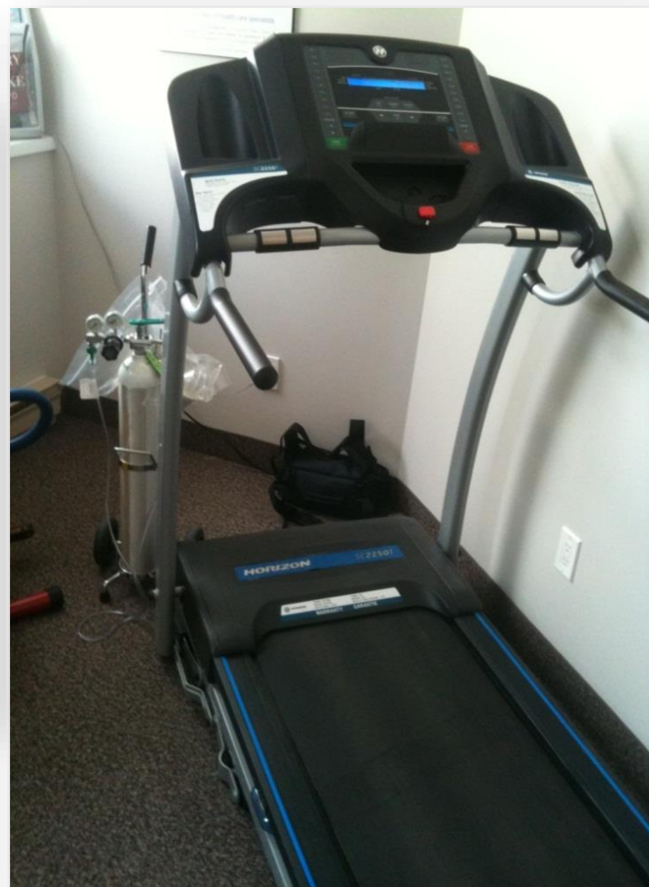
STRATFORD FAMILY HEALTH team

[2] Characterization of Pulmonary Rehabilitation Program in Canada. Horton, R.; Bell, B., Hanna, M.; Laframboise, L,; Selvanayagarajah, S. University of Toronto, 2005.

EVERLAST
HORIZON

Tools of the Trade





Program Trial

The first Pulmonary Rehab patient to complete the program.

Initial 6 Minute Walk Test = **80 meters**

After 8 weeks rehab:

6 Minute Walk Test = **209 meters** (**161.25%** improvement)

- Managed flares with Action Plan
- Reduced calls to doctors office
- **Patient letter

STRATFORD FAMILY HEALTH team

SFHT Respiratory Clinic Pulmonary Rehab Program

- 8 week program
- Twice a week sessions, in partnership with Stratford YMCA, *free* open 2 month membership
- 20 minutes cardio (treadmill, stationary bike)
- 5 different arm exercises (free weights or resistance bands)
- 6MWT as measurable indicator
- Education re: self-management

YMCA of Stratford-Perth

Building healthy communities

COPD Education

COPD is not curable. It’s a declining, progressive disease that can be slowed down with proper interventions

- Breathing techniques (pursed lip)
- Coughing Technique
- Energy Conservation Techniques
- Inhaler Evaluation, education of device
- Proper Medication Use
- Action Plans
- Smoking Cessation
- Resources/education materials “Breath Works Plan”
- Address End of Life Issues/planning
- Identify triggers, early warning signs for AECOPD

Factsheet: Exercise

ASK THE
BREATHWORKS COACH

I have COPD. Should I exercise?

Yes! Exercise is good for everyone, but it's especially important for people with COPD. In fact, it's one of the most powerful tools we have for managing COPD – second only to quitting smoking.

How can exercise help me?

You already know that breathing is tough physical work for someone with COPD. And when every breath is a chore, it's tempting to take it easy. But as you become less and less physically active, your muscles (including your heart) become less and less efficient. That means they not only use more oxygen, they actually have to work harder to do the same jobs – leaving you more tired and breathless. Regular exercise can help break this 'vicious cycle of breathlessness' by helping your heart, lungs, and muscles to work as efficiently as possible, so you can do more activities with the same amount of effort.

But the benefits don't stop there. Regular exercise can help you reach a healthy weight. It also strengthens your bones, and your body's ability to fight off infection. Becoming more physically active can also increase your energy level, boost your mood, and help you maintain or regain your independence. And being as fit as possible can reduce the odds that your COPD symptoms will worsen, which can help keep you out of the hospital.

THE LUNG ASSOCIATION

BREATHWORKS

Fact Sheet

STRATFORD FAMILY HEALTH team

Referrals to Inter-disciplinary Team

- Smoking Cessation Program
- Registered Dietitian
- Chiropodist
- Hypertension Clinic
- CHF Program
- Chronic Pain Program
- Mental Health Program
- Pharmacist
- Occupational Therapist

STRATFORD FAMILY HEALTH team

6 Minute Walk Test (meters)

6 Minute Walk Test (meters)

STRATFORD FAMILY HEALTH team

Benefits of Pulmonary Rehab

- **Reduces frequency & severity of dyspnoea** (*Mannino et al 2009*)
- **Improves health-related quality of life** (*Ries et al; 2007; Lacasse et al 2009*)
- **Reduces the number of hospital days** (*Seymour et al Thorax 2010*)
- **More effective than pharmacology in improving quality of life** (*Troosters et al 2005; Lacasse et al2009; COPDX 2010; NCE 2010*)
- **Improves adherence to recommended treatments** (*Lacasse et al 2006; Morgan et al 2001*)
- **Improves muscle strength, cardiovascular fitness and exercise endurance** (*Trooster et al 2005; Chavannes et al 2002*)
- **Reduces the number of visits to GPs** (*NICE; COPDX*).
- **Provides psychosocial benefits** (*Ries et al 2007*)
- **Reduces dependency on others** (*Griffiths et al. 2000)*

STRATFORD FAMILY HEALTH team

Thank you!

Questions?