



## Total Cost of Care & Relative Resource Use

SIM Payment Reform Subcommittee Meeting  
August 26, 2014

*Maine Health Management Coalition*

**First...**




Cost is part of the picture

Cost is one component of value

Cost includes utilization, it is not just unit price.

## The Measures

Total Cost  
of  
Care




NATIONAL  
QUALITY FORUM

Quality Positioning System (QPS)  
Measure Description Display Information

Resource Use Measure: The following is a resource use measure. Resource use measures are broadly applicable and comparable measures of health services counts (units or dollars) applied to a population or event in terms of counts, dollars, or observed-to-expected ratios.

Description:  
Measure Title: **Total Cost of Care Population-based PMPM Index**  
NQF Measure Number: 1604

Total  
Resource  
Use



NATIONAL  
QUALITY FORUM

Quality Positioning System (QPS)  
Measure Description Display Information

Resource Use Measure: The following is a resource use measure. Resource use measures are broadly applicable and comparable measures of health services counts (units or dollars) applied to a population or event in terms of counts, dollars, or observed-to-expected ratios.

Description:  
Measure Title: **Total Resource Use Population-based PMPM Index**  
NQF Measure Number: 1598

## HealthPartners Cost of Care

### What is HealthPartners?

- HealthPartners is a non-profit, consumer governed integrated care delivery and health plan financing system based in Minnesota.
- HealthPartners operates a health plan with over 1.5 million members, medical clinics, with 1,700 primary care and specialty physicians, as well as 7 hospitals, including a level 1 trauma center and urban teaching hospital.
- HealthPartners works with every physician group and hospital system in the region.
- HealthPartners' mission is to improve the health of our members, patients and the community. This is partially achieved through focus on the Triple Aim: improved quality of health, a better patient experience, and lower cost of care.

## What is Total Cost of Care and Resources Use?

- Total per capital cost (or resources use) for a panel of patients attributed to a primary care practice, includes all care, treatment costs, places of service, and provider types.
- Risk (case mix) adjusted
- High cost patients capped at \$100,000
- Measured over 1 year period
- 'Drillable' to condition, procedure, and service level

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## Total Cost of Care

- Population-based measurement is to better understand person-centered management and accountability, overuse and underuse. Complements episodic and condition-based total cost and resource use measures.
- Concordant with reform-related structures such as ACOs and medical homes which aim to act as coordinated group on behalf of patient.
- Non-condition or non-episode specific measurement depicts a complete picture of a provider's total cost and resource use.
- Illness-burden adjustment is a critical component to the measure to allow for meaningful comparisons.
- Part of a Triple Aim approach balanced with quality and patient experience.

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## Two Measures.....*per capita*

Total Cost of Care: med & pharm cost -  
price, service utilization,  
market-specific variation

Total Resource Use: resource use across inpatient,  
outpatient, professional, and  
pharmacy. uses "standard  
pricing"

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Reliability Tested: Consistent results

Validity Tested: Performs as intended

NQF Endorsed: Vetted, adoption,  
benchmarking

90+ licenses 26 states

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## Attribution

- MHMC
  - Attribute to practice based on evaluation and management visits in outpatient and professional settings.
  - MHMC is currently evaluating the expansion of the code set to include telephonic and online evaluation and management.
  - Based on plurality of evaluation and management visits. Patients with an equal number of visits to multiple practices are not assigned.
  - Ensures the patient actually received care from the attributed practice.
- Confusion – What is the purpose, what do we intend to measure?
  - Retrospective
  - Prospective
  - Risk contracts & ACOs
  - Episodes and bundles payments
  - Patient vs population
  - Levels of accountability
  - Every person, every dollar

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## HealthPartners Total Cost of Care

### Total Cost Index (TCI)

#### Numerator

$$\text{Total PMPM} = (\text{Total Medical Cost} / \text{Medical Member Months}) + (\text{Total Pharmacy Cost} / \text{Pharmacy Member Months})$$

#### Denominator

Risk Score

#### Rate Calculations

$$\text{Risk Adjusted PMPM} = \text{Total PMPM} / \text{Risk Score}$$

$$\text{TCI} = \text{Risk Adjusted PMPM} / \text{Peer Group Risk Adjusted PMPM}$$

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## Maine Primary Care Practice Report: TCI



	Practice		BM <sup>2</sup>	
	Raw PMPM	Adj PMPM*	PMPM	TCI
Inpatient Fac.	\$82	\$77	\$98	0.78
Outpatient Fac.	\$175	\$164	\$196	0.84
Professional	\$152	\$142	\$146	0.97
Pharmacy	\$94	\$88	\$93	0.94
<b>Overall</b>	<b>\$503</b>	<b>\$470</b>	<b>\$533</b>	<b>0.88</b>

<sup>2</sup> BM = Peer Benchmark

Note: Retrospective Risk Score for Practice = 1.07

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## Total Care Relative Resource Values (TCRRVs)

- Linear scale of relative resource values designed to evaluate resource use across all types of medical services, procedures, and places of service.
- Each service is assigned a number of resource units (weights) using a CMS based approach for components of care:
  - Inpatient DRG
  - Outpatient APC
  - Professional RVU
  - Pharmacy NDC
- The value of a unit of resource within each component is calculated from a large national claims database.
- $TCRRV = (\# \text{ units}) \times (\text{value per unit})$ 
  - All services are effectively re-priced to standard values.
  - Adjusted to actual cost distribution across components of care.
  - TCRRVs are additive, as dollars are, across components of care.

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## HealthPartners Relative Resource Use

### Resource Use Index (RUI)

#### Numerator

$$\text{Resource PMPM} = (\text{Total Medical TCRRV} / \text{Medical Member Months}) + (\text{Total Pharmacy TCRRV} / \text{Pharmacy Member Months})$$

#### Denominator

Risk Score

#### Rate Calculations

$$\text{Risk Adjusted Resource PMPM} = \text{Resource PMPM} / \text{Risk Score}$$

$$\text{RUI} = \text{Risk Adjusted Resource PMPM} / \text{Peer Group Risk Adjusted Resource PMPM}$$

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## ...and Resource Utilization (RUI)



	Practice		BM <sup>2</sup>		RUI
	Raw PMPM	Adj PMPM*	PMPM	TCI	
Inpatient Fac.	\$82	\$77	\$98	0.78	0.74
Outpatient Fac.	\$175	\$164	\$196	0.84	0.62
Professional	\$152	\$142	\$146	0.97	0.88
Pharmacy	\$94	\$88	\$93	0.94	0.95
<b>Overall</b>	<b>\$503</b>	<b>\$470</b>	<b>\$533</b>	<b>0.88</b>	<b>0.79</b>

<sup>2</sup> BM = Peer Benchmark

Retrospective Risk Score for Practice = 1.07

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## HealthPartners® Reliability Testing

### Overall Conclusions

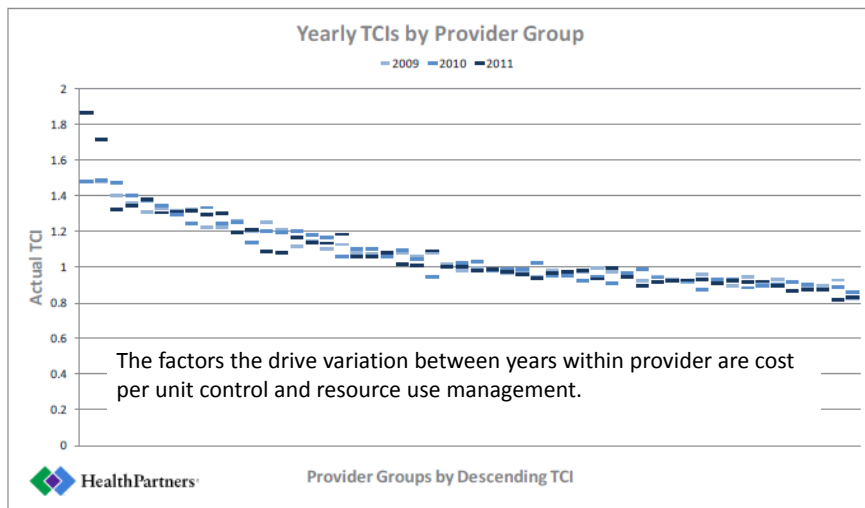
- The differences between actual provider TCI results and sample tests were very small.
  - These results indicate that the TCIs for each provider group are **repeatable and consistent**.
- A provider's performance is relatively consistent across all three years, with an average difference of 0.031.
  - These differences in provider performance over time occur because of known changes in fee schedules, collaborating provider usage and resource use-saving initiatives.
  - Since the measure is designed to capture and reflect changes in these areas, some variability within a provider group is expected over time.

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## TCI Reliability: Year to Year



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## Reliability

- Reliability of a performance measure is its ability to consistently distinguish one provider from another.
  - Systemic differences:** real, controllable, intent of measure
  - Random fluctuations:** patient population fluctuations

- MHMC minimum panel size

Member Count	Clinic Groups			Clinic		
	Average Reliability	Group Count	Reliability > 0.7	Average Reliability	Clinic Count	Reliability > 0.7
2-10	0.416	59	15%	0.560	255	33%
10-20	0.607	26	42%	0.693	98	55%
20-50	0.743	63	86%	0.791	163	79%
50-100	0.838	35	89%	0.878	124	91%
100-200	0.820	21	81%	0.928	95	98%
200-300	0.941	13	100%	0.966	53	100%
300-400	0.946	7	100%	0.974	36	100%
400-500	0.979	6	100%	0.983	26	100%

- MHMC testing: panel sampling, high cost claimants, rating changes

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## Reliability and Validity: MHMC Testing

### Reliability

- Sampling process on all practice panels (500 samples per practice) to assess variability from chance patient sampling
- Results similar to Health Partners
- What is likelihood of rating changes due to chance alone – one rating change, two ratings?
- Impact of high cost claimants

### Validity

- Unadjusted cost and resource use should be strongly correlated with risk (case mix). → They are **Correlation about 0.80 ( $R^2 = 0.64$ )**
- Cost and resource use should show relationship to known utilization measures.

→ They do

Inpatient Metric	Correlation Coefficient	
	IP TCI	IP RUI
Admit Rate	0.86	0.92

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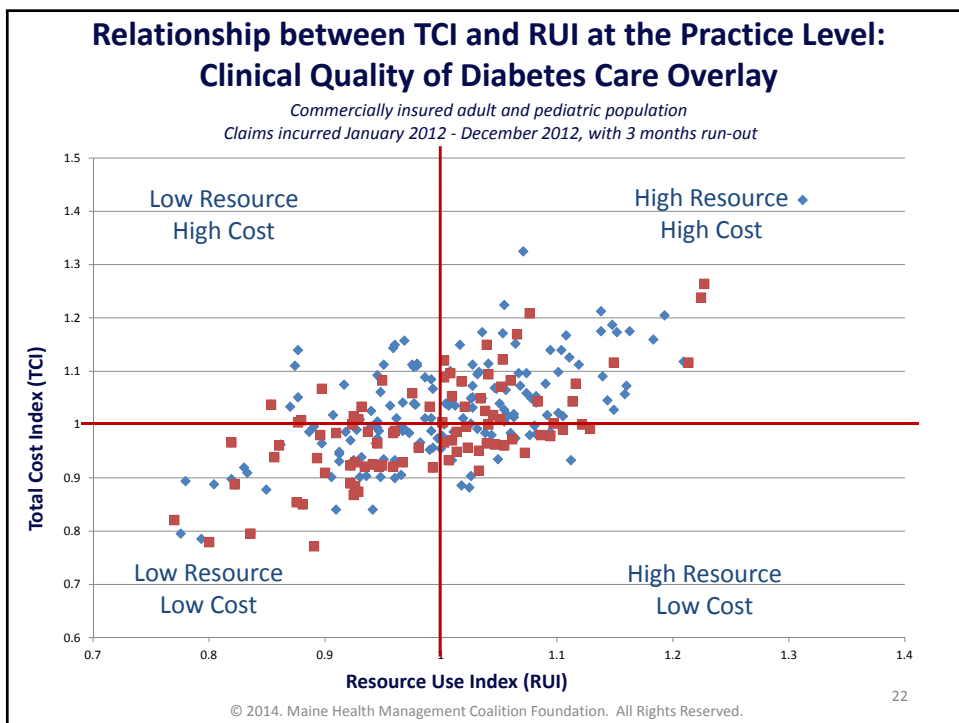
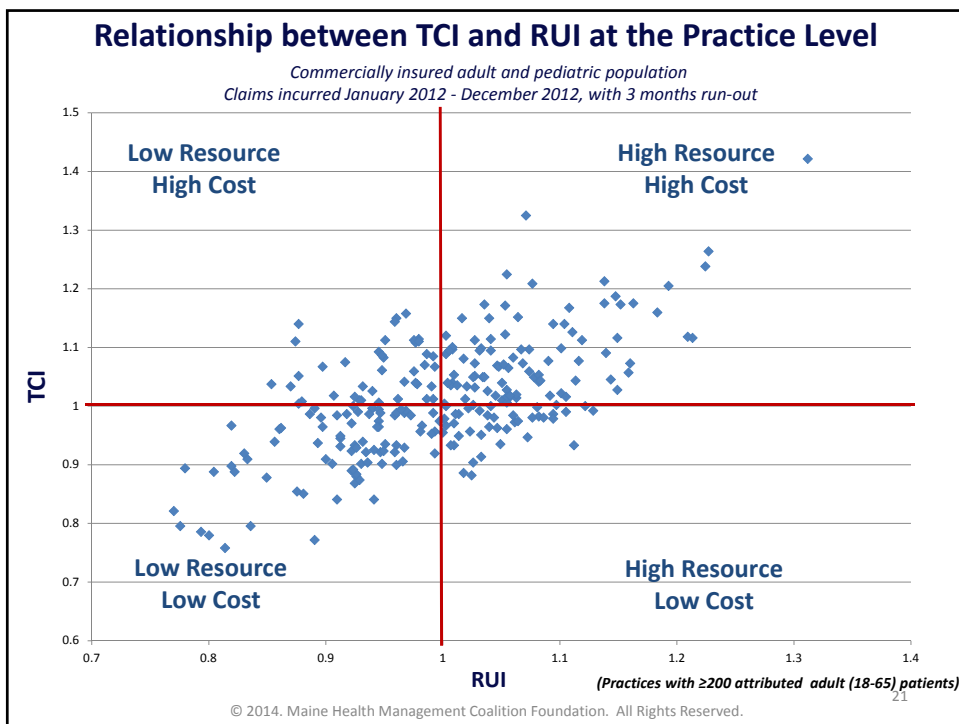
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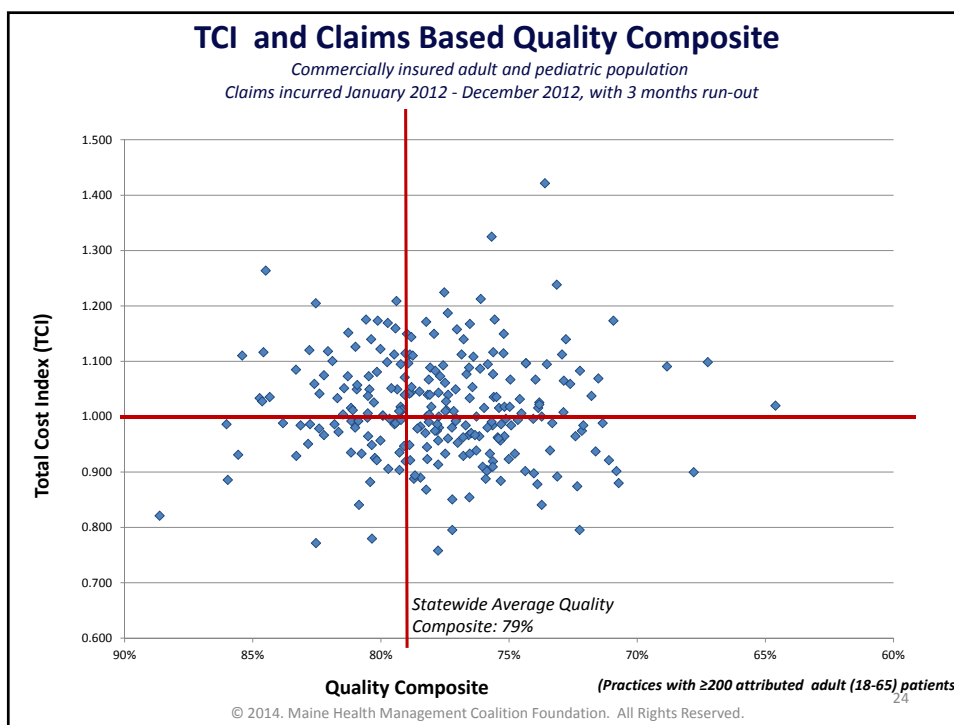
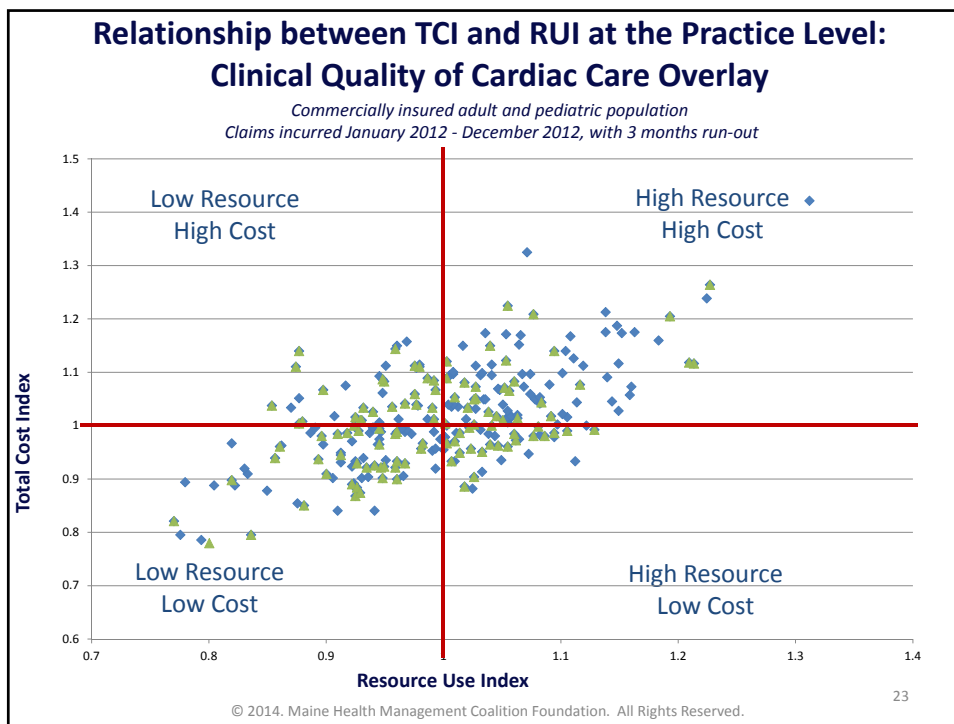
## All Following Results are Preliminary

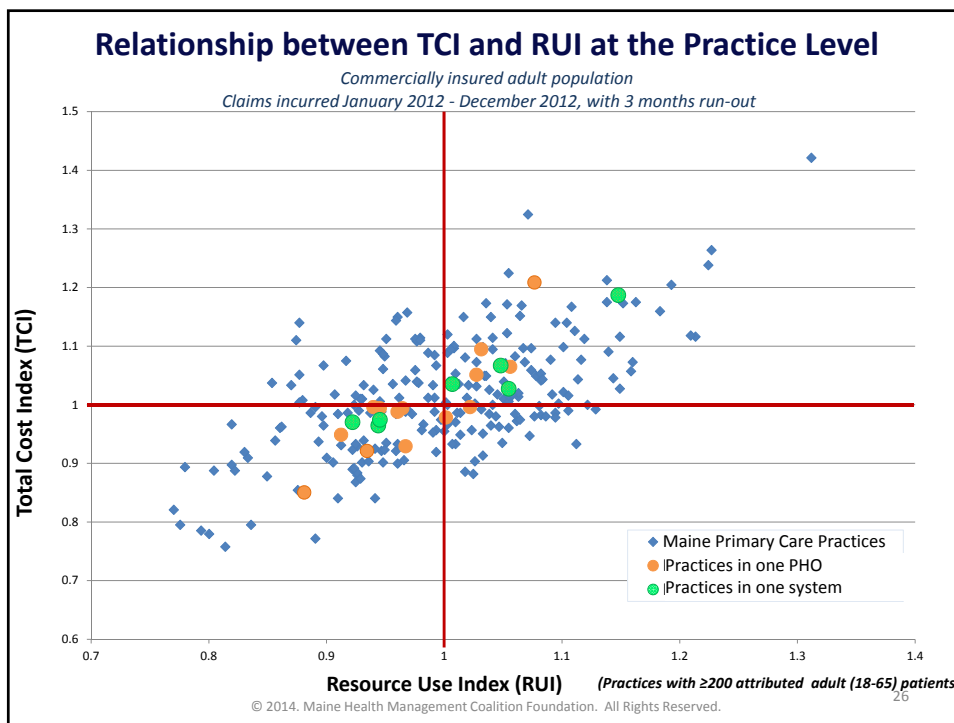
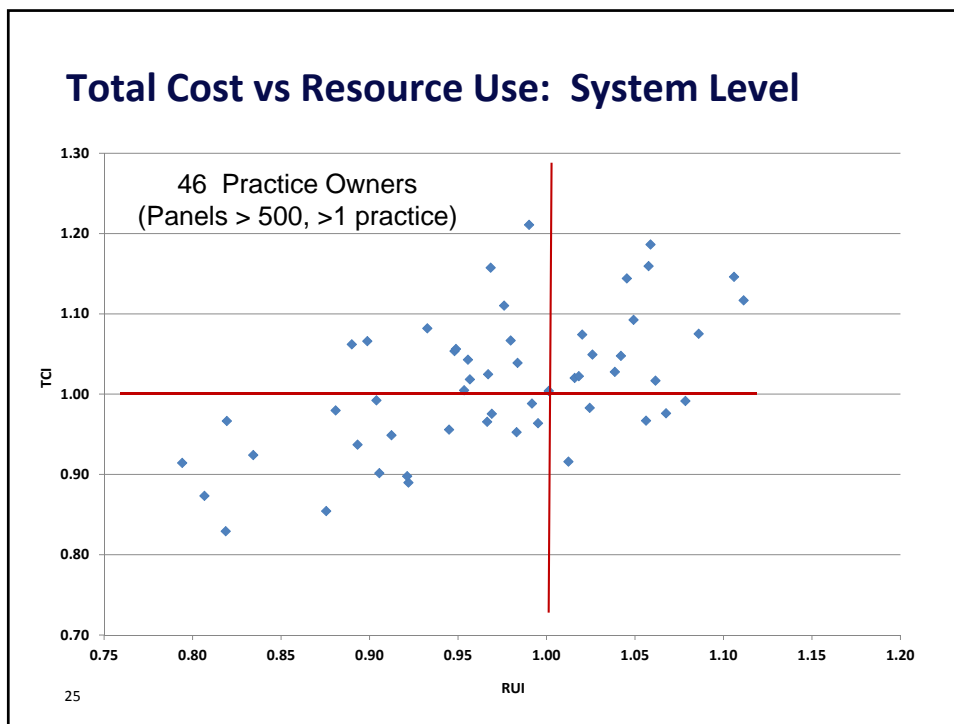
**Results are for demonstration only and known outliers have not been removed.**

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**End**

**Thank You**

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