

# 2012 IVIG AUDIT

GHEST

September 28th 2013

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# Overview

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- 🔴 Why do an audit?
- 🔴 Challenges
- 🔴 The data
- 🔴 Next steps



# Why do an audit?

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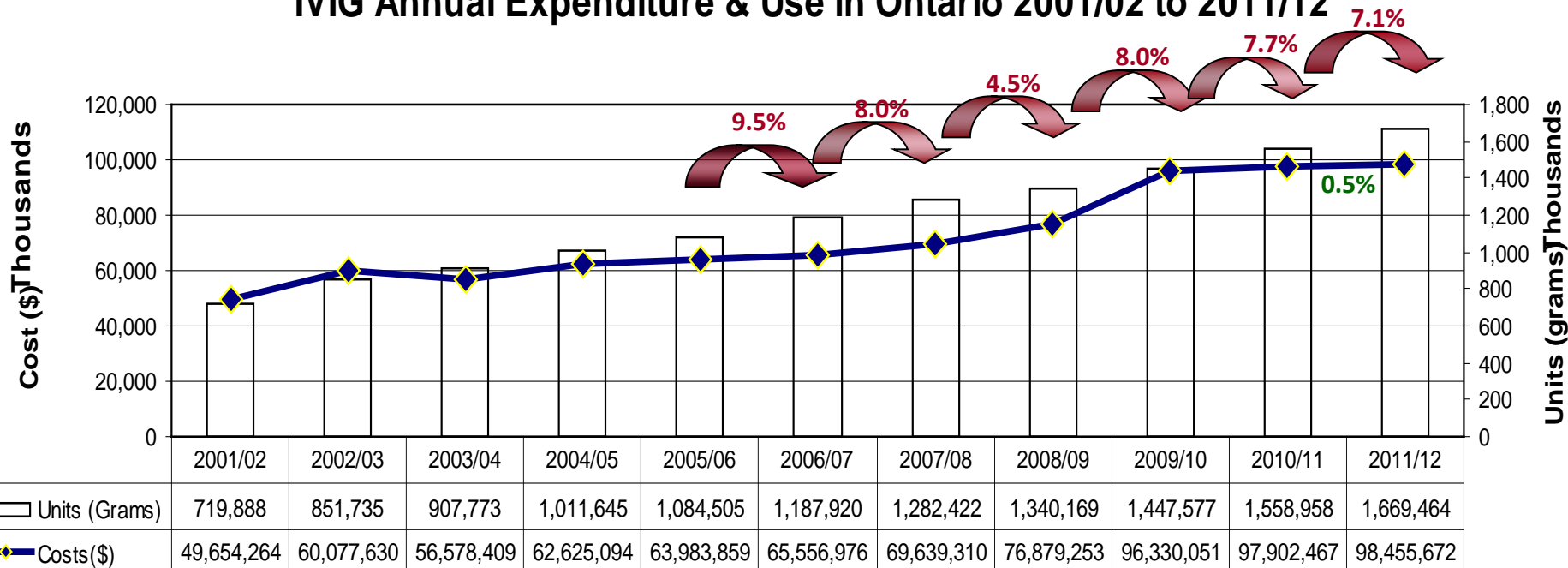
In 2007....

In order to address the utilization management of IVIG in Ontario, the Ontario Regional Blood Coordinating Network (ORBCoN) was directed by the Blood Programs Coordinating Office (BPCO) to design and conduct a project to collect baseline data on IVIG use for the top users of the product in Ontario.



# Because...

## IVIG Annual Expenditure & Use in Ontario 2001/02 to 2011/12



❖ Ontario's IVIG use and expenditures have risen from about **1.1M units (\$64.0M)** in 2005/06 to **1.7M units (\$98.4M)** in 2011/12

❖ An increase of **55.6%** in units and **44.2%** in costs in six years

# and because...

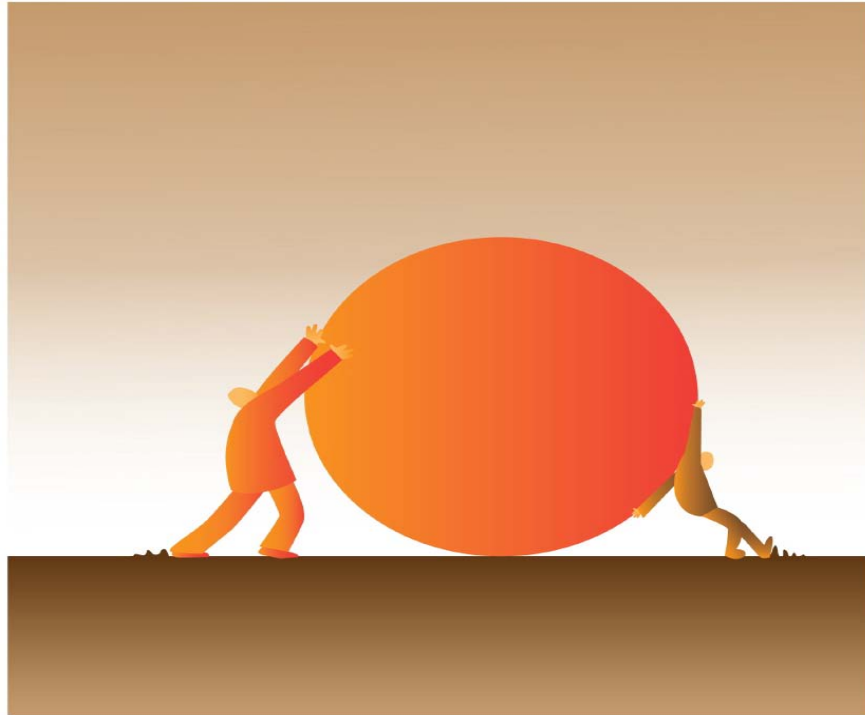
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- 🔴 Did you know that the word “Audit” appears in the OLA Standards 40 times?
- 🔴 You were **voluntold!**



# Challenges

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# E-Tool challenges

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Knowledge gaps; tech vs healthcare

- Repetitive data entry - **solved**
- Restrictive choices for physician specialty



# Data challenges

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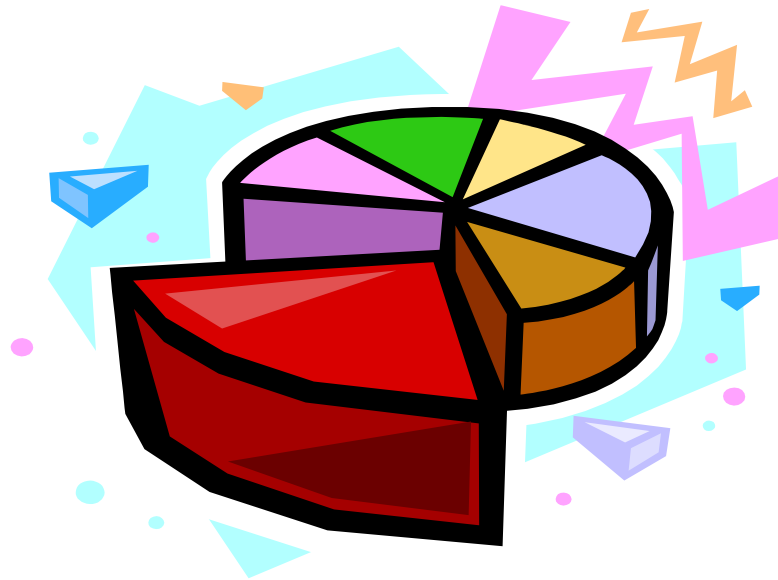
- Over 1,000 different indications entered
  - Reduced to 120
- Apples to oranges
  - Licensed indications change over time i.e. CIDP
  - Labeled vs licensed vs approved





# The Data

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# Data Points Collected 2007 & 2012

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- Hospital site
- Patient care area
- Date of infusion
- Patient identification by study code number
- Patient height and weight
- Primary Diagnosis
- Patient age (YYMM)
- Gender
- Indication for IVIG infusion
- Dose of IVIG ordered and modified dose where applicable
- Ordering physician specialty



# Audit of IVIG Utilization in Sept/2012

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	<b>2007 Audit</b>	<b>2012 Audit</b>	Variation
Hospitals	25	61	144%
Patient	1,345	2,246	67%
Infusions	4,234	6,442	52%
IVIG Grams	199,406	301,398	51%



# Hospitals Type: 2007 Audit vs. 2012 Audit

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Hospitals Type	2007 Audit	%	2012 Audit	%
Teaching	<b>18</b>	<b>72.0</b>	<b>19</b>	32.8
Community	<b>6</b>	24.0	<b>29</b>	50.0
Small	<b>1</b>	4.0	<b>10</b>	17.2
<b>Total</b>	<b>25</b>	<b>100%</b>	<b>58</b>	<b>100%</b>



# Patient Demographics

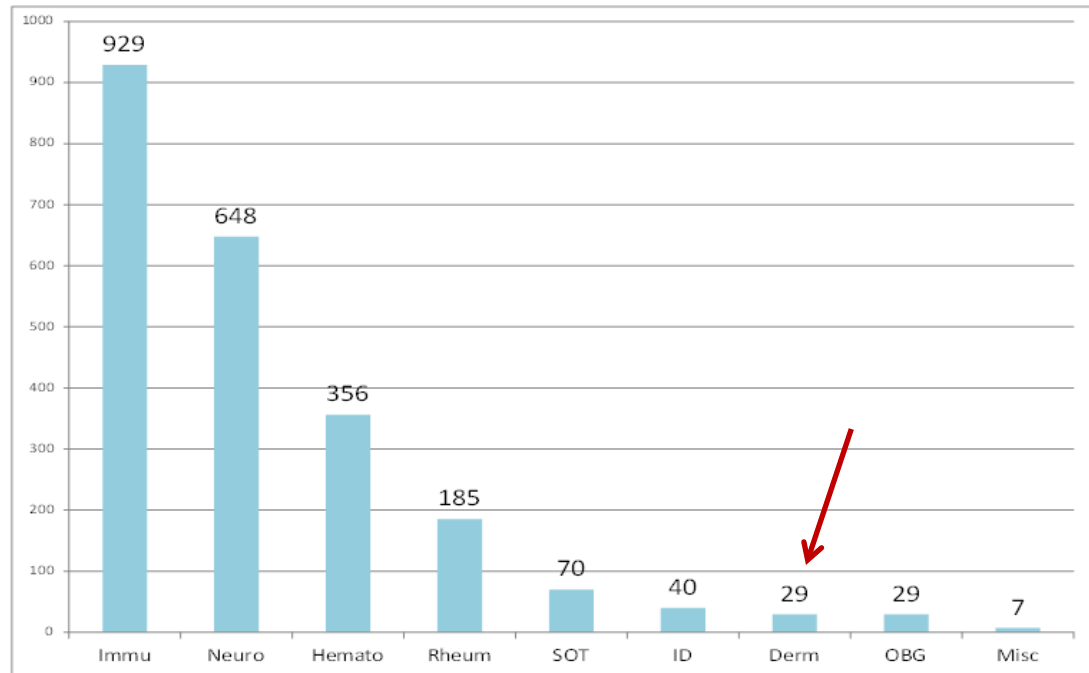
Type	2007 Audit				2012 Audit			
	Gender				Gender			
	F	M	Total		F	M	Total	
Adult	632	549	1,181	88%	1,017	955	1,972	88%
Pediatric			141	10%	113	144	257	11%
Neonates			23	2%	5	12	17	1%
Total			1,345 patients		1,135	1,111	2,246 patients	
					51%	49%		



# 2012 IVIG Audit Results

## Top 5 Specialty users by: # of patients

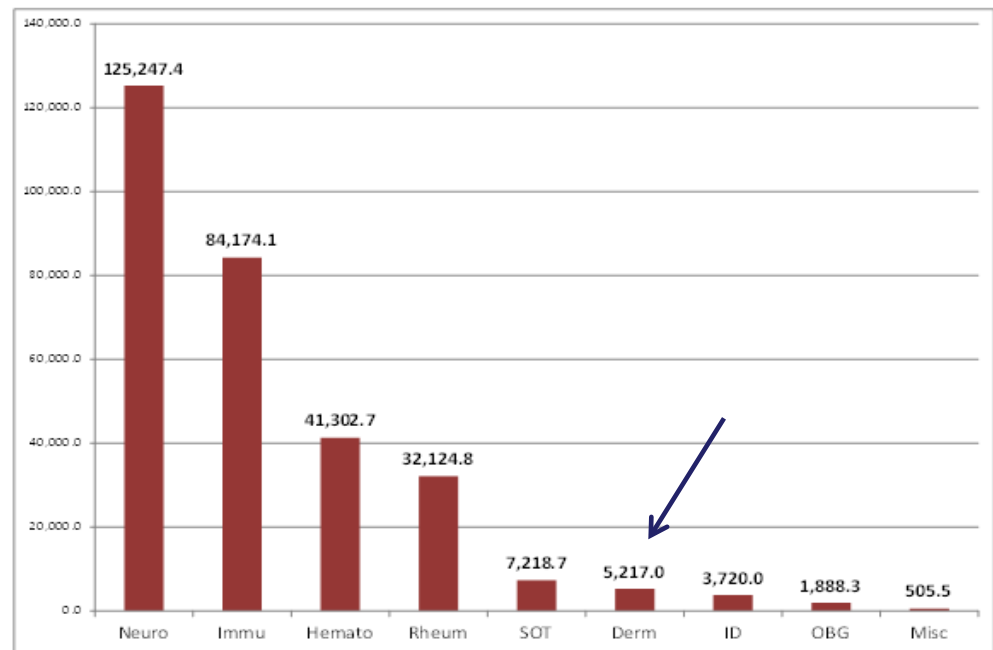
1. Immunology (41%)
2. Neurology (29%)
3. Hematology (16%)
4. Rheumatology (8%)
5. Solid Organ Transplant (3%)



# 2012 IVIG Audit Results

## Top 5 Specialty users by: # of grams

1. Neurology (42%)
2. Immunology (28%)
3. Hematology (14%)
4. Rheumatology (11%)
5. Solid Organ Transplant (2%)



# 2012 IVIG Audit Results by Indication

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Top 5 IVIG users by indication (# of grams):

- Chronic Idiopathic Demyelinating Polyneuropathy (18%)
- Primary Immune Deficiency (17%)
- Idiopathic Thrombocytopenia Purpura (11%)
- Secondary Immune Deficiency (9%)
- Myasthenia Gravis (8%)



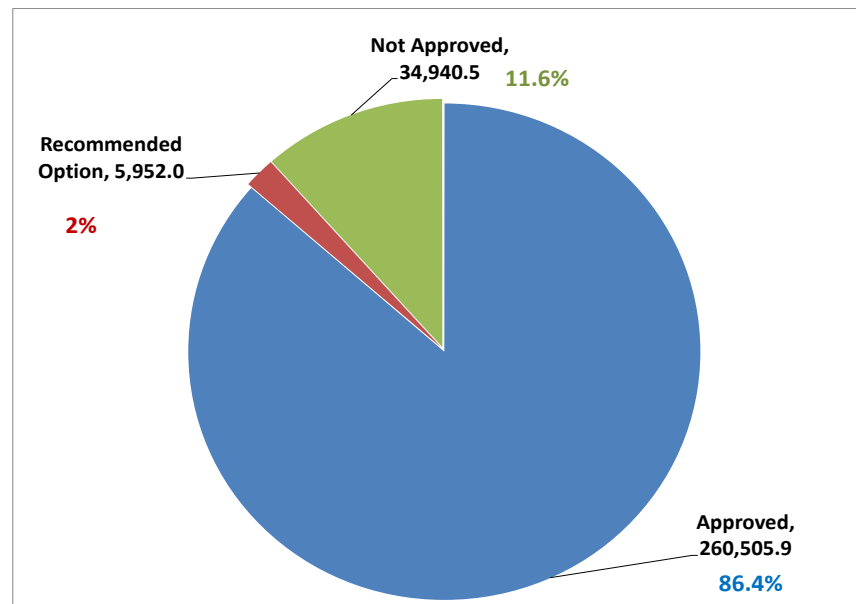


# 2012 IVIG Audit Results

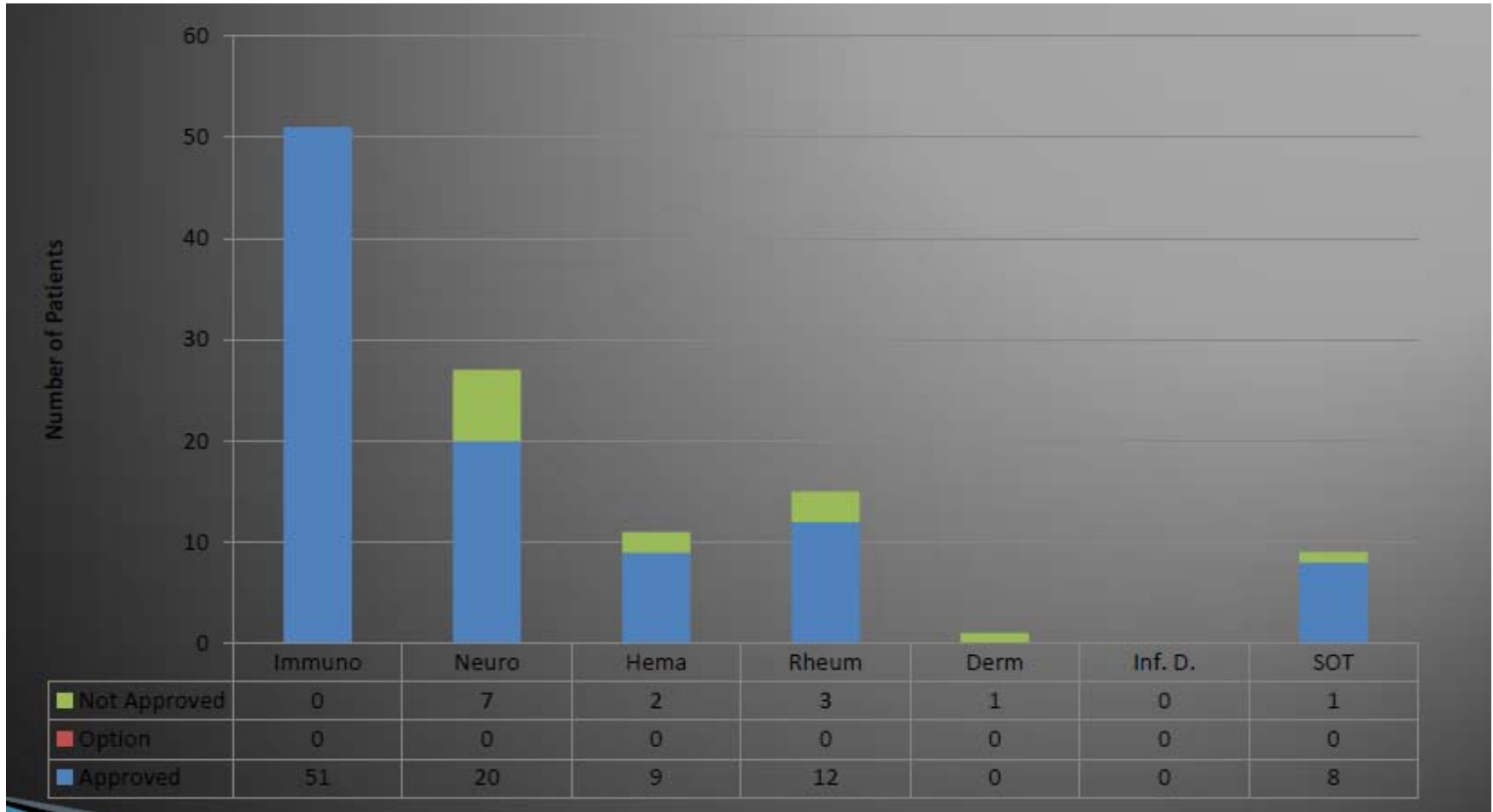
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Approved/Not Approved as per Ontario Guidelines:

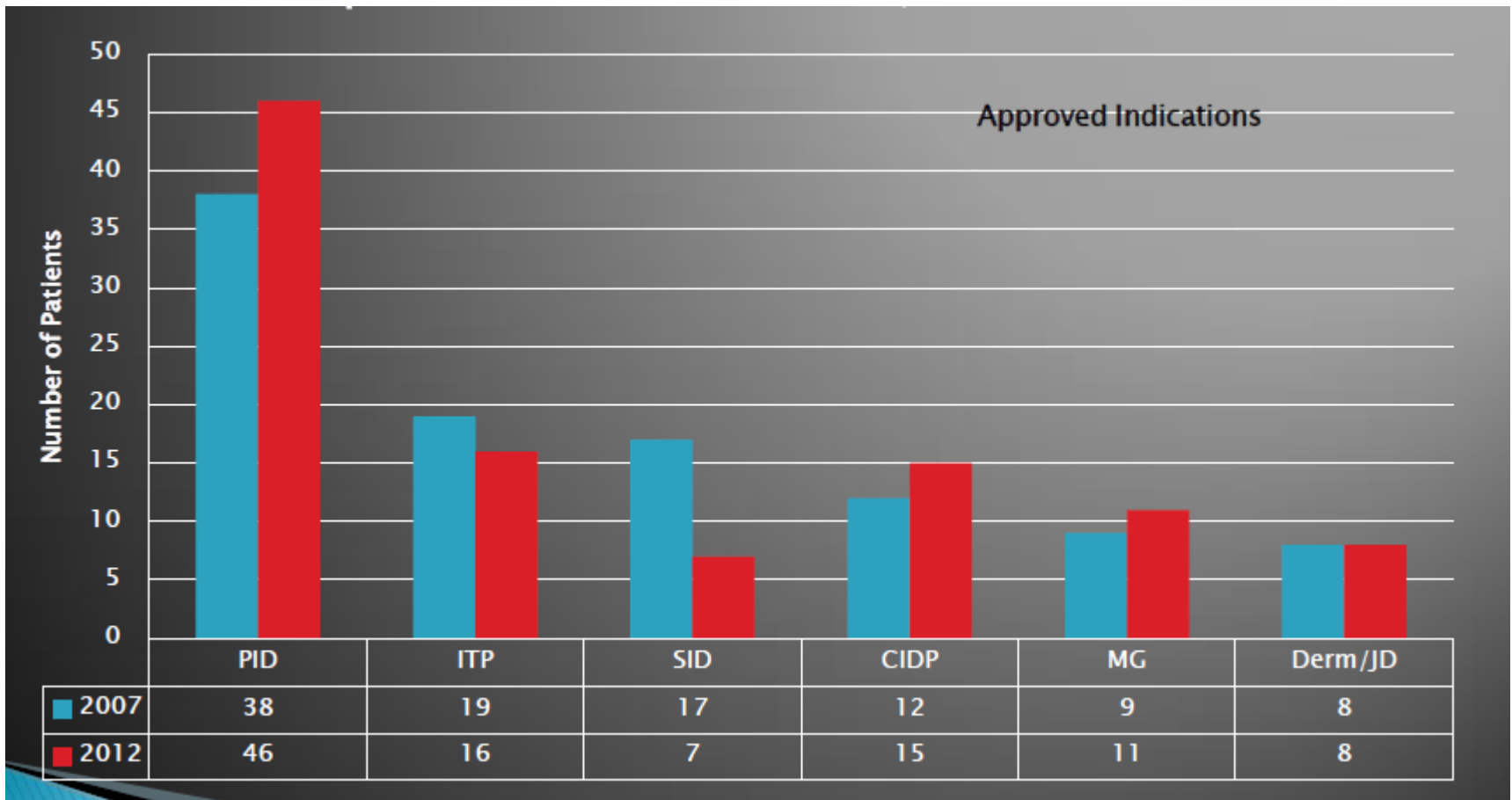
- 86% of requests were for approved conditions
- 2% were for recommended as an option
- 12% were for non-approved conditions



# Hospital Reports



# Hospital Reports



# Recommendations

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1. Continue to support adherence to Ontario IVIG Utilization Management Guidelines (version 2 March 31 2012)
2. Implement detailed changes to the MOHLTC IVIG request form over 2013-14 and 2014-15
3. Review or adjudication of requests outside the guidelines need to be further investigated for future phases of the IVIG strategy



# Recommendations

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4. Continue to support the practice of dose adjustment using the ideal body weight calculation and provide information to hospital transfusion services, through targeted education and site visits
5. Roll out education based on audit results to identified hospitals over the 2013/14 and 2014/15 fiscal years.



# Recommendations

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6. Identify best practices for implementation of the evaluation of clinical outcome and need for reassessment strategies
7. Perform an environmental scan regarding use of subcutaneous immune globulin (SCIG) to assess whether to implement a standard for a provincial home infusion programs



# Recommendations

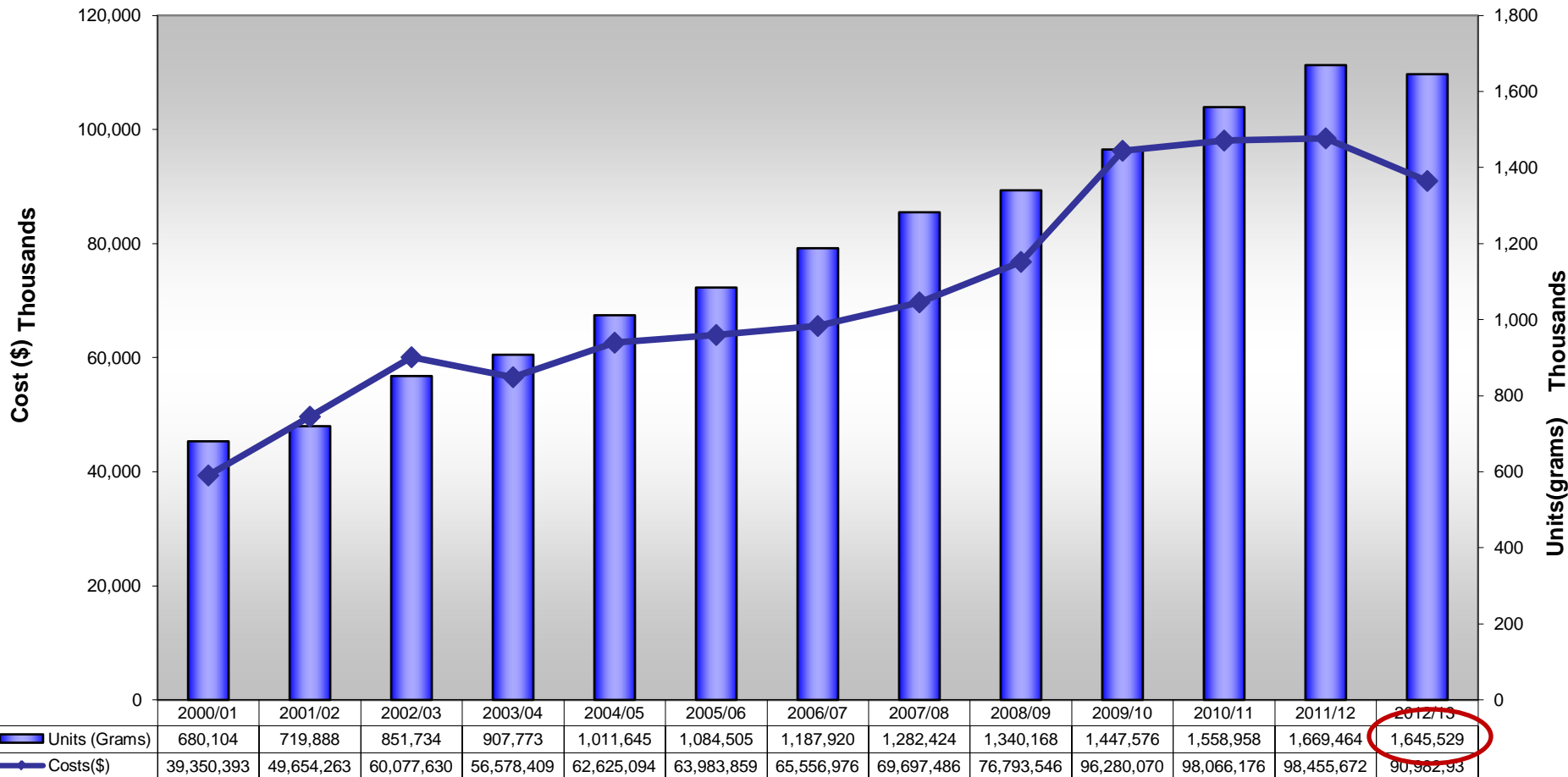
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8. Develop strategies to triage the use of IVIG during IVIG shortages to be included in the provincial contingency plan
9. Accessibility to alternate therapies should be optimized due to evidence of potential significant improvements to patient care married with more cost effective treatments
10. Investigate a means to avoid losing data that is being recorded daily on IVIG request forms



# Success?

**Intravenous Immunglobulin Annual Expenditure and Use in Ontario  
1999/00 to 2012/13**





# Math Class

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What are the numbers?

Decrease in utilization 2012/13

🔴 -1.4%

🔴 23,935 g

🔴 \$54 (cost per g 2012-13)

🔴 =\$1,292,490

What can we do with this.....?



# Math Class

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Forecasting! (a favorite of the MOHLTC!)

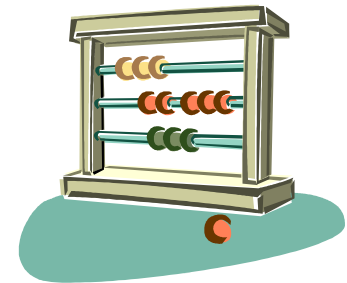
Based on an average increase of 7% annually

Potential savings for 2012/13 were:

🔴 92,927 g plus the 1.4% reduction 23,935 g

🔴 = 95,322 g x \$54

🔴 = \$5,147,414



# Or...

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- 🔴 35,016,421 minutes of OR time
- 🔴 74 nursing or MLT positions
- 🔴 Treatment for 265 PID patients for 1 year



# Acknowledgments

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- Ministry of Health and Long Term Care (MOHLTC), Blood Programs Coordinating Office (BPCO)
- The Ontario IVIG Advisory Panel
- Aicha Traore MSc MD, McMaster University
- McMaster Transfusion Research Program, McMaster University
- Data collection and entry staff at participating hospitals

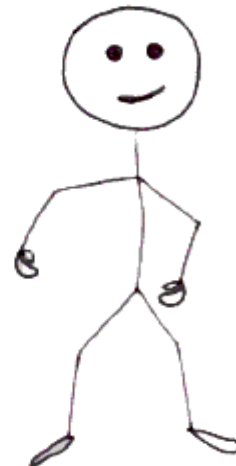


# Congratulations

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Thank you for persevering,  
we appreciate you!

This is  
my  
thank you  
dance!



# Questions

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