Test utilization—
are you driving the bus, chased by the bus or under it?

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Official disclaimer and introduction

- Who am I and why am I presenting this topic?

We all know it's out there……

The Future of Lab Utilization Management-- *Are Lab Formularies the Answer?*

Optimal Utilization of Laboratory Testing

Managing physician use of laboratory tests.

"Choosing Wisely" Program Wants to Encourage Better Utilization of Clinical Pathology Laboratory Tests

Utilization Management 2013

Pulling back the reins on superfluous testing

LABORATORY UTILIZATION IMPROVEMENTS: APPROACHES, OUTCOMES AND IMPACT

An administrative intervention to improve the utilization of laboratory tests within a university hospital

How labs are taming test utilization


Test
Utilization

Where do I start?

"It is the direction and not the magnitude which is to be taken into consideration."

Thomas Paine

Source: http://9teen87spostcards.blogspot.com/

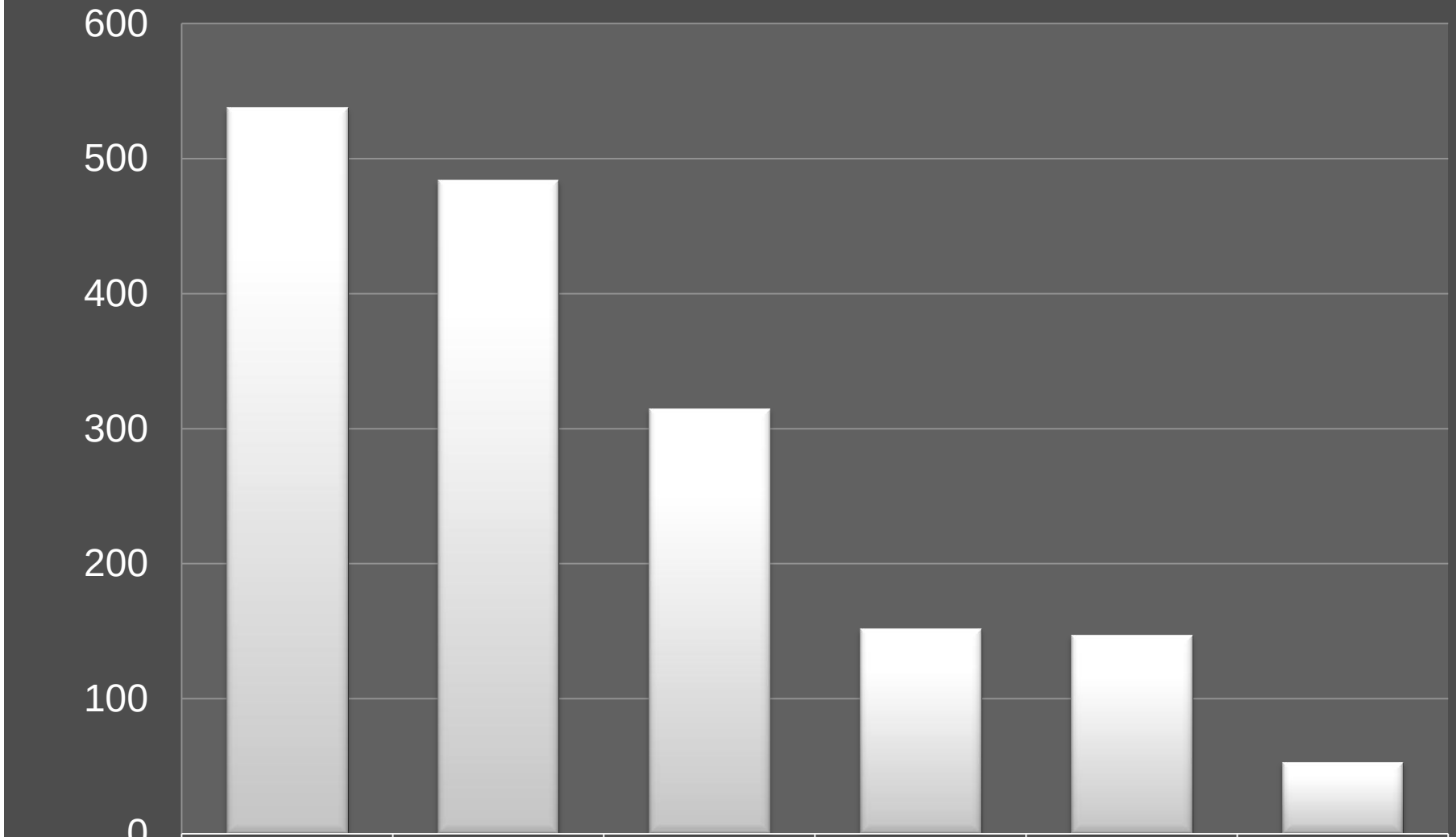
High level view

- What is my menu?
- Where are these tests being done?
- What instrument platforms do I have?
- Who is ordering them?
- How much are they costing me?
- Can we do anything better?
  - TAT
  - Pricing
  - Workflow

Tracking what you do

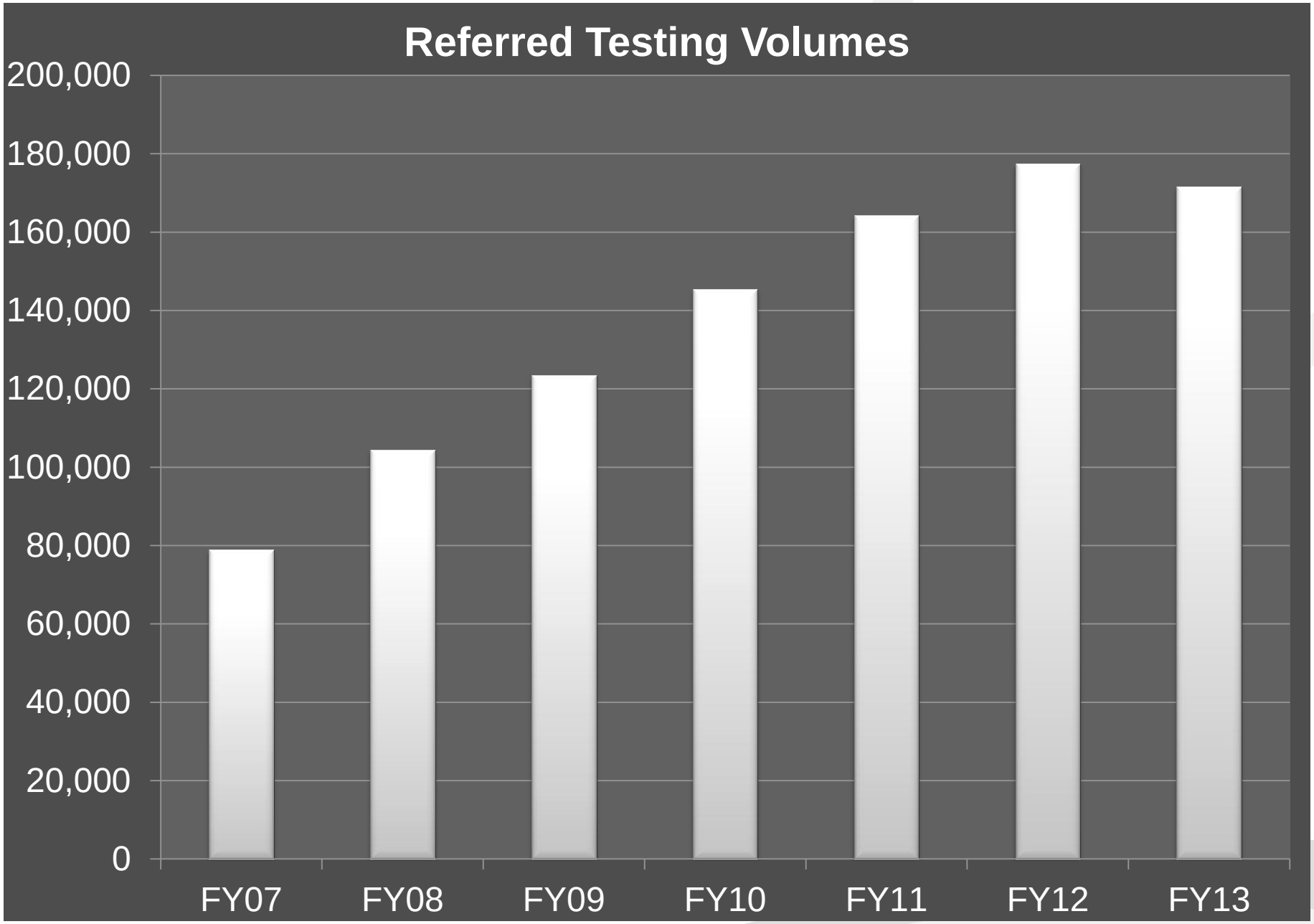
- Year to year comparisons
  - Top 25 in house and referred tests
  - Look for change in volume or order pattern change
    - Physician or practice changes
    - Effect of CPOE, LIS, or HIS changes
    - Evidence based medicine or practice guideline changes and updates
    - Viability of keeping a test in-house

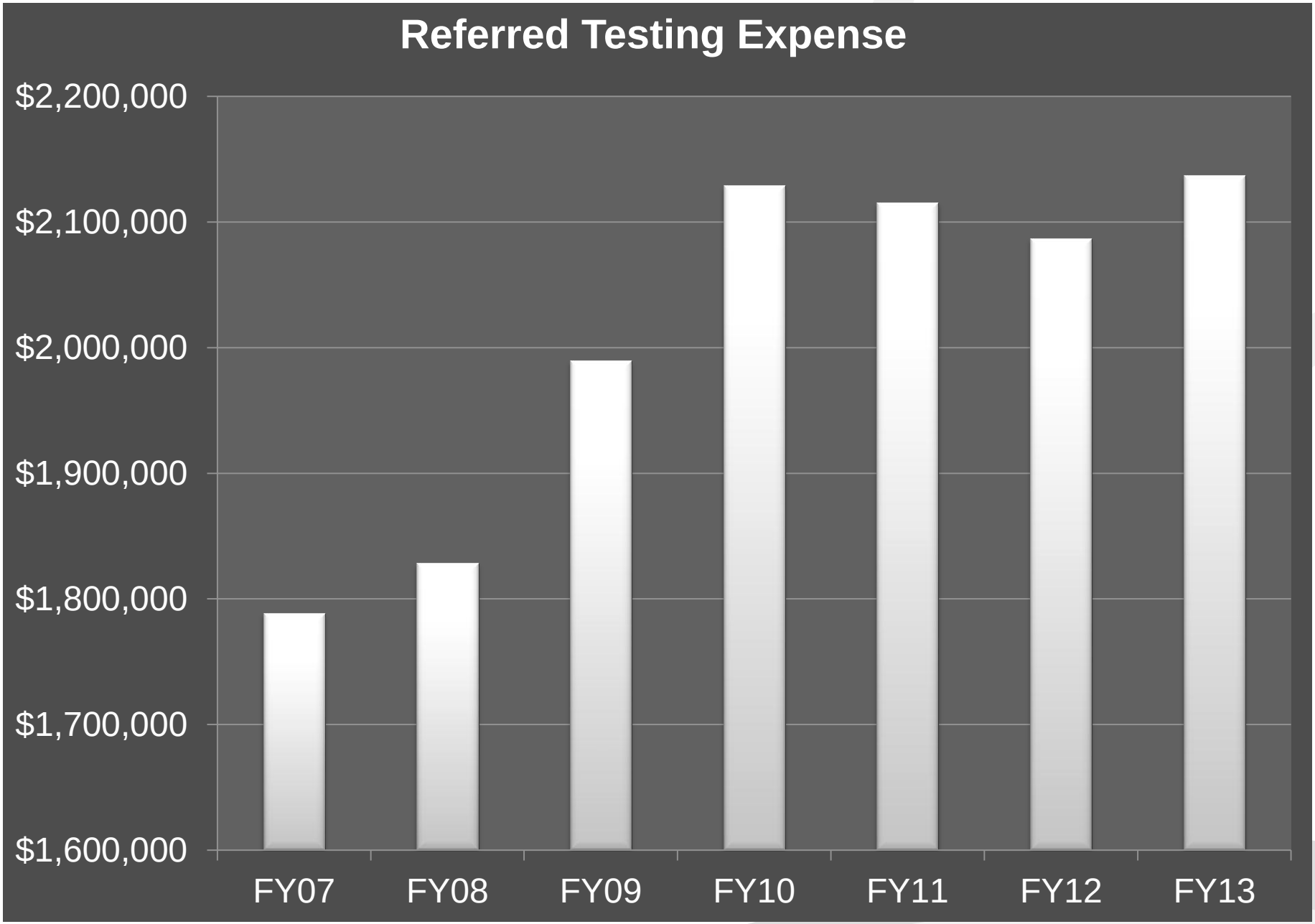
Lipoprotein (a)



	FY08	FY09	FY10	FY11	FY12	FY13
Series1	538	484	315	152	147	53

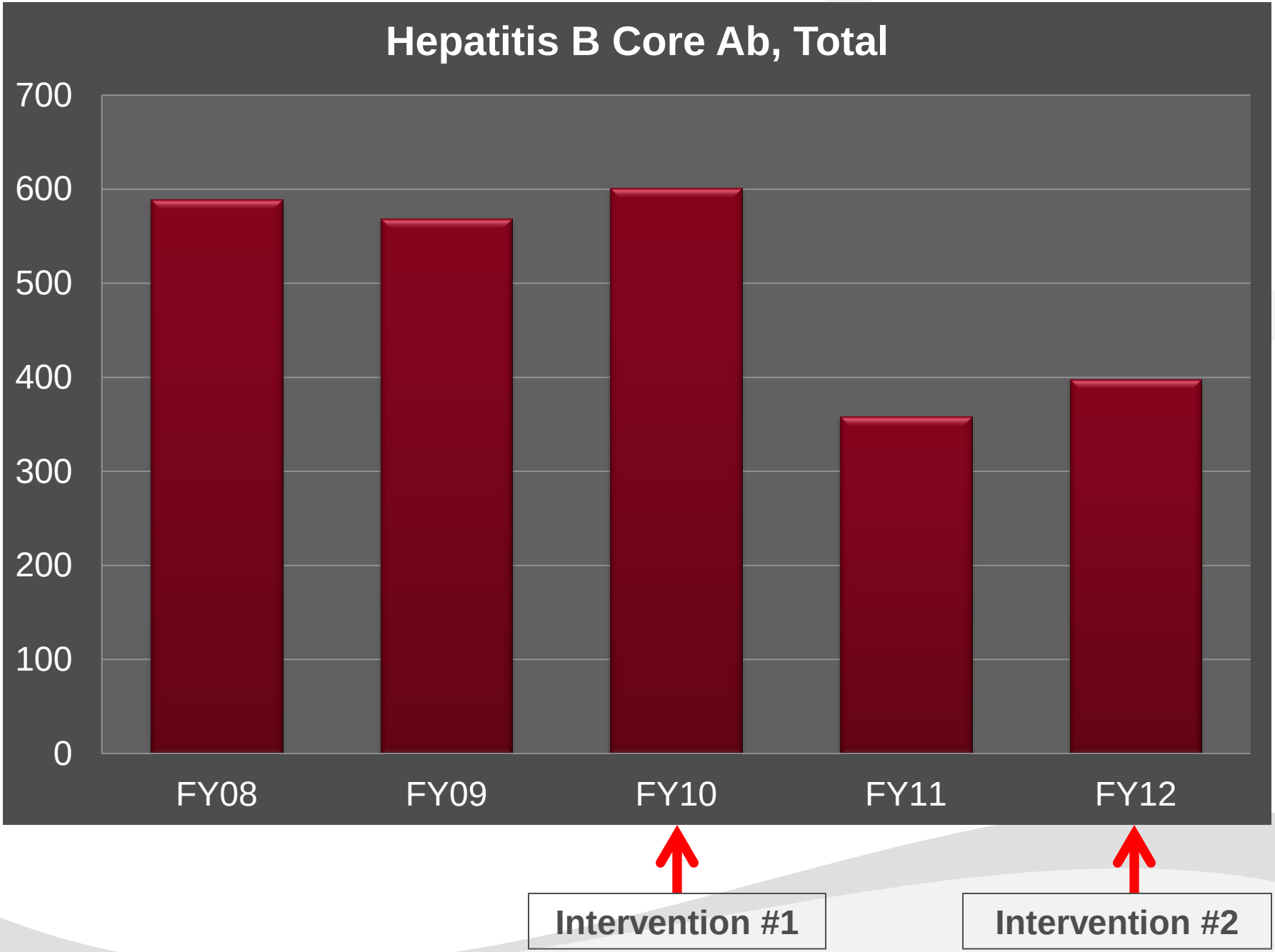
REVIEWING SEND OUT TESTS


Referred Testing Volumes
200,000
180,000
160,000
140,000
120,000
100,000
80,000
60,000
40,000
20,000
0
FY07
FY08
FY09
FY10
FY11
FY12
FY13


Referred Testing Expense
$2,200,000
$2,100,000
$2,000,000
$1,900,000
$1,800,000
$1,700,000
$1,600,000
FY07
FY08
FY09
FY10
FY11
FY12
FY13

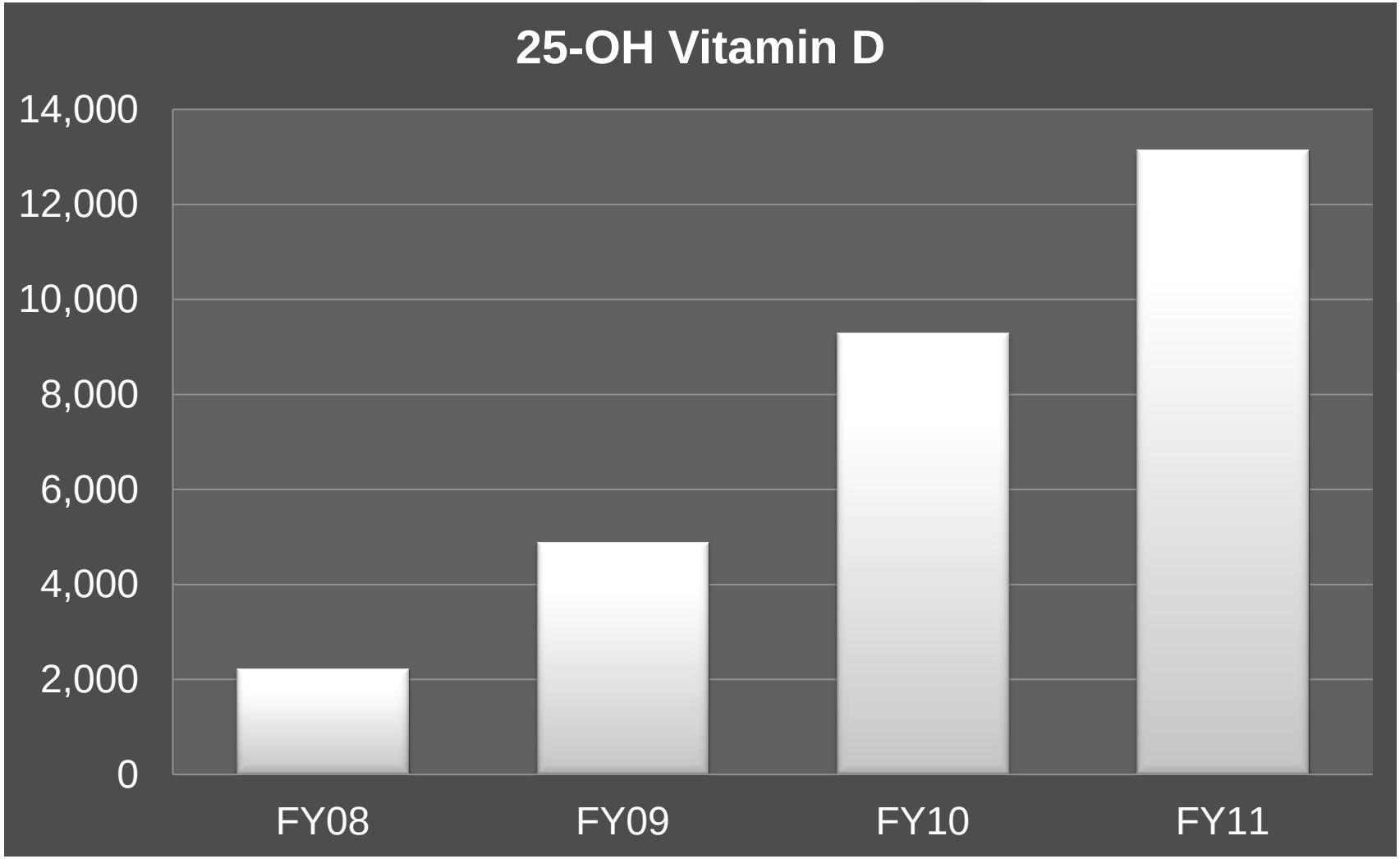
Reviewing your send out tests—things you can do yourself

- Year to year comparisons
  - Top 25 referred tests
  - Look for change in volume or order pattern change
    - Physician or practice changes
    - Effect of CPOE, LIS, or HIS changes
    - Evidence based medicine or practice guideline changes and updates
  - ***Can I do any of these tests myself?***


Hepatitis B Core Ab, Total
700
600
500
400
300
200
100
0
FY08
FY09
FY10
FY11
FY12
Intervention #1
Intervention #2

Hepatitis B Core Ab, Total

	send out cost	in house cost
	$9.92	$3.30
FY12 volume	398	398
total cost	$3,948.16	$1,313.40
Savings		$2,634.76


25-OH Vitamin D
14,000
12,000
10,000
8,000
6,000
4,000
2,000
0
FY08
FY09
FY10
FY11

25-OH Vitamin D

	send out cost	in house cost
	$16.25	$8.95
FY11 volume	13,149	13,149
total cost	$213,671.25	$117,683.55
savings		$95,987.70

Evidence based medicine or practice guidelines

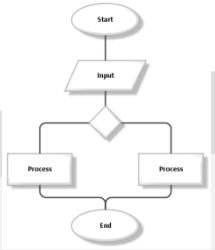
- The “trend” of celiac testing
- Following guidelines

Celiac serology—who, what, where, and can I do better?

- Celiac testing being ordered by family practice, internal medicine, and mid-level providers like PA's and APN's and not just gastroenterologists
- Analysis of testing provided by a specialized laboratory (Laboratory "P") indicated a battery of tests being used for celiac serology testing
- Other national reference laboratories were using reflex testing in response to published guidelines

Celiac serology—shotgun versus reflex

	Lab P	Lab A
	$231.98	$33.16
FY12 volume	182	182
total cost	$42,220.36	$6,035.12
savings		$36,185.24



Reviewing send out tests—now you need some expert help

- How do I compare to other labs?
  - Do we order more/less/same?
- Are we ordering
  - Inappropriate tests?
  - Outdated tests?
  - Duplicate or tests with limited use?

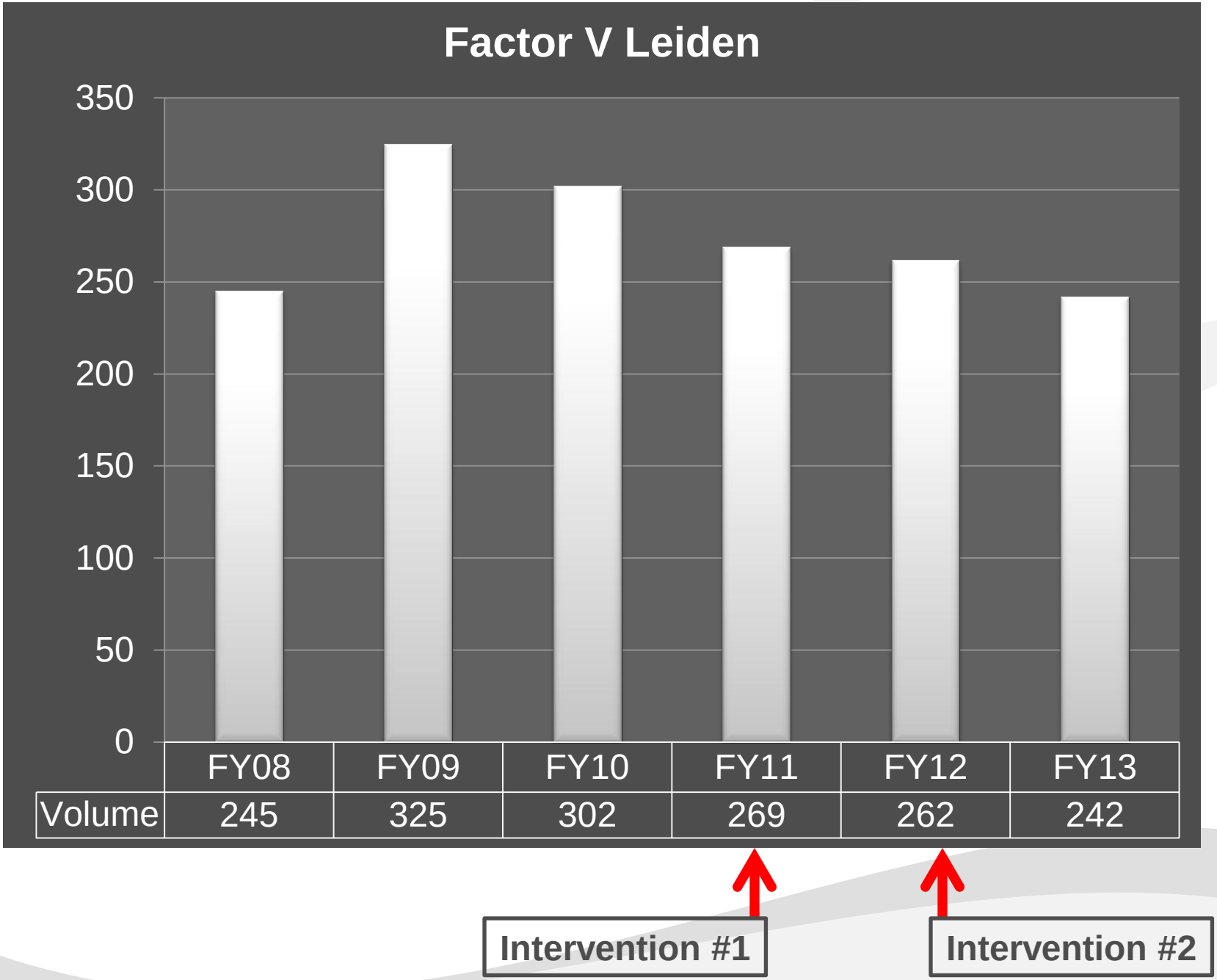
What to look at and why?

- Mis-utilization/underutilization
  - APC resistance and Factor V Leiden
- Suboptimal/overutilization
  - Ova and Parasite testing
- Outdated or inappropriate testing
  - H. pylori serology testing
  - Aldolase

APC and Factor V Leiden

- “For factor V Leiden testing, functional testing (i.e. activated protein C (APC) resistance) is clinically equivalent to DNA testing as an initial test and is less costly.”
- “Abnormal APC resistance test results can be followed up with PCR testing for confirmation and to distinguish homozygotes from heterozygotes.”

Screen with APC


Factor V Leiden
350
300
250
200
150
100
50
0
FY08
FY09
FY10
FY11
FY12
FY13
Volume
245
325
302
269
262
242
Intervention #1
Intervention #2

Where are we now?

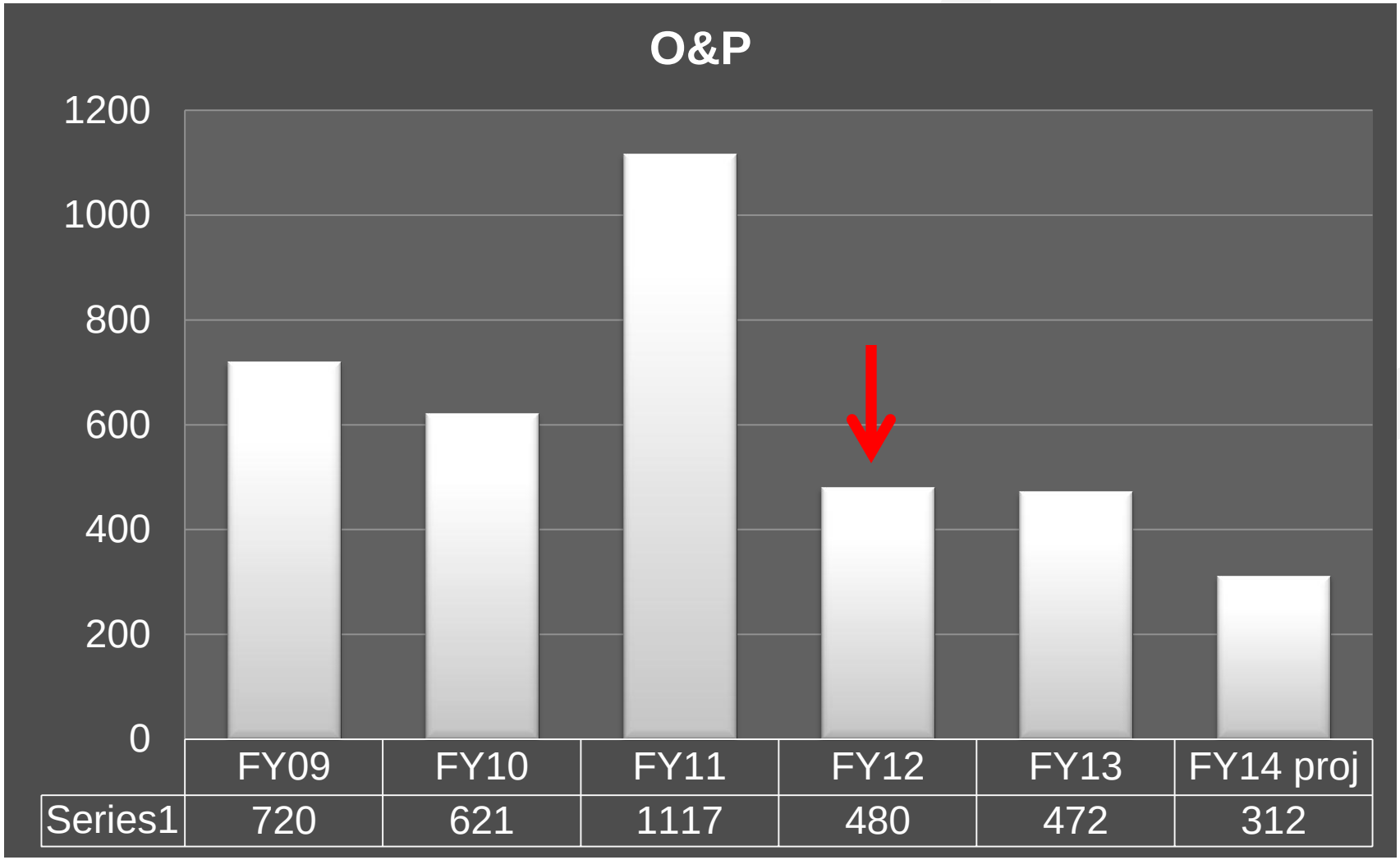
- Still too many Factor V Leiden being sent out
  - Inpatients
  - “shotgun orders” by certain providers
    - One oncologist
    - Multiple locum tenens hospitalists
- What now?
  - CPOE order screen/order set redesign
  - Pathologist intervention with certain providers
  - Bring the test in-house to better scrutinize orders?

Ova & parasite testing

- First referred out in FY09
  - Staffing
  - Expertise
- No criteria for specimen submission or pre-screening
  - *“If you have a specimen, it gets sent out”*

Based on consultation……

- Specimen criteria set up for sending out O&P beginning June 2011 and communicated by pathologist responsible for Microbiology
  - If patient is immunocompromised
  - If patient has a travel history
- If criteria not met, in-house Giardia and Cryptosporidia testing performed and specimen held 30 days
  - This information is communicated in report
- In 1st year
  - 57% reduction in unnecessary testing
  - Approximately $38,000 in savings

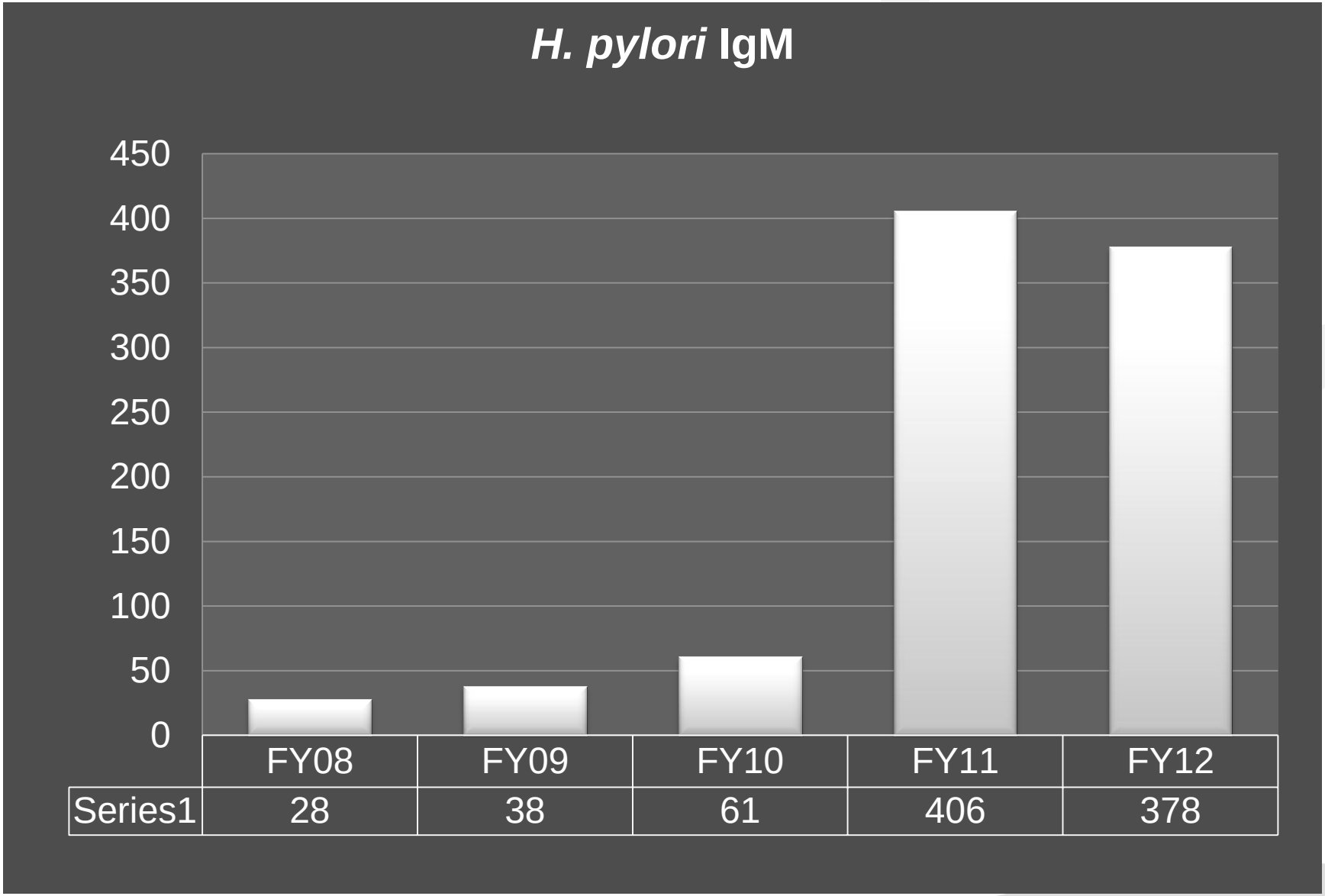


We have a problem

Outdated or inappropriate testing

- *H. pylori* serology testing is not recommended per evidence based medicine
- Better methods available
  - Breath test
  - Stool antigen
- SAH appeared to order more than “normal” compared to other labs

H. pylori IgM


450
400
350
300
250
200
150
100
50
0
FY08
FY09
FY10
FY11
FY12
Series1
28
38
61
406
378

- Drill down revealed inappropriate ordering across the system and not isolated to any one clinic or provider
- Communication regarding more appropriate testing (newsletter, specific individual letters, electronic “Dr. Hub” posting) not effective at changing ordering behavior
- All *H. pylori* serology tests removed from computerized order entry system and letters issued announcing discontinuation as of June 2012
  - Link to appropriate testing guidelines provided in letters

Aldolase

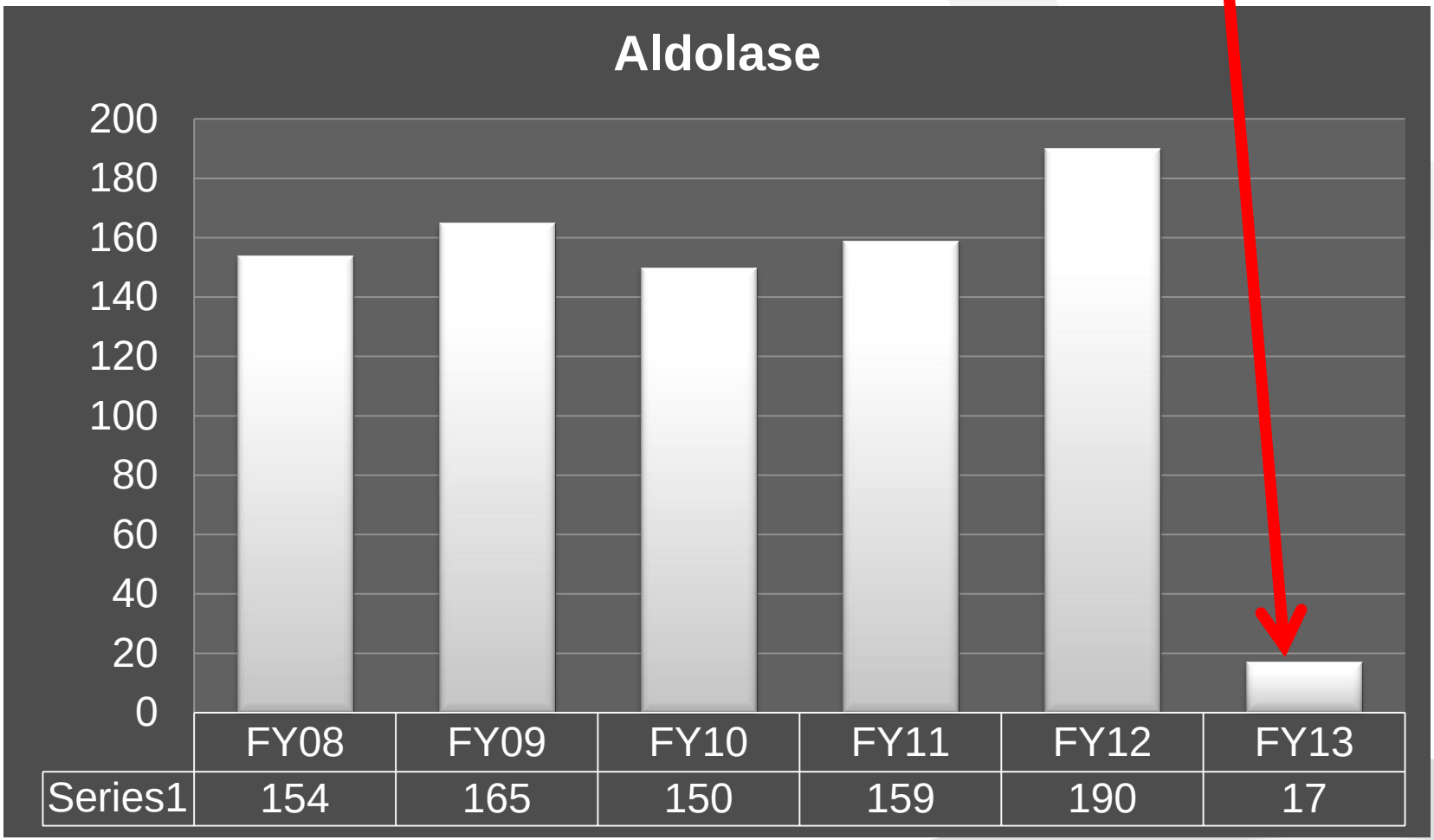
- Considered outdated and of little clinical utility
- Drill down on orders
  - Single location
  - PA's and APN's
- Tried communication strategy regarding use of CK as an alternative

FUTILITY

No matter how hard you try, you will fail.

Still incomplete intervention

Aldolase—my nemesis



Success factors

- Data, data, and more data
- Willingness to dig into data
  - Get it to “talk to me”
- Real world savings
- Support from our reference lab (on-call pathologist, subject experts, online resources)
- “Can-do” attitude from lab supervisors to bring testing in-house if needed
- Properly motivated and informed physicians

Strive for progress not for perfection.