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## BCN Checkpoint: Same-day confirmation of reactive HIV rapid test with Point Of Care PCR test accelerates linkage to care and reduces anxiety

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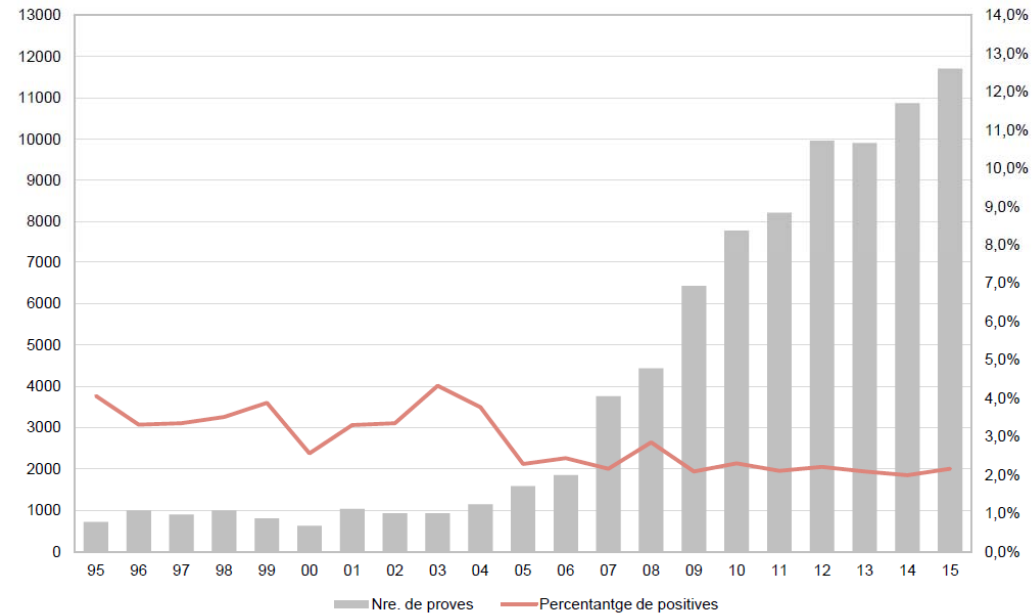
# Introduction

- BCN Checkpoint introduced the use of [HIV rapid tests](#) in community-based centers in Europe in January 2006
- The [model of community intervention for early HIV detection](#) developed by BCN Checkpoint is recommended by WHO and ECDC, and over the years has inspired the creation of similar centers throughout Europe



# Introduction

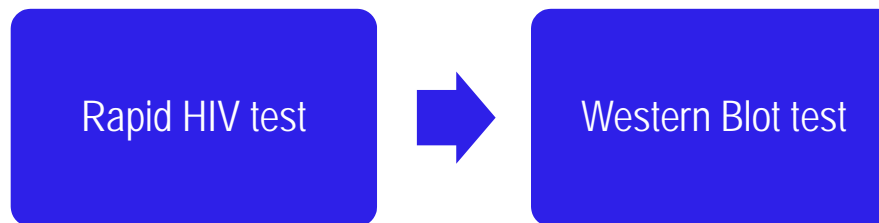
## Nombre de proves realitzades i percentatge de positives, 1995-2015.



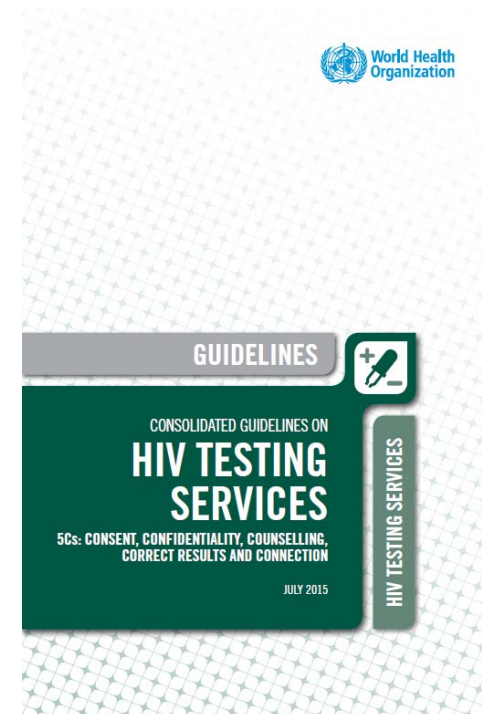
# Background

“Any specimens that are reactive on the first assay (A1+) should be tested again using a different assay (i.e. different antigen preparation, different manufacturer of key components) (A2).”

“For specimens that are reactive on the first-line assay and the second-line assay (A1+; A2+), HIV serostatus should be reported as HIV positive.”



**Confirmation takes  $\pm$  7 days**

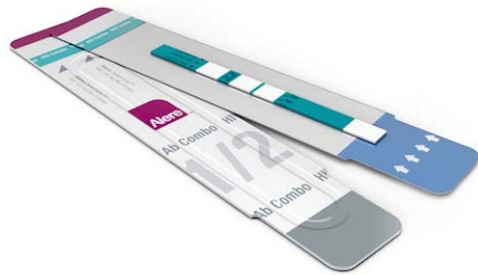


# Objective

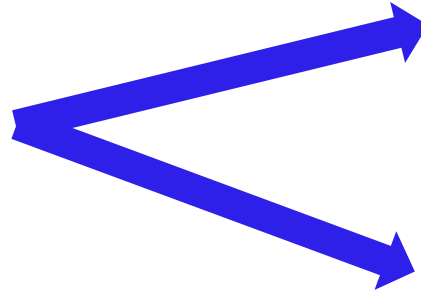
To assess the use of Point of Care PCR testing  
for a same-day confirmation

# Methods

Period of evaluation:  
March 2015 – September 2016



Alere Determine™ HIV-1/2 Ag/Ab Combo  
Alere™ HIV Combo (as from March 2016)



GeneXpert: Xpert® HIV-1 Qual test

(Lower limit of detection: 278cp/ml, 95%IC: 253-304 cp/ml)



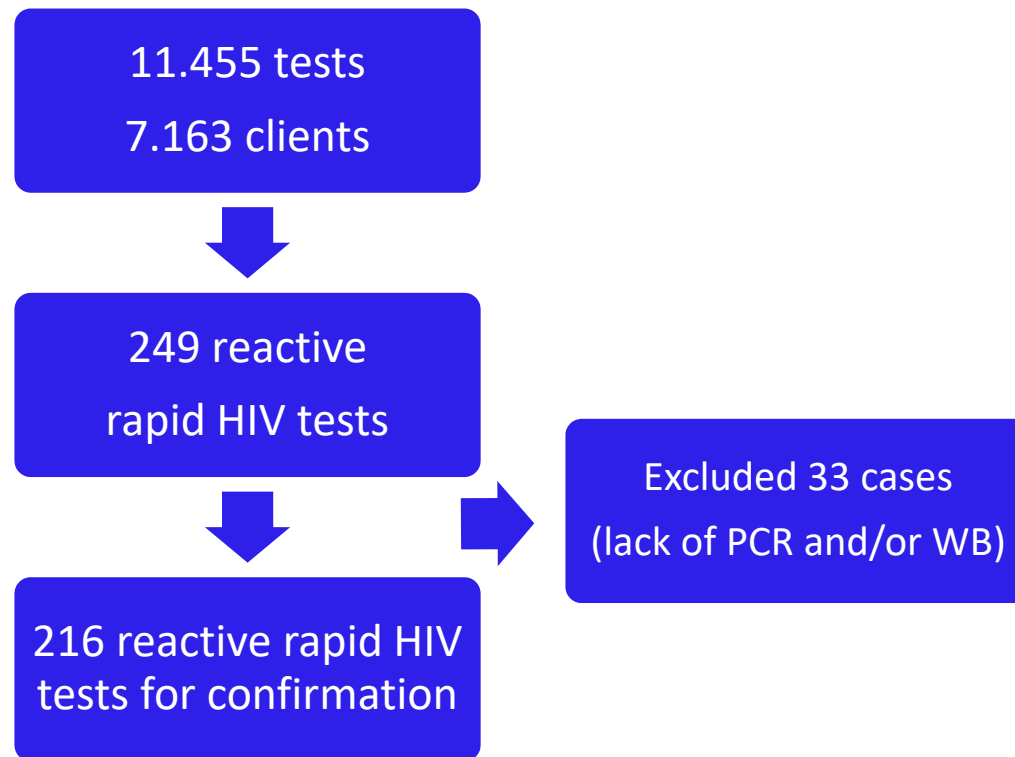
RESULT	POSITIVE	NEGATIVE
ULT		
18 kDa	-	
**23-25 kDa	-	
28 kDa	-	
30 kDa	-	
**31 kDa	+++	
**34 kDa	-	
**39 kDa	+++	
**41 kDa	IND	
45 kDa	-	
58 kDa	-	
66 kDa	-	
**83-93 kDa	IND	

d not be based on laborat  
conjunction with clinical

Standard Western Blot test

# Results

Period of evaluation: March 2015 – September 2016



# Results

Results	n	%	Serostatus HIV	Interpretation
PCR positive WB positive	194	89.8%	+	Confirmed positive results
PCR negative WB negative or indeterminate	14	6.5%	-	Confirmed false positive results
PCR positive WB negative or indeterminate	3	1.4%	+	Recent infections
PCR negative WB positive	5	2.3%	+	Confirmed positive results: HIV controllers
<b>Total</b>	<b>216</b>	<b>100%</b>		



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**96,3% concordant results**

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**Reducing time for confirmation to 90 minutes  
has been possible in 91.2% of cases (197/216)**

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**PCR negative results needed an additional test to distinguish false positive results from Viral Load results below level of detection**

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**3 cases confirmed where standard testing would have missed these infections, which has special importance in concentrated epidemics**

# Summary

- The POC PCR assay is easy to use and feasible in a community-based center
- Reducing time for confirmation to 90 minutes has been possible in 91.2% (197/216) of cases with positive PCR result
- In cases of a negative PCR result an additional test is needed (WB, Elisa or PCR quantitative)
- PCR assays permitted to confirm very recent HIV infections
- Clients expressed satisfaction with same-day confirmation and less anxiety

# Acknowledgements

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Víctor Gómez  
Francisco Añez

