

# Key Slides from Presentation

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# Cost of Blindness and Vision Impairment

Total visually impaired population in the ROI: 224,832

## Cost of Blindness report 2010

No. of blind individuals: 12,995  
(5.78%)

Financial Cost per person:  
€21,288 (71.66% of total FC)

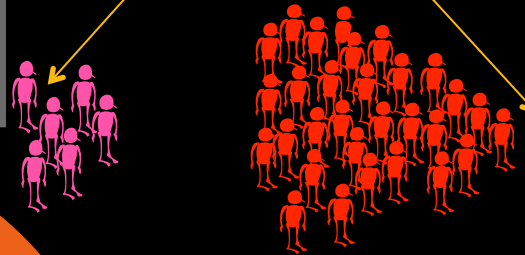
Economic Cost per person:  
€62,270 (37.8% of total EC)

## Cost of Sight Loss report 2010

Total  
visual impaired individuals:  
224,832

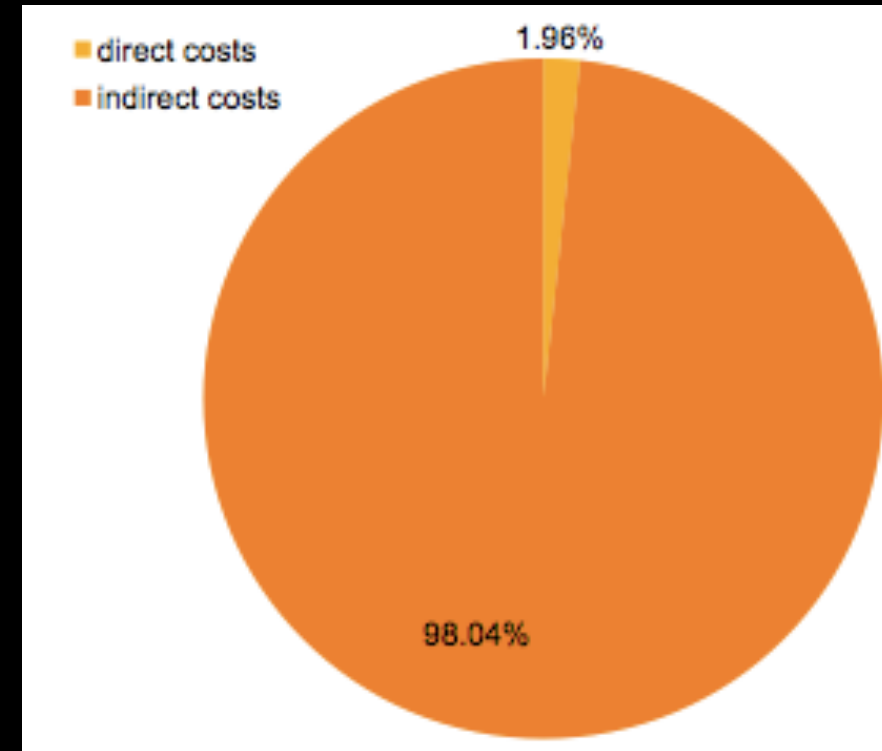
Financial Cost per person:  
€1,717 (28.34% of total FC)

Economic Cost per individual:  
€9,533 (62.2% of total EC)



# Conclusions

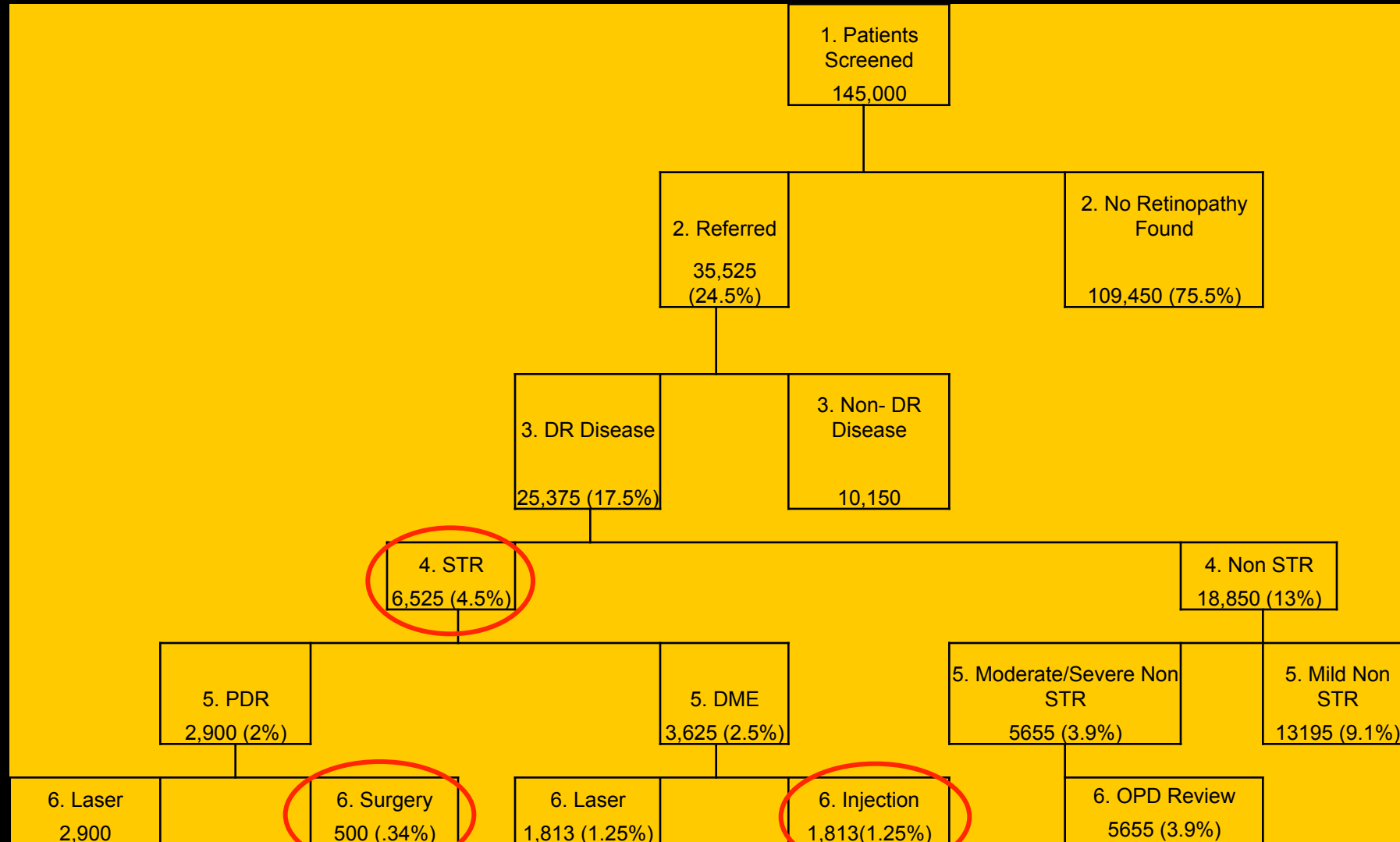
- Financial cost is €21,288 per person
- Economic cost is €62,230
- Majority of costs to society outside healthcare
- Important to protect services for these patients/clients
- Vital data ahead of follow up study on Cost of Blindness Avoidance



# Criteria for Calculations

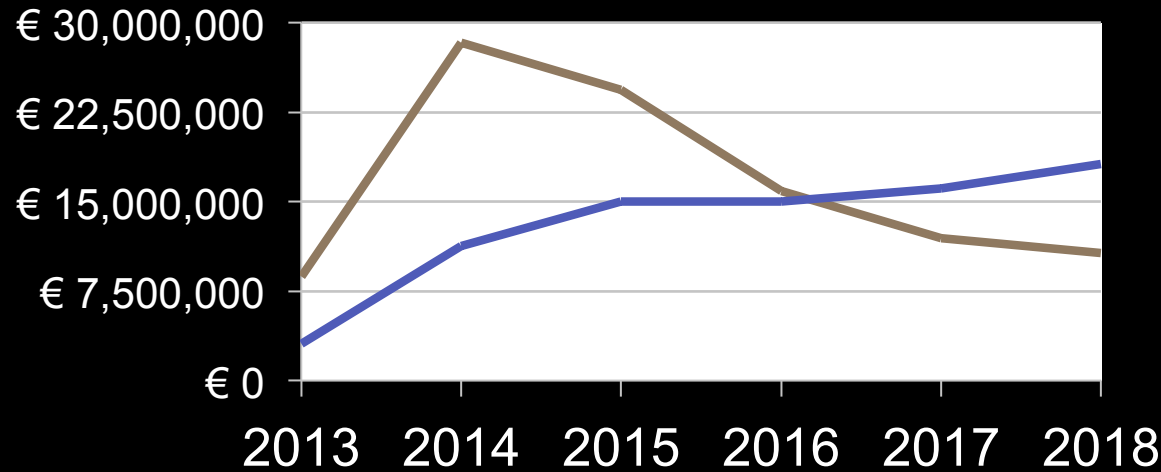
- Cost of Blindness is calculated in Financial rather than Economic Terms
- Estimates for referral to treatment centres was at the upper range of predicted based on publications available up to 2012
- Calculated costs for Clinic Visits, OCT scans, Angiography, Laser and Injections were based on the calculated costs of providing these services at a public hospital facility in Ireland (Mater University Hospital). Follow up of referred cases was based on ETDRS guidelines
- Number of laser treatments required were based on experience (published and personnel communication) of colleagues at Moorfield's Eye Hospital and St Georges Hospital London (Pan-retinal laser and Focal laser). Valid as at 2013
- Cost of drug was based on use of a licensed agent (2013)
- Injection regime for this calculation was based on Published Trial data (RESTORE) as of 2013 (Calculated mean injections required in Year 1 (7) Year 2 (4) and Year 3 (3): Protocol T implementation would increase average number of injections required in year 1 and 2)
- No Surveillance protocol in place at time of establishment or currently

# Overview of a National DR Programme



# Cost and Benefits of the DR Care Programme

- Cost of screening and related vision loss costs
- Cost-without screening of treatment and related vision



- Estimates are based on a 100% uptake of screening
- The current uptake in screening is under 60%
- There are currently 6-8,000 invitations for screening being sent per month.
- There are currently 7 designated treatment centres around the country

The DR Care Programme is fully funded for screening and treatment nationally

	2013	2014	2015	2016	2017	2018	Total
<b>Cost of screening and related vision loss costs</b>	€ 8,683,371	€ 28,317,211	€ 24,338,440	€ 15,858,639	€ 11,962,585	€ 10,710,221	€ 99,870,466
<b>Cost-without screening of treatment and related vision loss costs</b>	€ 3,076,261	€ 11,300,734	€ 15,038,494	€ 15,008,062	€ 16,101,561	€ 18,173,224	€ 78,698,336
<b>Incremental Cost/Savings</b>	<b>€ 5,607,110</b>	<b>€ 17,016,477</b>	<b>€ 9,299,946</b>	<b>€ 850,576</b>	<b>€ 4,138,976</b>	<b>€ 7,463,003</b>	<b>€ 21,172,130</b>
<b>Cases of blindness avoided</b>	21	43	43	43	43	43	235
<b>Cases of Moderate VI avoided</b>	63	126	126	126	126	126	695
<b>Cases of Mild VI avoided</b>	169	338	338	338	338	338	1857

# Notes to Costing Model in Previous Slide

- The Previous slide calculations are still correct but with the delayed roll out of the treatment centres we are ~12 months behind on the model
- The model assumes 100% uptake (necessary for calculation) but current uptake is still < 60%
- Many patients are still being treated in private facilities (we are commencing a project shortly to track and include this data)
- Currently funding retained patients in centres

# Photography & Grading Service Providers

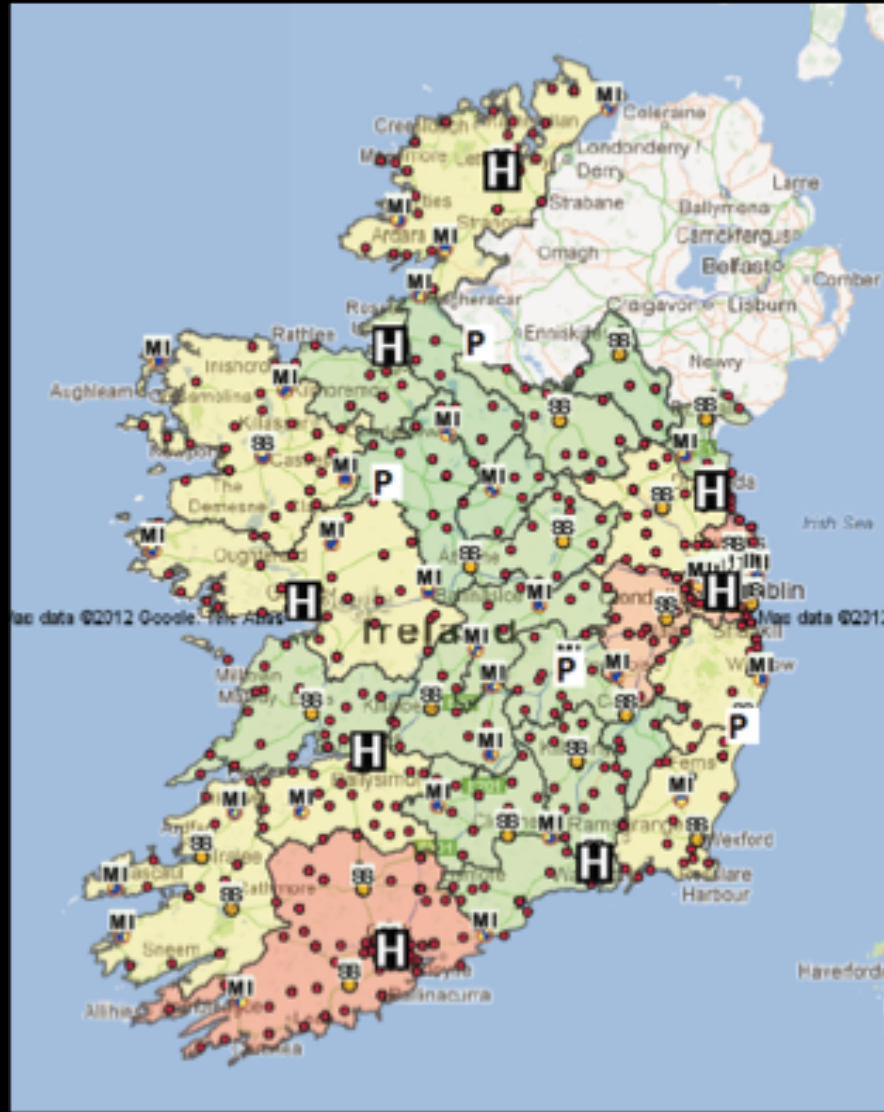
- Two Private Service Providers:
  - Global Vision
  - EMIS Healthcare (Previously: Medical Imaging Diabetic Retinopathy Screening Service Ltd. (MIDRSS))
- Optomize is the Screening management programme we use



# Screening Regions

<b>Region 1</b>	<b>Region 2</b>
<b>Photography and Grading Service Global Vision Free phone 1800 303633</b>	<b>Photography and Grading Service MIDRISS Ltd Free phone 1800 992968</b>
<b>Carlow</b>	<b>Cavan</b>
<b>Dublin</b>	<b>Clare</b>
<b>Kildare</b>	<b>Cork</b>
<b>Kilkenny</b>	<b>Donegal</b>
<b>Laois</b>	<b>Galway</b>
<b>Louth</b>	<b>Kerry</b>
<b>Offaly</b>	<b>Leitrim</b>
<b>Wexford</b>	<b>Limerick</b>
<b>Wicklow</b>	<b>Longford</b>
	<b>Mayo</b>
	<b>Meath</b>
	<b>Monaghan</b>
	<b>Roscommon</b>
	<b>Sligo</b>
	<b>Tipperary</b>
	<b>Waterford</b>
	<b>Westmeath</b>

# Screening



# Treatment



# Standards for Quality Assurance in Diabetic Retinopathy Screening

First edition

## Objective 5:

To maximise performance of screening test: To ensure grading is accurate

Standard	Criteria	Minimum	Achievable
1	Every registered grader to participate in ongoing training.	80% of grading staff are compliant	100% of grading staff are compliant
2	Evidence of clinical lead (or nominated senior grader) providing outcomes of the ongoing training to grading staff on a regular basis.	Completed 6-monthly	Completed 6-monthly
3	Second full disease grading for images with diabetic retinopathy or other non-diabetic eye disease outcome on first grading.	100%	100%
4	Normal images with no diabetic retinopathy which are re-graded independently as part of quality assurance.	10% of normal images re-graded	10% of normal images re-graded
5	Arbitration grading of all image sets where there is disagreement as to the grade between the first full disease grading and the second full disease grading.	100%	100%
6	Referral outcome grading of all image sets that are deemed referable to ophthalmology clinic.	100%	100%

KPI-5(1) Numerator = number of registered graders participating in ongoing training in a defined period.  
Denominator = total number of graders registered.

KPI-5(3) Numerator = number of image sets with diabetic retinopathy or non-diabetic eye disease in a time period where second full disease grading took place.  
Denominator = total number of image sets with diabetic retinopathy or non-diabetic eye disease at first full disease grading in the same time period.

KPI-5(4) Numerator = number of images sets with no diabetic retinopathy after first full disease grading in a time period that are re-graded.  
Denominator = total number of image sets with no diabetic retinopathy after first full disease grading in the same time period.

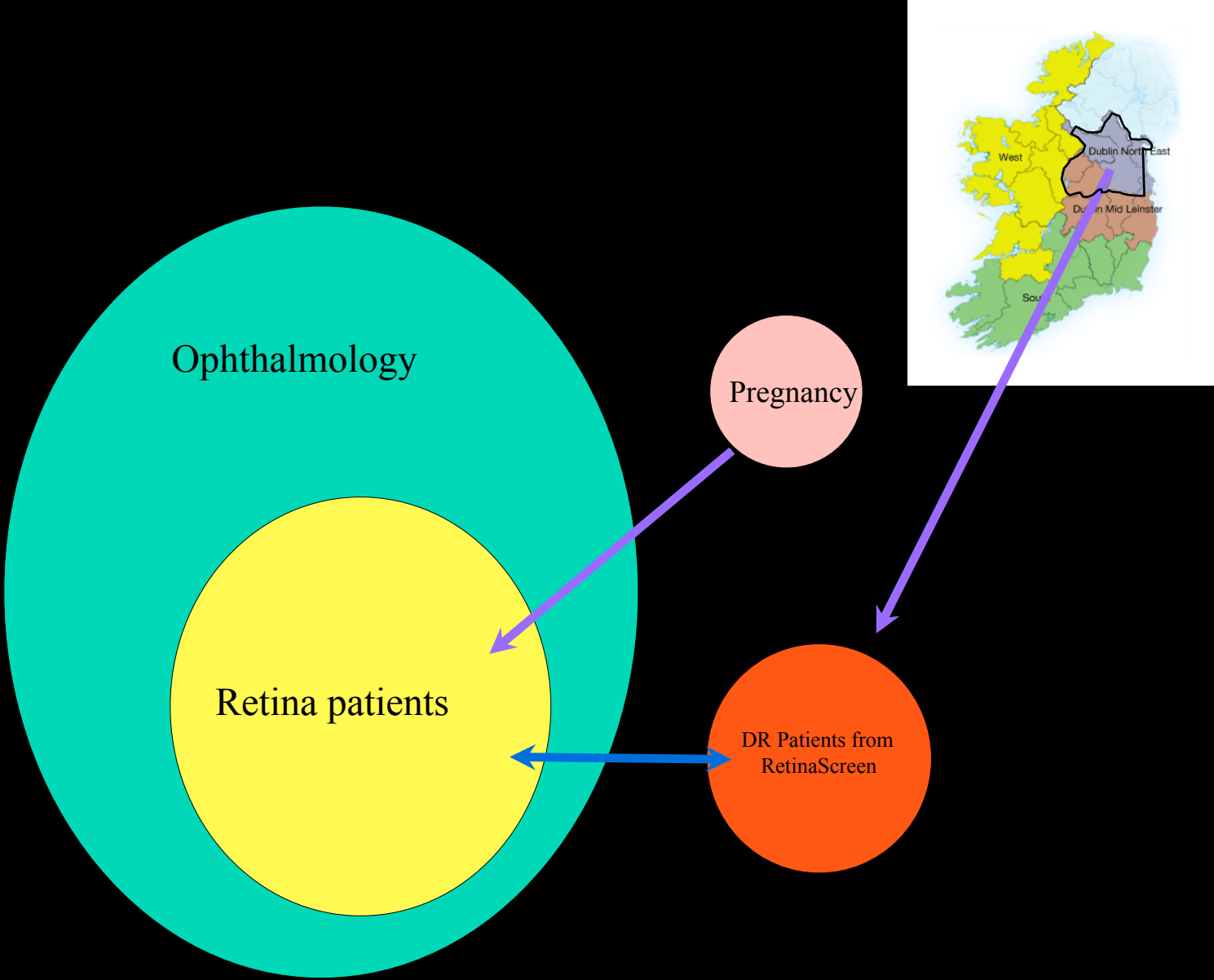
KPI-5(5) Numerator = number of image sets where arbitration grading was carried out in a time period.  
Denominator = total number of images that required arbitration grading in the same time period.

KPI-5(6) Numerator = number of image sets where referral outcome grading was carried out in a time period.  
Denominator = total number of image sets that are deemed referable to ophthalmology clinic following first full disease, second full disease or arbitration grading in the same time period.

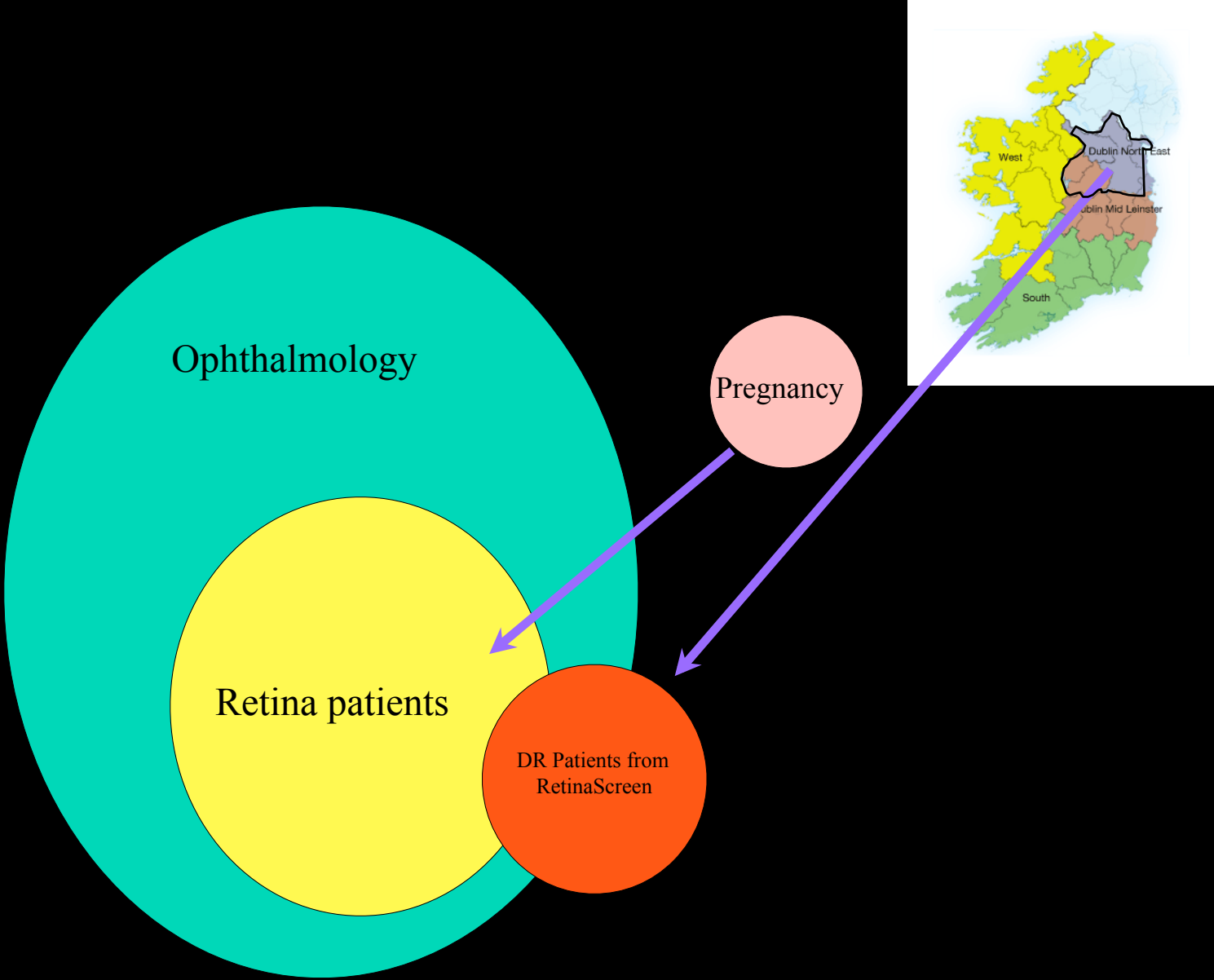
# Clinical Practice Guidelines for Treatment Clinics

First edition

# Referral Overview



# Referral Overview



# Treatment Centres: Structure

- Within existing units but receiving dedicated funding (Activity Based)
- Capacity for referral in each unit is 500-2000 / annum
- Retained in Ophthalmology rate is 55-65%
- Programme provided up front capital and infrastructural support
- Must use National Retinopathy programme (Optomize)
- Needed to have trained personnel in place
- Facility to run clinics, treat with laser and injections (room to RCOPHTH published standard) and access to vitreo-retinal surgical service (in house or vis Service Level Agreement)

# Treatment Centres: Personnel

- Lead Clinician
- Treating Ophthalmologist(s)
- Lead Administrator (and support depending on patient volume)
- Nursing support
- Photography