

Diabetic Eye Screening Wales

Diabetic Eye Screening Wales is designed to detect sight threatening retinopathy at an early stage before visual loss occurs. Every eligible, registered person with diabetes in Wales aged 12 years and older is invited for regular retinal screening. The service is community based, delivering from clinics sites that are chosen to allow patients reasonable and equitable access.

What is Diabetic Retinopathy ?

Diabetic Retinopathy is a complication of diabetes caused by damage to the tiny blood vessels in the retina, as a result of high levels of sugar in the blood stream.

The small blood vessels at the back of the eye become damaged, and start to leak. This can lead to sight loss if left untreated.

Diabetic retinopathy may have no obvious symptoms until it is well advanced where treatment is likely to be less effective.

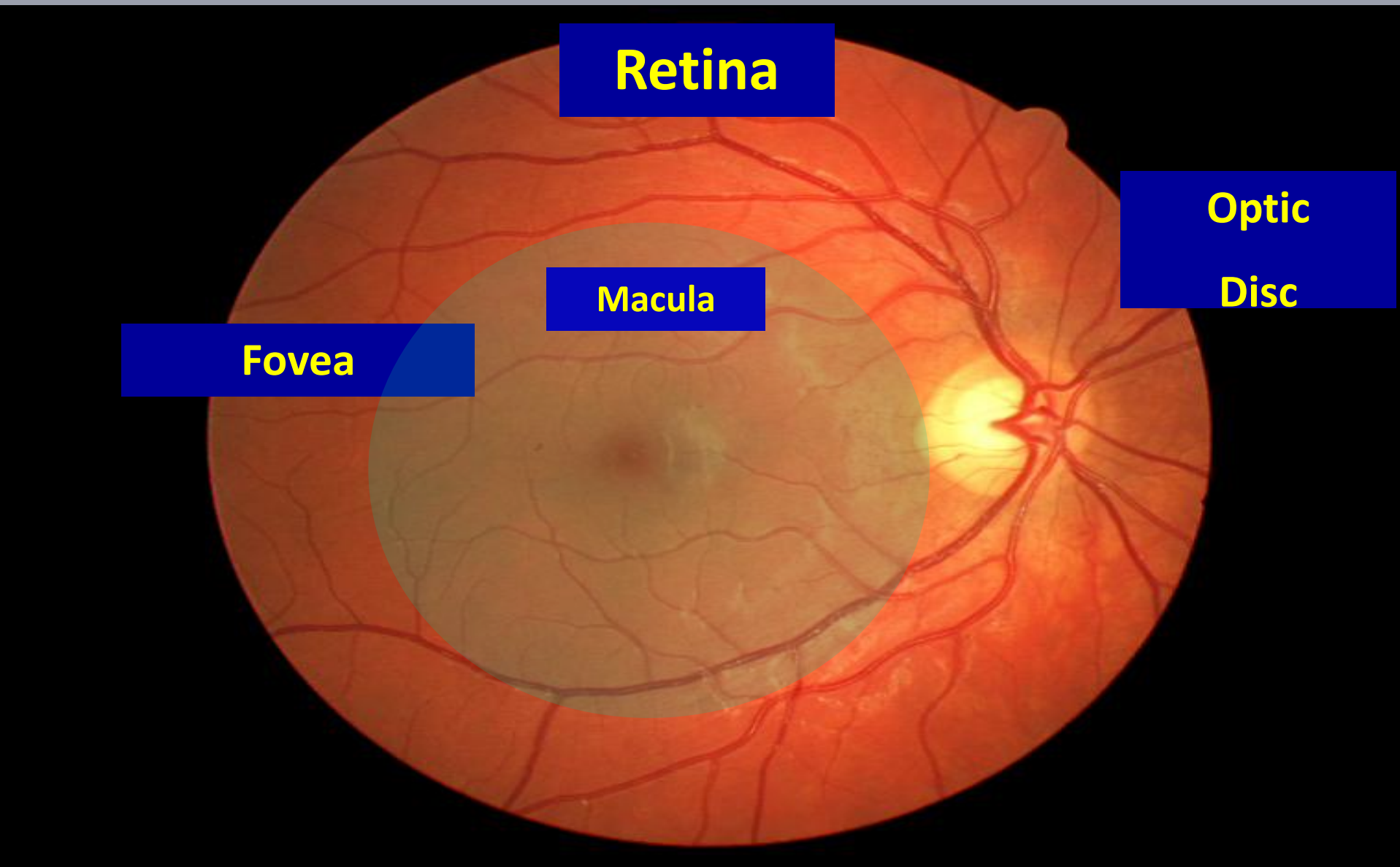
Retinal Screening

Retinal screening is a straightforward procedure. Screening teams assess suitability for screening, measuring and recording visual acuity and administer eye drops. Photographs of the retina are obtained using a specialist retinal camera. The images are then later assessed by Retinal Graders for the presence and severity of diabetic retinopathy. If patients have sufficient levels of diabetic retinopathy, they are then referred to Ophthalmology for further assessment.



Retinal Grading Team

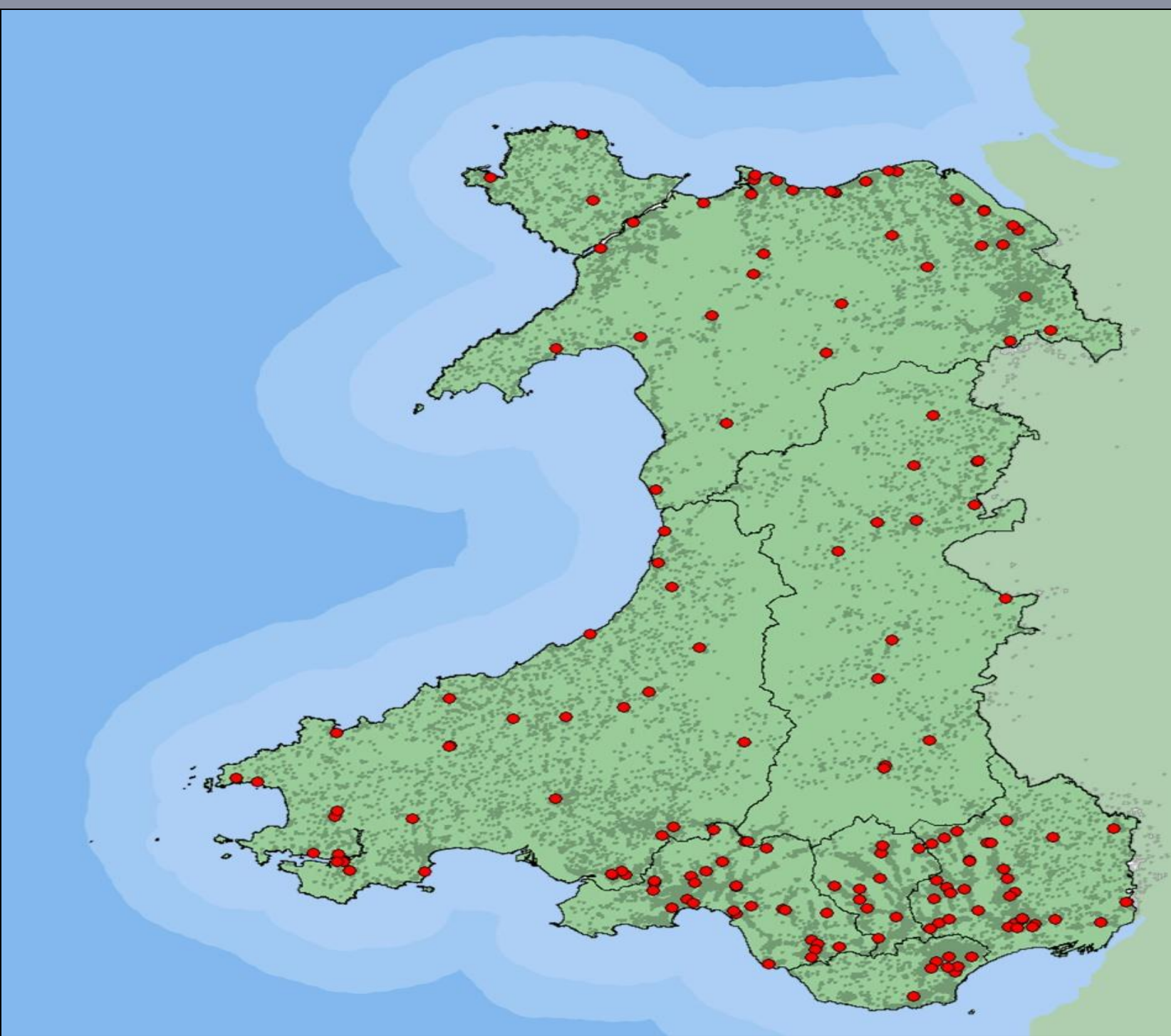
A team of 14 retinal graders look for signs of diabetic retinopathy using the Retinal Screening System (Optimize). On completion, results are sent to patients and their healthcare professionals



Diabetic Maculopathy (M1)



DESW Clinic Venues



Clinic venues are selected to provide reasonable and equitable access to patients:

170 venues - GP practices, community centres

2 mobile units (situated in car parks)

Failsafe

The NHS Diabetic Eye Screening Programme (NDESP) has developed failsafe processes as a back-up mechanism in addition to usual care. These ensure that if something goes wrong in the screening pathway, processes are in place to identify:

- what is going wrong
- what action follows to ensure a safe outcome.

Example of Failsafe Process

Number (Node)	Failsafe Process	Owner	Activity (opening the loop-Trigger)	Process (Closing the loop – conclusion)	Failsafe - additional checks	Reporting/Measure
2/3/5	Invite for routine digital screening, giving appropriate information.	DESP	Produce a report that identifies patients due and overdue for routine digital screening. Issue invitation.	Generate invitation letter and assemble required information to be sent to patient.	Check invitation/ appointment letters match lists and number of envelopes to be posted. Check correct information leaflet is sent with invitation. Have robust system to identify non responders and non-attendees, send second invitation and execute any additional local protocols.	QAS 2,17 Audit Post Office returns. Audit repeat non attendance. Audit any existing register of patients aged under 12 years to ensure they are added to the cohort of eligible patients when they reach the age of 12. Report all detected failures to invite to programme board at appropriate intervals. Where using an external provider the programme board should receive reports on these checks.

(Fig 1)

MAIN AIM

The Main Aims of my project is to interrogate the DESW Optimize database and produce through SQL a Number of server based reports (SSRS) while following Information governance guidelines and the Diabetic Eye Screening Failsafe procedures.

To develop a dashboard for the Diabetic Eye Screening Wales Management level Key Performance Indicators .

To develop a Townsend Index of the whole of Wales through Mapinfo to determine if Diabetes is more prevalent in Deprived areas.

Objectives

•Follow the National Guidelines on Failsafe

•Interrogate /update/maintain the Optimize database.

•Produce Monthly/weekly/daily reports to aid the failsafe officer
•in his tasks

•Maintain a Self Service Reporting platform

•Develop the monthly/daily,/weekly reports into server based reports (SSRS).

•Develop Dashboards

•Follow Information Governance Procedures

•Develop a Townsend Index

Deliverables

SSRS Report – to be created through Optimize Database, Microsoft Visual Studio 2015 and Microsoft SQL Server Report Builder.

SSRS Dashboard – to be created through Microsoft SQL Server Report Builder. Power BI Desktop



(fig 2)

GIS – Townsend Index to be created through Mapinfo Professional 20

Acknowledgments

(fig1)https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/395669/Failsafe_Desp_V1_1_Final_190913.pdf (05/10/2017)

(fig2)<https://blog.infeeny.com/2014/09/08/design-layout-for-executive-dashboard/>(05/10/2017)

WEBSITES

<http://www.eyecare.wales.nhs.uk/drssw>

<http://www.eyecare.wales.nhs.uk/news/45815>