

2012 Webinar Series



Telehealth Technology Assessment Center

Retinal Cameras



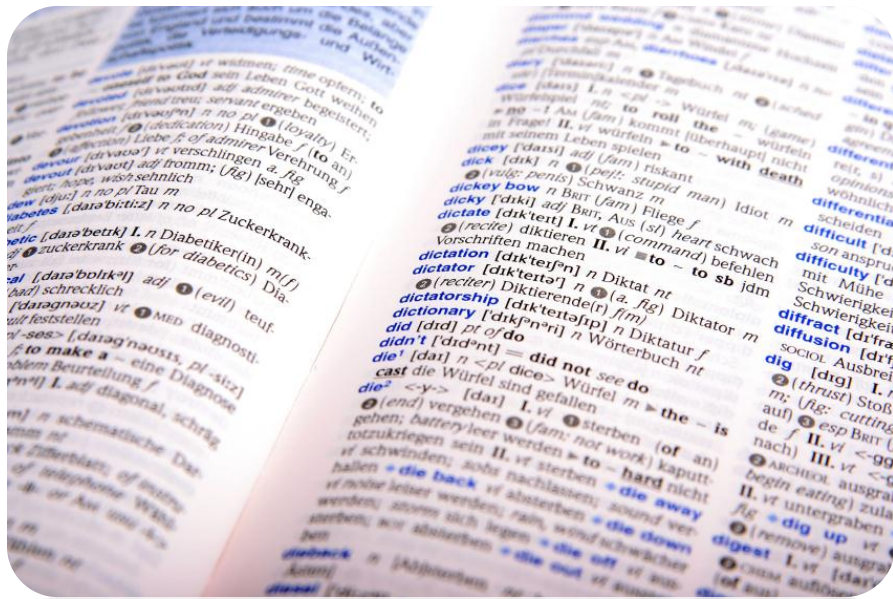
Technology Exploration

Kirt Beck



Jenevra Foisy





Definitions

What is it called...

- ▶ Nonmydriatic
- ▶ Retinal camera
- ▶ Digital Fundus photography



2012 Market Review



Currently Available

- ▶ [Topcon TRC–NW8 and TRC–NW300](#)
- ▶ [AMD–950](#)
- ▶ [KOWA Nonmyd WX3D, Nonmyd–7, Volk Pictor, VX–10, VX–10i, Genesis–D](#)
- ▶ [Canon CR–2, CR–2 Plus, & CX–1 Hybrid](#)
- ▶ [NIDEK AFC–230 and AFC–210](#)
- ▶ [NIDEK F–10 Scanning Laser Ophthalmoscope](#)
- ▶ [Zeiss VISUCAM 200, 500, Pro NM, NM/FA, Cirrus Model 400 & 4000, and VISUPAC/FF 450 plus](#)

Currently Available

- ▶ [ViNM1 Retinal Camera](#)
- ▶ [Rtx1 Adaptive Optics Retinal Camera](#)
- ▶ [Various Foreign Manufacturers](#)
- ▶ [DRS](#)
- ▶ [PanOptic Anterior Segment & Retinal Camera Attachment](#)
- ▶ [Micron Ophthalmic Inc.](#)
- ▶ [Portable Point and Shoot Retina Camera](#)



Technical Components

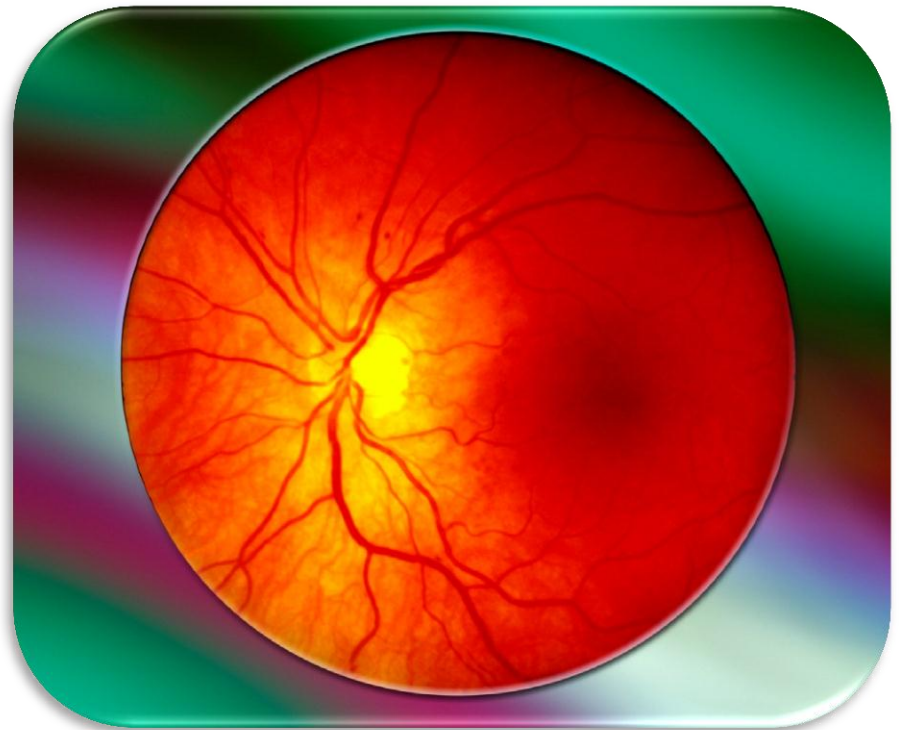
Features

- ▶ Pupil Mode
- ▶ Image related (FOV, Degree, Fields)
- ▶ Internal Fixation Target
- ▶ Alignment
- ▶ Focus
- ▶ Image Review
- ▶ Image Transmission



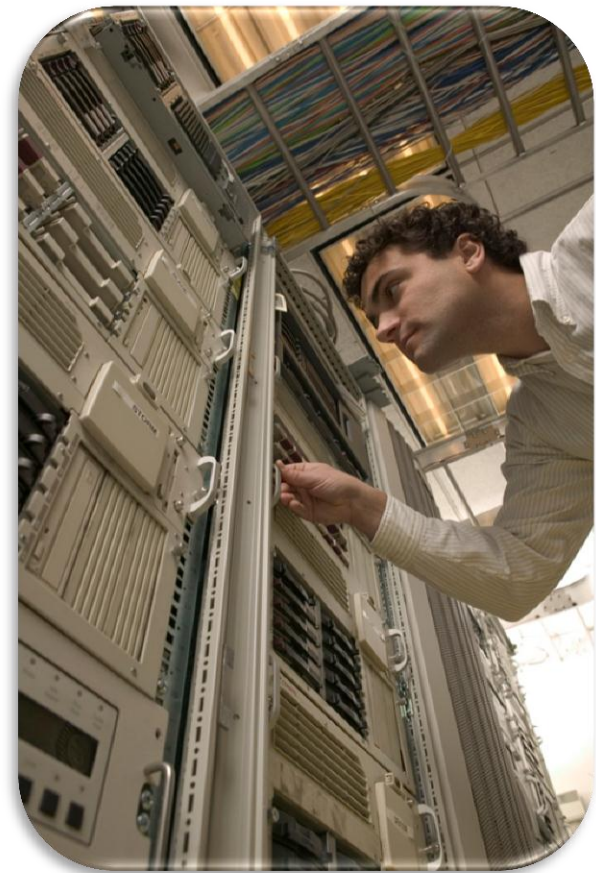
Image Capture

- ▶ Magnification
- ▶ Field of View
- ▶ Fields Captured
- ▶ Degree of Capture



Data Storage

- ▶ Image Review Software
- ▶ Direct to EMR
- ▶ Web Portals



Data Transmission

- ▶ Asynchronous
- ▶ Synchronous



How does this apply...

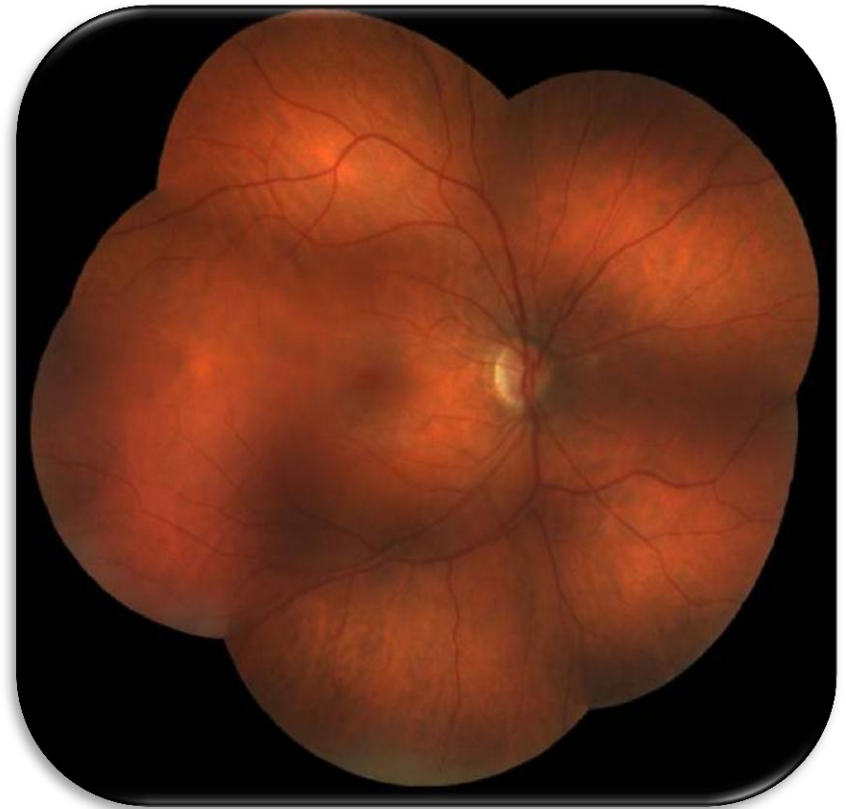


Statistical Impact



Uses in Telehealth...

- ▶ Annual & Periodic Eye Exam
- ▶ Screening Exams
- ▶ Follow Up Exam
- ▶ Portable Applications
- ▶ Special Populations



What all can be detected...

- ▶ Diabetic Retinopathy
- ▶ Cataracts
- ▶ Hard Exudate
- ▶ Chorioretinal Scarring; Atrophy
- ▶ Macular or Midperipheral Drusen
- ▶ Macular pigment changes
- ▶ Macular scarring



What all can be detected...

- ▶ Macular Degeneration
- ▶ Large Optic Cupping
- ▶ Hypertensive Changes
- ▶ Glaucoma
- ▶ Macular Edema
- ▶ Eyelid and Surrounding Tissue Lesions
- ▶ Epiretinal Membranes
- ▶ Emboli



Mobile Health – mhealth

- ▶ New products on the horizon
- ▶ Lowering costs
- ▶ Meet the patient at the point of need
- ▶ Data availability



Security

- ▶ HIPAA
- ▶ Image Encryption
- ▶ Safe data storage practices
- ▶ Encrypted data transmission



Resources & Standards

- ▶ [National Diabetes Information Clearinghouse \(NDIC\)](#)
- ▶ [Vision 2020–The Right to Sight](#)
- ▶ [American Diabetes Association](#)
- ▶ [American Academy of Ophthalmology](#)
- ▶ [Ophthalmic Photographers' Society](#)
- ▶ [Joslin Diabetes Center](#)
- ▶ [2012 TTAC Literature Review](#)



Telehealth Technology Assessment Center

- ▶ [Toolkits](#)
- ▶ [Webinars](#)



Thank You



Kirt J Beck

Director

kjbeck@TelehealthTAC.org

(907) 729-2282



For additional information, please visit our website at www.TelehealthTAC.org or email info@TelehealthTAC.org

Additional resources for telehealth program development can be found at www.telehealthresourcecenters.org

Follow Us

