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Improving Retinopathy Screening for Patients with Diabetes: Optometrists Accepting New Patients On Medicaid +/- Interpreter Services

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FAMILY MEDICINE (R3): JULY-AUGUST 2023
COMMUNITY HEALTH CENTERS OF BURLINGTON
DR. MICHELLE DORWART

The University of Vermont
LENNER COLLEGE OF MEDICINE
CHCB
A microvascular complication of diabetes mellitus (DM)¹

- Non-Proliferative
  - Mild (a)
  - Moderate (b)
- Pre-Proliferative
- Proliferative (c)
- Macular Edema (d)

- Leading cause of preventable blindness among working-age adults²
- Affects 30% of patients with diabetes¹
- Treatment Options³:
  - Anti-VEGF injections
  - Steroid injections
Adequate screening can reduce the incidence of blindness that results from retinopathy by 30-50%²

- Screening Methods: Dilated Fundus Exam & Retinal photography⁴

Healthy People 2030: “Increase the proportion of adults with diabetes who have a yearly eye exam”⁵

- Goal: 70.3%
- 2020: 58.3%
- Status: Getting worse

VT State Diabetes Program⁶:

- 58% of adults with diabetes had annual dilated eye exam
  - Below target of 60%

Diabetes⁷:

- “The majority of Medicaid patients with diabetes in our study did not receive annual eye exams between 2010-2016.”
  - 23-36% per year.

- Improve diabetic retinopathy screening for patients on Medicaid via medical practice transformation.
DIABETIC RETINOPATHY: PUBLIC HEALTH COST

National Burden

- 9.6 million people in US with diabetic retinopathy, as of 2021\(^1\)
  - 26.43% of people with diabetes
    - 5.06% of them have *vision threatening* disease
  - Prevalence expected to increase 3-fold by 2050
- Diabetic retinopathy spending by Medicare Part B:
  - $753 million, as of 2018\(^1\)
  - $781 / person / year\(^8\)
- Total direct medical cost of diabetic retinopathy in 2004 = $493 million\(^9\)

Host Community Considerations

- Higher prevalence in Black individuals than White individuals\(^1\)
  - Black: 34.39%
  - White: 24.40%
- Diabetes in Vermont\(^10\)
  - 7.6% of adult population
  - Total cost of diabetes in VT = $520 million / year
    - Total direct medical expenses in 2017 = $362 million
COMMUNITY PERSPECTIVE

Dr. Heather Stein, Chief Medical Director of CHCB

- Estimates <10% of patients with diabetes are accessing retinopathy screening
- When sorted by language (English, French, Vietnamese, Nepalese & Somali), diabetes control has improved for every subgroup except Somali, which has increased to 47% as of June (see graph below)
- “Because 40% of our visits at some of our locations are non-English speaking, most from outside the US, navigating the local market has added challenge, and these offices don’t accept referrals in a standard way. For our busy clinicians, determining how to direct patients to access eye screening in a busy visit is challenging, especially as we are not always versed in what offices are open, accepting new patients, or bill insurance”
- “It will be incredibly useful to have a ready list with addresses and phone numbers to give to all our staff, from the front desk to the physicians. It’s going to be a resource for our referral staff, and I’d love to set up a system where we make a referral for patients and this list gets automatically sent to them.”

Rebecca O’Reilly, VT Dept. of Health Diabetes Program Manager

- “In general, black and brown people in Vermont are younger than the general population and may not yet be experiencing diabetes at the same rate as their white counterparts because they are younger. If this is true, we’ll expect to see the disparity grow with time.”
- “We haven’t made the services as accessible for [black and brown communities] as they need to be, and we haven’t addressed the distrust between harmed communities and the medical system.”
- DOH Diabetes Program is working on state plan for diabetes that will include consideration of things like eye care and may dive into more specific logistic barriers then.
- State-level success in achieving annual eye care is unclear; % dipped below the target rate in 2020.
- “We’ll have another data point from 2022 available this winter. If the value stays below target, it may indicate a trend that we need to explore.”

[Graph showing Diabetes Poor Control Language by month and language]
INTERVENTION & METHODOLOGY

- List of local optometry offices that…
  - Are accepting new patients
  - Accept Medicaid
  - Perform diabetic retinopathy screening
  - Have interpreter services

- Electronically distributed to CHCB practice managers & providers on 8/7/23

  - In Process – being printed for physical distribution.
  - Hung in CHCB-Riverside exam rooms
  - Mailed to patients with “optometry” referral
  - Printouts in CHCB-Riverside exam rooms to give to patients upon diabetes diagnosis and at f/u care (if optometry care is not established already)
QUALITATIVE:

- Pamphlet already utilized for optometry referral by several CHCB providers
  - Given directly to patient with diabetes at Safe Harbor clinic who needed retinopathy screening
  - Utilized for optometry referral by Dr. Dorwart
  - Hung above workstation of Ben Baker, PA for continued reference
- Several CHCB providers shared consistent feedback that handout will be incredibly useful for them when counseling patients and when patients ask where to go for eye care, and that it saved them/their staff time in trying to make referrals or contact offices to accept their patients

QUANTITATIVE:

- Not collected due to recency of distribution.
- Possible quantitative measures identified on next slide.
MOVING FORWARD

Evaluating Efficacy

- Poll physicians to assess how many are counseling about retinopathy screening with the list of locations
- Poll physicians to assess if the overall rate of retinopathy screening counseling has improved since the handout
- Record the number of diabetic patients that have achieved diabetic retinopathy screening
  - Compare rate before and after list was introduced
  - Stratify for New American patients that speak Somali

Limitations

- List may become outdated as the landscape of local optometry care changes
- Does not address other social barriers to achieving DR screening: transportation to optometry, childcare, etc.
- While all offices on list may be accepting new patients, wait for an appointment may still be variable and for some, lengthy
- Does not address continuity of optometry care
FUTURE INTERVENTIONS

- Obtain a retinal photographer at the Community Health Centers and perform in house retinal scanning as appropriate for pathology

- **Advantages of retinal photography**:
  - Retinal photography has allowed for screening without dilated eye exam and facilitated teleophthalmology via interpretation by remote providers
  - Retinal photography does not require dilation
  - Higher sensitivity, specificity and inter-exam agreement than ophthalmoscopy
  - Can be obtained by varying levels of medical training

- **Barriers**: *per Dr. Heather Stein*
  - Cost
  - Administrative logistics
    - Which clinic it will be at
    - Determining and training which staff will use it
    - Billing through NextGen

Image credit: https://serfinitymedical.com/products/welch-alyx-retinavue-700-image-diabetic-retinopathy-screening-rv700-b variant=33056833339467&gclid=Cj0KCQjwib2mBhDWARIsAPZUn_mMgdyTmtRhK8FWzti07PXZT6LY6l36moDJ1Qa5tEK1fW1FQJ6J_d4aIg==
REFERENCES