

# TADDS

Tool for the assessment of diabetic retinopathy  
and diabetes management systems



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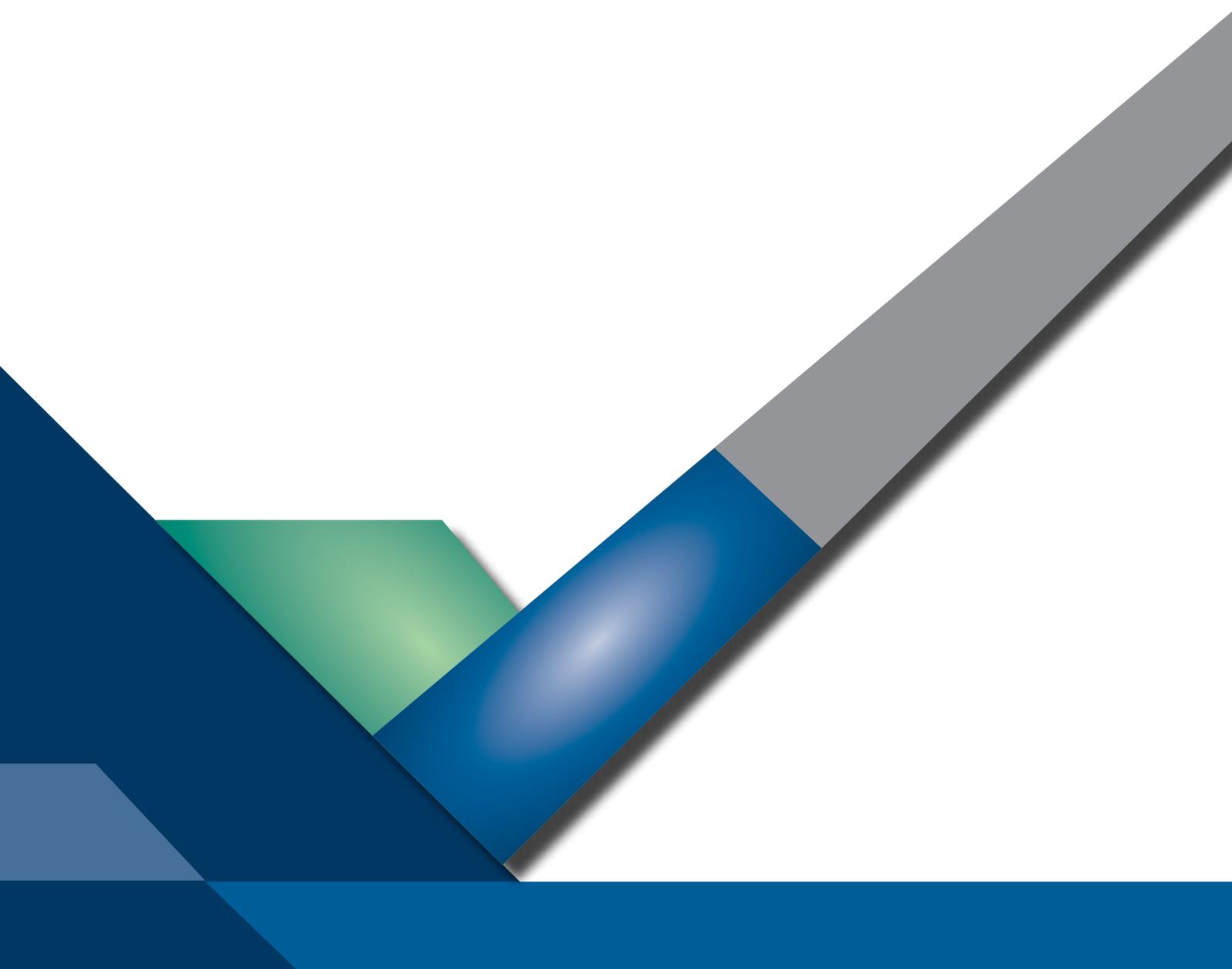
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# FACTS ON DIABETES AND DIABETIC RETINOPATHY

**Diabetes (DM)** today constitutes one of the emerging threats to public health all over the world:

- 455 million people worldwide have diabetes (2014 estimates).
- In 2012, an estimated 3.8 million people died from the consequences of high fasting blood sugar.
- More than 80% of diabetes deaths occur in low- and middle-income countries.
- WHO projects that diabetes will be the seventh leading cause of death in 2030.

Simple lifestyle measures (healthy body weight; physical activity; healthy diet) have been shown to be effective in preventing or delaying the onset of type 2 diabetes.

Early diagnosis can be accomplished through relatively inexpensive blood testing.

Treatment of diabetes involves lowering blood glucose and the levels of other known risk factors that damage blood vessels.

**Diabetic retinopathy (DR)** is the fifth leading cause of visual impairment and the fourth leading cause of blindness in the world:

- 285 million people worldwide are visually impaired.
- In 2010, an estimated 39.3 million people were blind.
- More than 80% of people with visual impairments live in low-income settings.
- More than 80% of people blind are >50 years old.
- Diabetic retinopathy is the cause of visual impairment for 4.2 million people.

The onset of diabetic retinopathy is the result of long-lasting diabetes; the condition is worse if diabetes is poorly controlled. Prevention of visual impairment from diabetic retinopathy is achieved principally through control of diabetes, early detection of retinal changes, and timely treatment of sight-threatening lesions of the retina once the damage from diabetes is established. Anti-VEGF (vascular endothelial growth factor) agents can reduce the progression of the disease and preserve visual function.

The most critical role of health systems in managing diabetes and preventing irreversible blindness from the disease is cooperation between those responsible for diabetes management and those concerned with diabetic retinopathy. While this may seem obvious, it is not a consistent practice in the health systems of low-income countries, and indeed is often also lacking in middle- and high-income countries.

## PURPOSE OF THE DOCUMENT

In order to assess both management of diabetes and diabetic retinopathy in countries and to estimate the level of cooperation and synergy between these two branches of health care, WHO has designed this assessment tool. The tool will make it possible to carry out situation analysis, define service provision levels, and identify the gaps to be addressed in ensuring universal access to diabetes care and to effective prevention and treatment of diabetic retinopathy.

# CONTENT OF THE TADDS (TOOL FOR THE ASSESSMENT OF DIABETIC RETINOPATHY AND DIABETES MANAGEMENT SYSTEMS)

The WHO Health Systems Framework guided the development of the survey items, which are organized into the following themes<sup>1</sup>:

- 1. Service delivery:** Estimates of needs from available data, priorities, policies and health care programmes for diabetes and diabetic retinopathy; how they are integrated into the public health system and each other (networks); presence and nature of referral pathways between diabetes care and eye care; locations of services; provision of care in public and private services.
- 2. Health workforce:** Cadres, numbers, distribution and training of staff involved in diabetes and eye care services.
- 3. Health information management systems:** Key performance indicators; what information is recorded for the individual patient with diabetes; data collation and communication; patient follow-up systems. Where possible, medical records should be used to assess compliance with regular monitoring of both diabetes and eye examinations.
- 4. Medical products and technologies:** Availability, accessibility and functionality of equipment for diagnosis, management and monitoring by health care providers.
- 5. Health financing:** Government expenditure, health insurance schemes, social

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