INSTITUTUL ASPEN ROMÂNIA | POLICY PROGRAMS

HEALTHCARE & QUALITY OF LIFE PROGRAM

SARS-COV-2 pandemic's effects on the healthcare workforce and uninterrupted and universal access to healthcare services

Diabetes and COVID -19 in ROMANIA

Ass.Prof Anca Pantea Stoian

"Carol Davila" University of Medicine

Diabetes, Nutrition and Metabolic Diseases,

"INDNBM "Prof.N.C.Paulescu"

Bucharest, Romania

DISCLOSURE

Relationships with commercial interests:

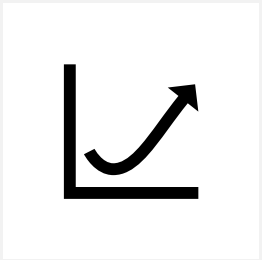
Advisory boards: Astra Zeneca,Merck,Medtronic,Novo Nordisk, Roche Diabetes,Sanofi.

Clinical trials: CREDANCE

Speaker / consultant fees: Astra Zeneca,Coca-Cola,Novo Nordisk,Medtronic,Merck, Eli Lilly,Sanofi.

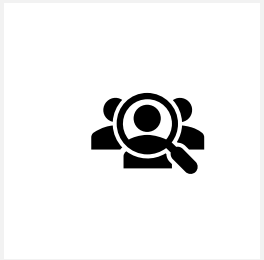
NCDs

NCDs disproportionately affect people in low- and middle-income countries where more than three quarters of global NCD deaths – 32million – occur.



THE ISSUE

Noncommunicable diseases (NCDs) kill 41 million people each year, equivalent to 71% of all deaths globally.



THE IMPACT

Each year, 15 million people die from a NCD between the ages of 30 and 69 years; over 85% of these "premature" deaths occur in low- and middle-income countries.

THE SITUATION

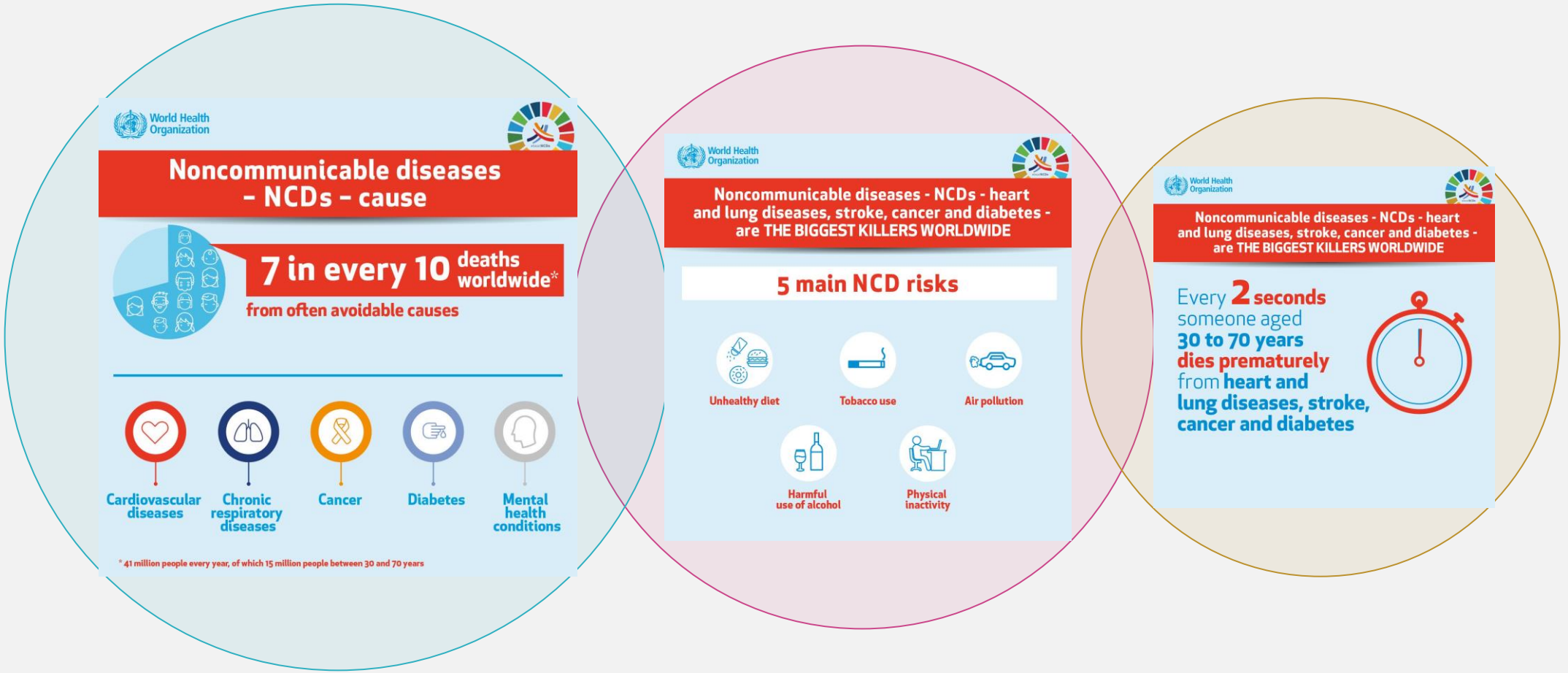
Cardiovascular diseases account for most NCD deaths, or 17.9 million people annually, followed by cancers (9.0 million), respiratory diseases (3.9million), and diabetes (1.6 million).

RISK FACTORS

Tobacco use, physical inactivity, the harmful use of alcohol and unhealthy diets all increase the risk of dying from a NCD.

THE KEY

Detection, screening and treatment of NCDs, as well as palliative care, are key components of the response to NCDs.


World Health Organization
Noncommunicable diseases – NCDs – cause
7 in every 10 deaths worldwide*
from often avoidable causes
Cardiovascular diseases
Chronic respiratory diseases
Cancer
Diabetes
Mental health conditions
* 41 million people every year, of which 15 million people between 30 and 70 years
World Health Organization
Noncommunicable diseases - NCDs - heart and lung diseases, stroke, cancer and diabetes - are THE BIGGEST KILLERS WORLDWIDE
5 main NCD risks
Unhealthy diet
Tobacco use
Air pollution
Harmful use of alcohol
Physical inactivity
World Health Organization
Noncommunicable diseases - NCDs - heart and lung diseases, stroke, cancer and diabetes - are THE BIGGEST KILLERS WORLDWIDE
Every 2 seconds someone aged 30 to 70 years dies prematurely from heart and lung diseases, stroke, cancer and diabetes

Risk factors

Modifiable behavioural risk factors

•Tobacco accounts for over 7.2 million deaths every year (including from the effects of exposure to second-hand smoke), and is projected to increase markedly over the coming years. *(1)*
•4.1 million annual deaths have been attributed to excess salt/sodium intake. *(1)*
•More than half of the 3.3 million annual deaths attributable to alcohol use are from NCDs, including cancer. *(2)*
•1.6 million deaths annually can be attributed to insufficient physical activity. *(1)*

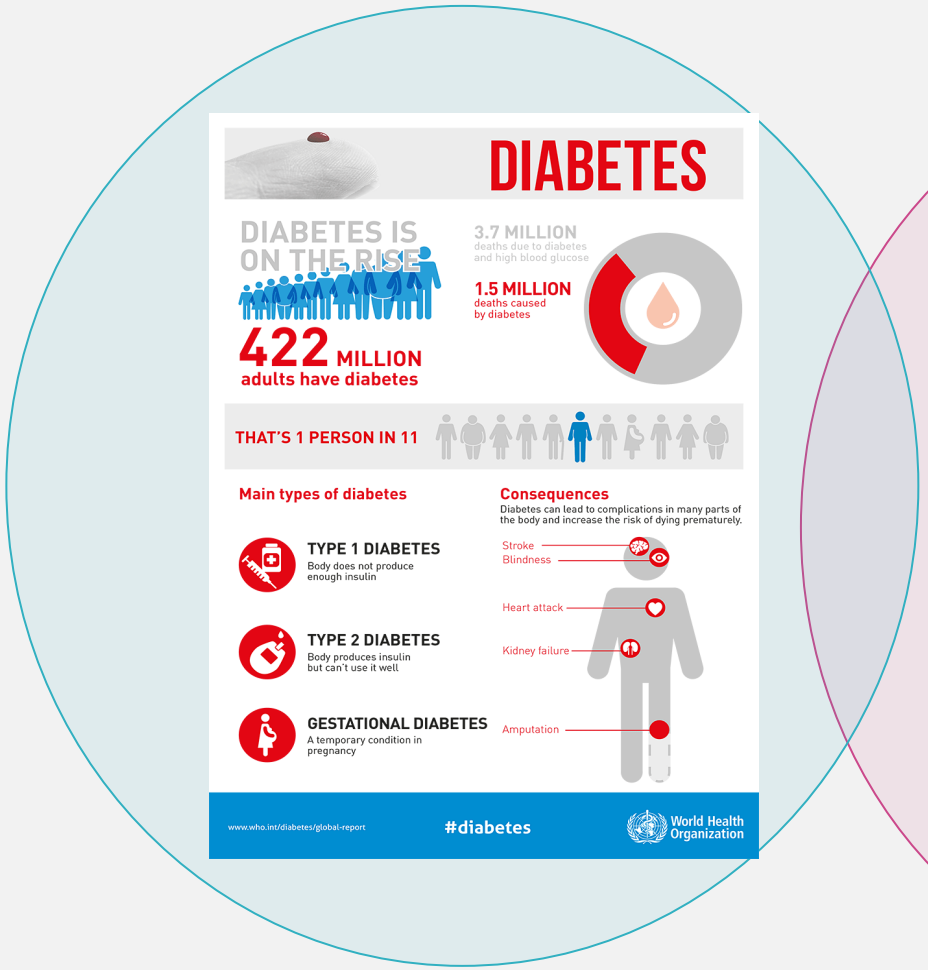
Metabolic risk factors

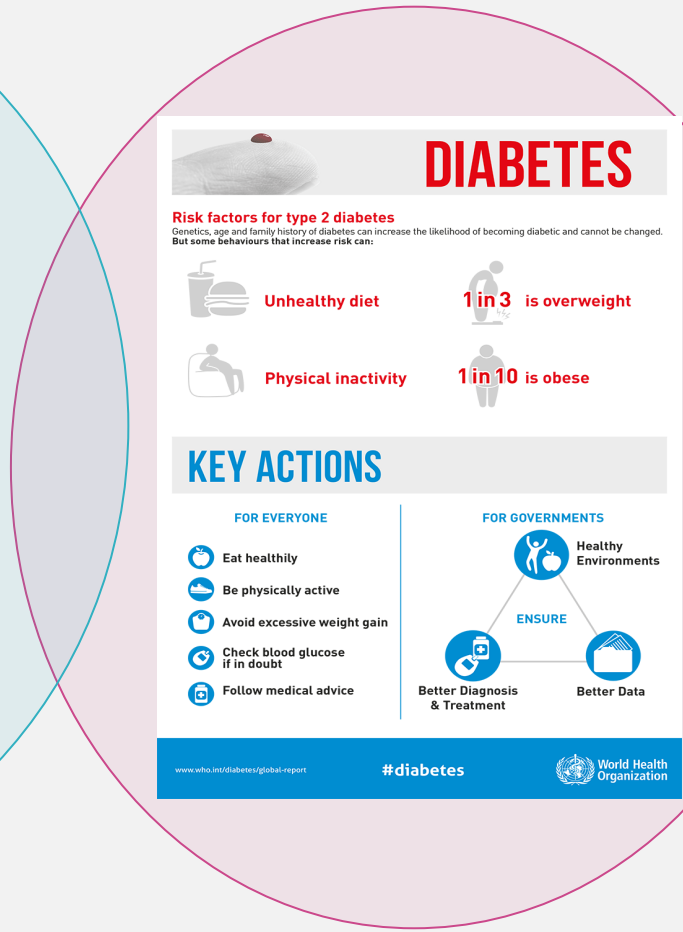
•raised blood pressure
•overweight/obesity
•hyperglycemia (high blood glucose levels) and
•hyperlipidemia (high levels of fat in the blood).
In terms of attributable deaths, the leading metabolic risk factor globally is elevated blood pressure (to which 19% of global deaths are attributed), *(1)* followed by overweight and obesity and raised blood glucose.

Prevention and control of NCDs

Management of NCDs includes detecting, screening and treating these diseases, and providing access to palliative care for people in need. High impact essential NCD interventions can be delivered through a primary health care approach to strengthen early detection and timely treatment. (3,4)

(1) Horton, R. Offline: time to radically rethink non-communicable diseases. *Lancet* **393**, 1922 (2019).
(2) Nugent, R. & Fottrell, E. Non-communicable diseases and climate change: linked global emergencies. *Lancet* **394**, 622–623 (2019).
(3) Ghebreyesus, T. A. Acting on NCDs: counting the cost. *Lancet* **391**, 1973–1974 (2018).
(4) Miranda, J.J., Barrientos-Gutiérrez, T., Corvalan, C. *et al.* Understanding the rise of cardiometabolic diseases in low- and middle-income countries. *Nat Med* **25,** 1667–1679 (2019). https://doi.org/10.1038/s41591-019-0644-7


DIABETES
DIABETES IS ON THE RISE
422 MILLION
adults have diabetes
3.7 MILLION
deaths due to diabetes and high blood glucose
1.5 MILLION
deaths caused by diabetes
THAT'S 1 PERSON IN 11
Main types of diabetes
TYPE 1 DIABETES
Body does not produce enough insulin
TYPE 2 DIABETES
Body produces insulin but can't use it well
GESTATIONAL DIABETES
A temporary condition in pregnancy
Consequences
Diabetes can lead to complications in many parts of the body and increase the risk of dying prematurely.
Stroke
Blindness
Heart attack
Kidney failure
Amputation
www.who.int/diabetes/global-report
#diabetes
World Health Organization


DIABETES
Risk factors for type 2 diabetes
Genetics, age and family history of diabetes can increase the likelihood of becoming diabetic and cannot be changed.
But some behaviours that increase risk can:
Unhealthy diet
Physical inactivity
1 in 3 is overweight
1 in 10 is obese
KEY ACTIONS
FOR EVERYONE
Eat healthily
Be physically active
Avoid excessive weight gain
Check blood glucose if in doubt
Follow medical advice
FOR GOVERNMENTS
Healthy Environments
ENSURE
Better Diagnosis & Treatment
Better Data
www.who.int/diabetes/global-report
#diabetes
World Health Organization


NCD BEST BUYS
EVIDENCE-BASED COST-EFFECTIVE PUBLIC HEALTH INTERVENTIONS TO PREVENT AND CONTROL NCDs
DIABETES
Offer glycemic control for people with diabetes.
Provide preventive foot care for people with diabetes.
Screen diabetes patients for retinopathy and provide laser photocoagulation to prevent blindness.
TOGETHER LET'S BEAT NCDs
Pan American Health Organization
World Health Organization

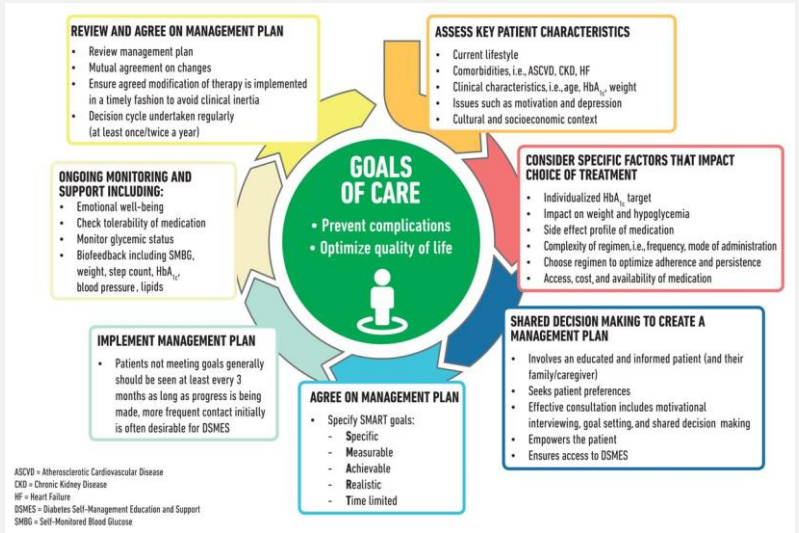
Routine screening and systemic health checks for diabetes

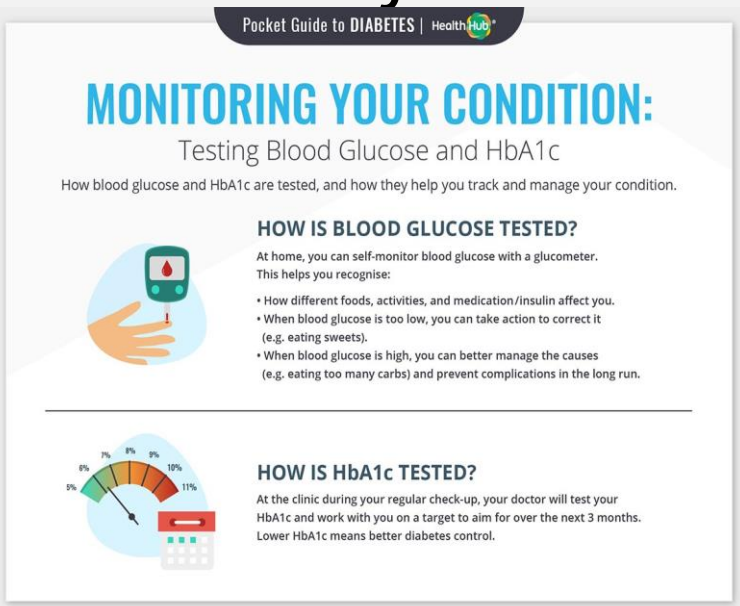
Convenience

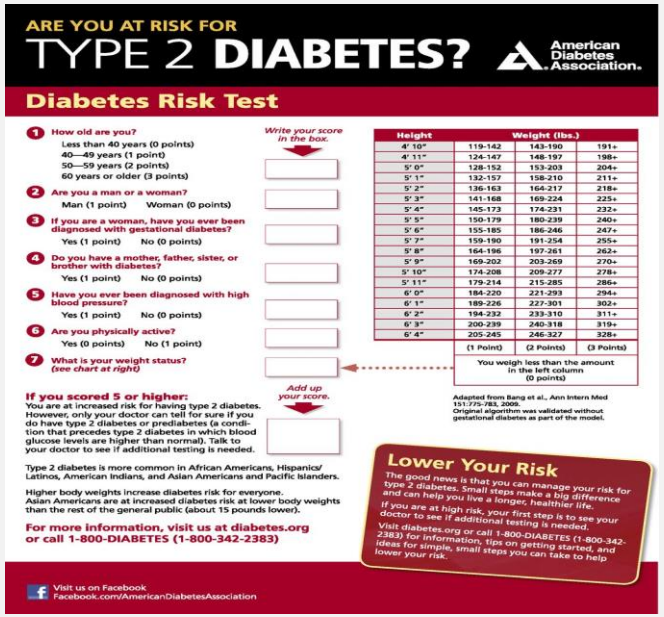
Expensive

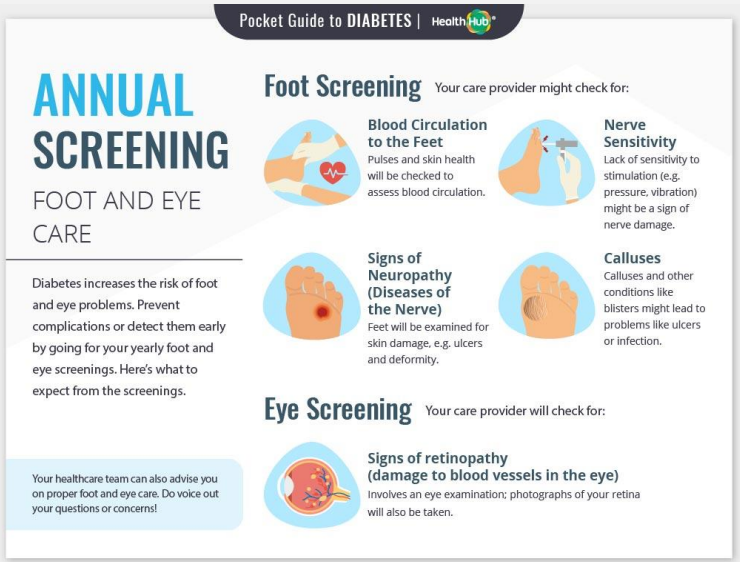
Affordable

Inconvenient

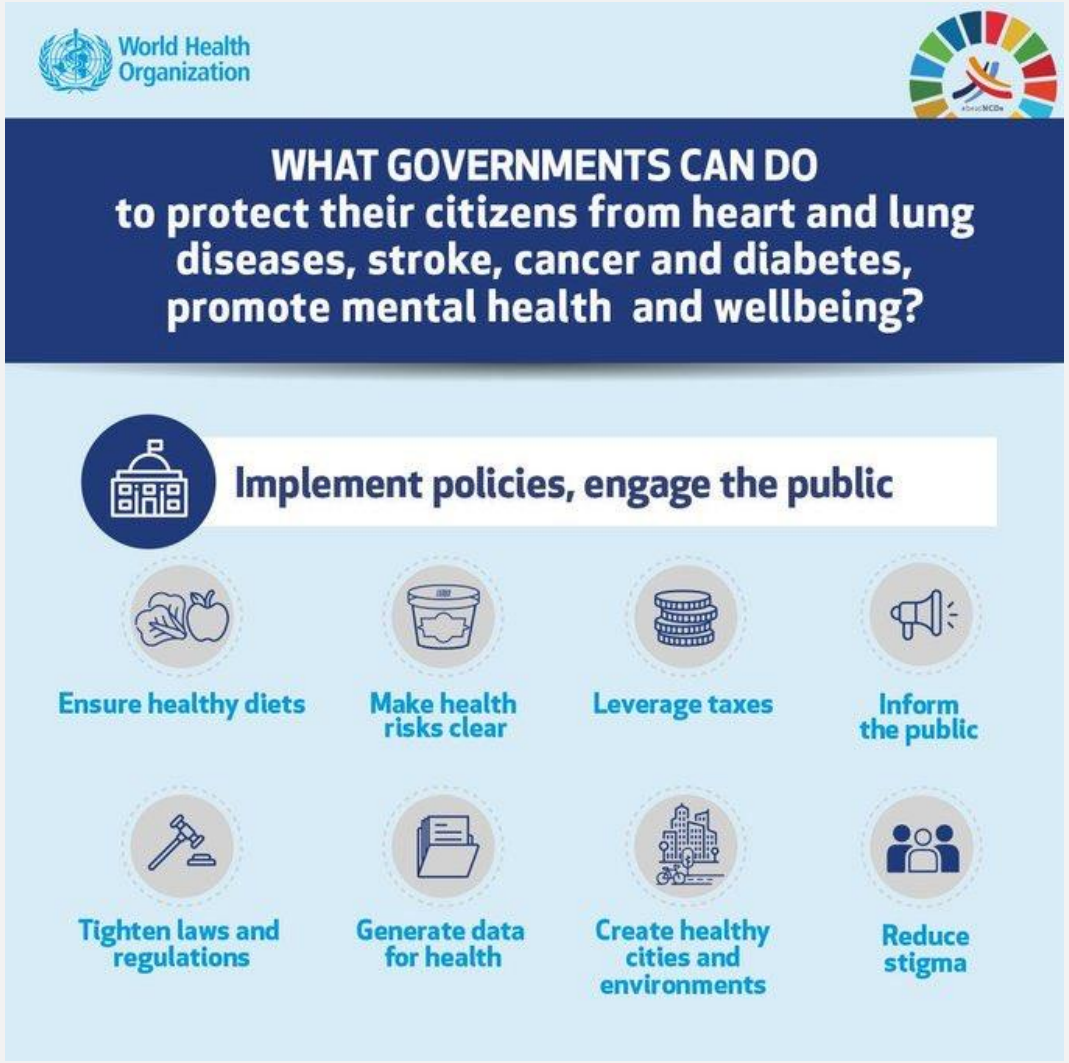








THE SOLUTION



METABOLIC SYNDROME AND RELATED DISORDERS
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COMMENTARY

Diabetes and the COVID-19 Pandemic: How Insights from Recent Experience Might Guide Future Management

Anca Pantea Stoian, MD, PhD,[1] Yajnavalka Banerjee, MD, PhD,[2] Ali A. Rizvi, MD, PhD,[3] and Manfredi Rizzo, MD, PhD[4,5]

DIABETES RESEARCH AND CLINICAL PRACTICE 163 (2020) 108151

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Diabetes Research and Clinical Practice
journal homepage: www.elsevier.com/locate/diabres

Commentary

COVID-19 and diabetes management: What should be considered?

Antonio Ceriello [a,*], Anca Pantea Stoian [b], Manfredi Rizzo [c,d]

[a] IRCCS MultiMedica, Milan, Italy
[b] Diabetes, Nutrition and Metabolic Diseases Department, "Carol Davila" University of Medicine, Bucharest, Romania
[c] Division of Endocrinology, Diabetes and Metabolism, Department of Medicine, University of South Carolina, Columbia, SC, USA
[d] Department of Health Promotion, Mother and Child Care, Internal Medicine and Medical Specialties, University of Palermo, Italy

Review

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1-3
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Incretin-Based Therapies Role in COVID-19 Era: Evolving Insights

Anca Pantea Stoian, MD[1], Nikolaos Papanas, MD[2], Martin Prazny, MD[3], Ali A. Rizvi, MD[4,5], and Manfredi Rizzo, MD[5,6]

Death by SARS-CoV 2 - a Romanian COVID-19 multi-centre comorbidity study

Anca Pantea Stoian
University of Medicine and Pharmacy "Carol Davila", Bucharest https://orcid.org/0000-0003-0555-526X

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DOI: 10.1002/dmrr.3379

COMMENTARY

WILEY

Hydroxychloroquine, COVID-19 and diabetes. Why it is a different story

Anca Pantea Stoian[1] | Doina Catrinoiu[2] | Manfredi Rizzo[3,4] | Antonio Ceriello[5]

FARMACIA, 2020, Vol. 68, 3
https://doi.org/10.31925/farmacia.2020.3.1

REVIEW

DIABETES AND RENIN-ANGIOTENSIN-ALDOSTERONE SYSTEM: IMPLICATIONS FOR COVID-19 PATIENTS WITH DIABETES TREATMENT MANAGEMENT

DOINA CATRINOIU[1#], ANTONIO CERIELLO[2#], MANFREDI RIZZO[3,4], CRISTIAN SERAFINCEANU[5], NICOLA MONTANO[6], ANCA PANTEA STOIAN[5*], DENISA IOANA UDEANU[7], VIOREL JINGA[8], GABRIELA IORGULESCU[9#], ION-BOGDAN DUMITRESCU[7]

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PERSPECTIVE
THERAPY AREA: OTHER

THE INTERNATIONAL JOURNAL OF CLINICAL PRACTICE WILEY

Gender differences in the battle against COVID-19: Impact of genetics, comorbidities, inflammation and lifestyle on differences in outcomes

MINISTERUL SĂNĂTĂȚII
COMISIA DE DIABET ZAHARAT, NUTRIȚIE ȘI BOLI METABOLICE
Nr.190/07.04.2020

Către

MINISTERUL SĂNĂTĂȚII

Direcția Generală de Asistență Medicală și Sănătate Publică

D-nei Director General Dr.Amalia Șerban

Recomandările privind

MANAGEMENTUL HIPERGLICEMIEI ÎN CONDIȚII DE SPITALIZARE PENTRU INFECȚIA CU NOUL CORONAVIRUS (SARS-COV-2)

Comitet de elaborare
Prof. Dr. Romulus Timar – președintele Societății Române de Diabet, Nutriție și Boli Metabolice
Prof. Dr. Gabriela Roman – președintele Federației Române de Diabet, Nutriție și Boli Metabolice
Conf. Dr. Cornelia Bala, Conf. Dr. Anca Pantea Stoian – Comisia de Diabet, Nutriție și Boli Metabolice a Ministerului Sănătății

Avizat
Prof. Dr. Petru Aurel Babeș – președintele Comisiei de Diabet, Nutriție și Boli Metabolice a Ministerului Sănătății

1. INTRODUCERE

COVID-19 este o nouă entitate patologică ce a fost declarată boală pandemică de către Organizația Mondială a Sănătății în 11 martie 2020. Conform informațiilor disponibile până la această dată și a experienți clinice, categoriile de persoane la risc crescut pentru forme severe de boală sunt:

- persoanele cu vârsta ≥65 de ani
- persoanele care locuiesc în condiții de instituționalizare pe termen lung
- persoane care prezintă:
  - boli pulmonare cronice sau forme moderate/severe de astm bronșic
  - boli cardiovasculare complicate
  - persoane imunocompromise, inclusiv cele care urmează tratamente antineoplazice
  - persoane care, indiferent de vârstă, prezintă **obezitate severă** (indice de masă corporală IMC≥40 kg/m) sau care au anumite patologii, în special dacă acestea nu sunt controlate, cum este **diabetul zaharat**, insuficiența renală sau bolile hepatice
- gravidele necesită monitorizare atentă, cu toate că datele actuale nu confirmă un risc crescut

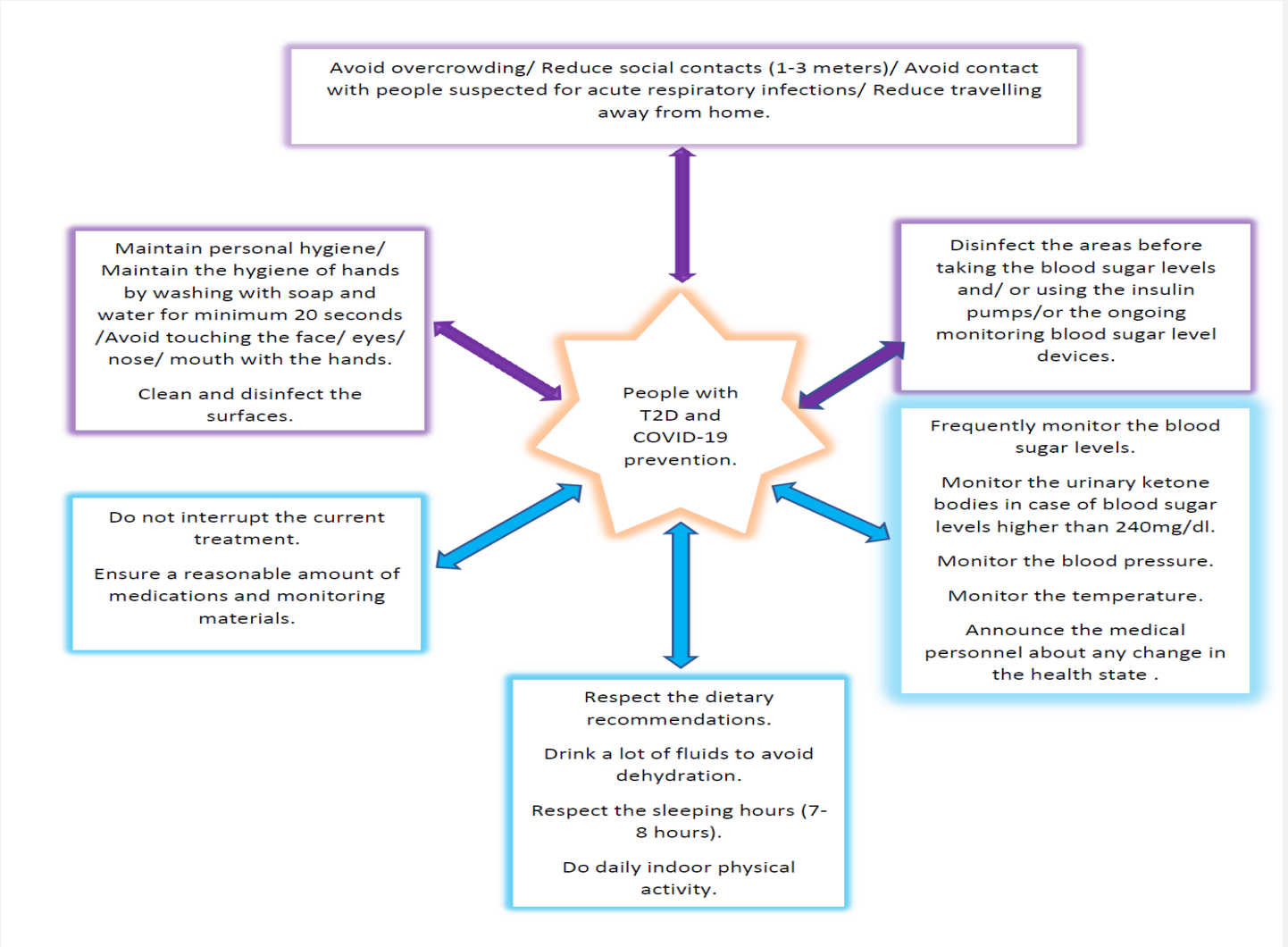
2. Riscul COVID-19 la pacienții cu diabet zaharat

Un raport publicat la data de 3 aprilie 2020 de Centers for Disease Control and Prevention (CDC) a examinat comorbiditățile prezente la un grup de 7.162 persoane diagnosticate cu COVID-19 în Statele Unite în perioada 12 februarie-28 martie 2020. Pe primul loc ca și frecvență în cohorta generală s-a situat **diabetul zaharat (10,9%)**, urmat de bolile pulmonare cronice (9,2%) și bolile cardiovasculare (9%). Diabetul zaharat este cea mai frecventă comorbiditate la pacienții care au necesitat spitalizare în secții non-TI (24%) și în secții de TI (32%).
Datele raportate din China arată că diabetul zaharat este prezent la 16,2% din pacienții cu forme severe de COVID-19 și la 26,9% dintre cei care au necesitat internare pe secții de TI, ventilare mecanică sau care au decedat. În Italia, s-a raportat o frecvență de 33,9% a diabetului zaharat în rândul pacienților decedați prin COVID-19.
În Romania, până la data de 2 aprilie 2018, au fost înregistrate 114 decese din care 22,8% au fost pacienți care au avut diabet zaharat.
Aceste date trebuie interpretate în contextul prevalenței diabetului zaharat la nivel național (11,6% conform studiului PREDATORR), dar concură în susținerea faptului că pacienții cu diabet zaharat prezintă un risc crescut pentru formele severe de COVID-19.

Mecanismele prin care diabetul zaharat conferă un risc crescut pentru formele severe de boală sunt dependente, ca și în cazul altor boli infecțioase, de prezența hiperglicemiei persistente, a statusului pro-inflamator si pro-oxidativ marcat. De asemenea, prezența unor complicații cronice asociate diabetului cum sunt bolile cardiovasculare sau boala cronică de rinichi, pot contribui la creșterea riscului.

Nu există în prezent recomandări specifice pentru managementul pacienților cu diabet zaharat în prezența infecției cu COVID-19, dar având în vedere posibilitatea unei evoluții mai severe și

Diabetes Management during COVID -19 Pandemia



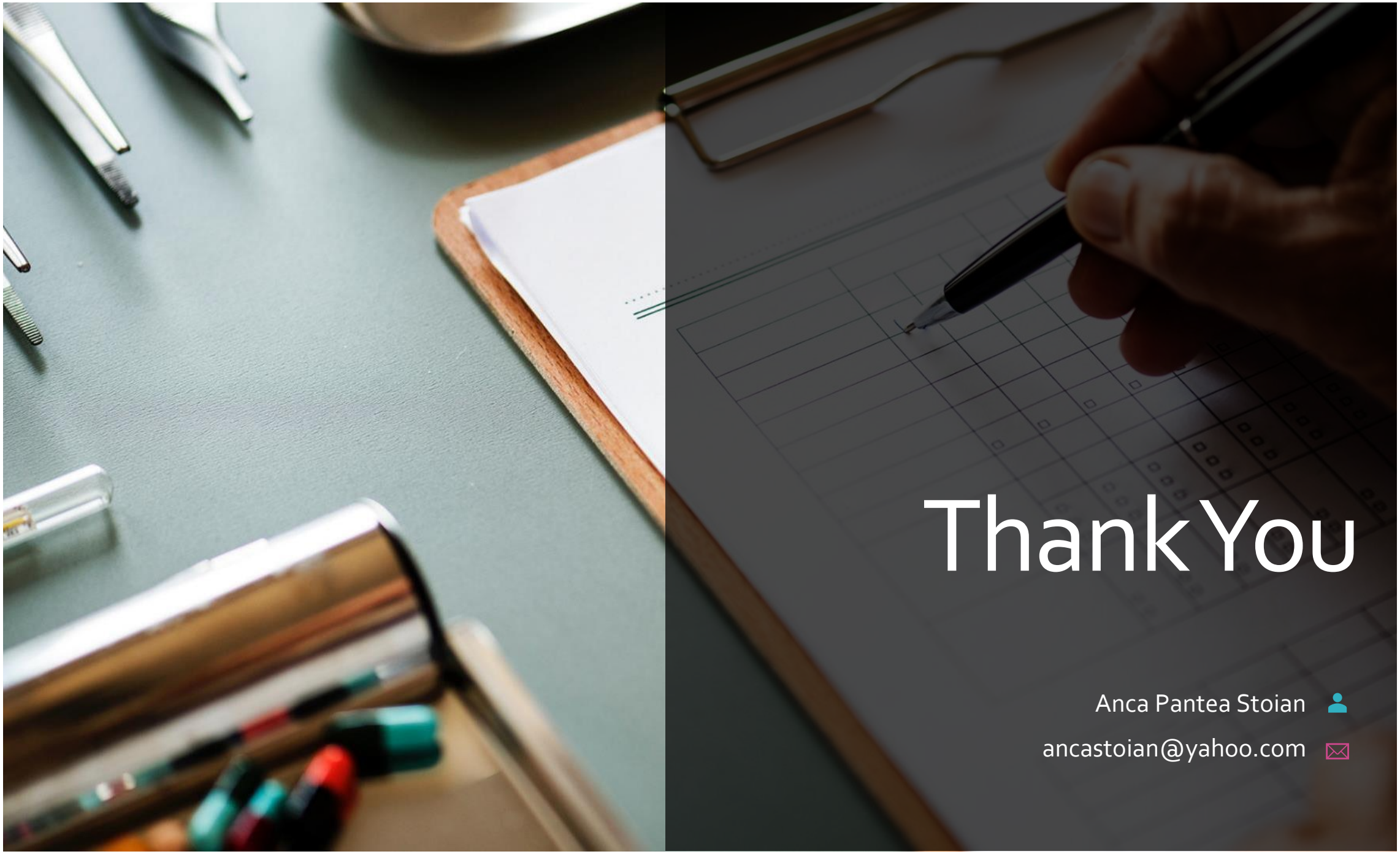
Coronavirus support

Keep calm

Stay connected

Be safe

https://www.ukyouth.org/covid-19/



Thank You

Anca Pantea Stoian
ancastoian@yahoo.com