

SUPPLEMENTARY DATA

List of experts contributing to the survey

Experts are listed in alphabetical order by country.

The (v) indicates individuals who participated in the validation study:

Argentina: Gagliardino Juan José, Litwak Leon, Musso Carla, Sinay Isaac (v). *Australia*: Colagiuri Stephen (v), Cooper Mark (v), Zoungas Sophia (v). *Austria*: Schernthaner Guntram, Toplak Hermann. *Belgium*: Chantalle Mathieu, Van Gaal Luc. *Brazil*: Chacra Antonio, Forti Adriana (v), Goldberg-Eliaschewitz Freddy, Lyra Ruy, Milech Adolpho, Moreira Rodrigo, Pedrosa Hermelinda C, Wajchenberg Bernardo Léo. *Bulgaria*: Malina Petkova. Tsvetalina Tankova (v). *Cameroon*: Mbanya Jean Claude. *Canada*: Amir Hanna, Chiasson, Jean-Louis (v), Gerstein Hertz, Hramiak Irene, Robert Josse, Ross Stuart (v), Ur Ehud (v), Vince Woo. *Chile*: Carmen G. Aylwin, Raffo Carlos (v). *China*: Chan Juliana, Linong Ji. *Columbia*: Aschner Pablo. *Czech Republic*: Martin Fried, Skrha Jan. *Denmark*: Knop Filip, Rossing Peter (v). *Egypt*: Samir Helmy Assad-Khalil. *Estonia*: Anu Ambos (v), Podar Toomas. *Finland*: Tuomilehto Jaakko. *France*: Fabrice Bonnet, Hadjadj Samy (v), Travert Florence (v), Reznick Yves. *Germany*: Eberhard Standl, Gallwitz Baptist, Bretzel Reinhard G. (v), Hanefeld Markolf, Nauck Michael, Schwarz Peter, Stumvoll Michael (v). *Greece*: Katsilambros Nicholas, Raptis Sotirios A., Tsigos Constantine (v). *Hong Kong*: Ma Ronald, Tong Peter. *Hungary*: Gyorgy Jermendy, Gyula Soltesz. *India*: Shaukat Sadikot, Kumar Prasanna (v). *Indonesia*: Soegondo Sidartawan. *Israel*: Baruch Yitzhak, Cohen Ohad, Cohen Josef, Dicker Dror, Eldor Roy, Glaser Ben, Grossman Ehud, Harman-Boehm Ilana, Heymann Anthony, Kalter Ofra, Karasik Avraham, Lahad Amnon, Leibowitz Gil, Levit Shmuel, Liebermann Nicky, Mosenson Ofri, Rapoport Micha (v), Ravid Mordechai, Rubinstein Ardon, Singer Joelle Attal, Shehadeh Naim, Wainstein Julio, Weiss Ram, Yereshalmy Yair. *Italy*: Agostino Consoli (v), Avogaro Angelo (v), Bolli Geremia.B. (v), Bonora Enzo, Buzzetti Raffaella (v), Del Prato Stefano, Fanelli Carmine, Ferrannini Ele, Francesca Porcellati, Giaccari Andrea (v), Giorgino Francesco, Lozzo Patricia (v), Lucidi Paola, Massi-Benedetti Massimo, Mannucci Edoardo (v), Pozzilli Paolo, Perseghin Gianluca, Pietrobelli Angelo, Sesti Giogrio(v). *Japan*: Imai Enyu. *Korea*: Yoon Kun-Ho, Park Kyong Soo (v). *Latvia*: Ajar Lejnicks. *Lithuania*: Jakuboniene Neli (v). *Malasya*: Mafauzy Mohamed (v). *Mexico*: Lavallo-González Fernando Javier, Paloma Almeda-Valdes (v), Roberto Medina-Santillan (v). *Netherlands*: De Vries J. Hans, Kooy Adriaan (v), Tack Cornelis J. *Panama*: Abouganem Daniel. *Phillipines*: Rosa Allyn Sy (v). *Poland*: Krzysztof Strojek, Sieradzki Jacek, Taton Jan, Tykarski Andrzej (v). *Portugal*: Jose Luis Medina. *Romania*: Cernea Simona (v), Nicolae Hancu, Veresiu Ioan Andrei (v). *Russia*: Ametov Alexander, Gurieva Irina V, Misnikova Inna (v), Shestakova Marina. *Serbia*: Djordjevic Predrag, Micic Dragan, Nebojsa Lalic. *Singapore*: Lee Warren, Yung Seng Lee. *Slovakia*: Ivan Tkáč (v), Boris Krahulec (v). *Slovenia*: Matjaž Vrtovec (v). *South Africa*: Bonnici François, Distiller Larry (v). *Spain*: Aguilar-Diosdado Manuel, Conget Ignacio, Navarro-González Juan.F. *Sweden*: Alvarsson Michael (v), Lyssenko Valeriya, Nilsson Peter. *Taiwan*: Chuang LeeMing, Huang Chih-Kun, Sheu Wayne. *Thailand*: Chaicharn Deerochanawong (v). *Turkey*: Hasan Ilkova, Ilhan Satman (v), Erbas Tomris, Temel Yilmaz. *UK*: Baily Clifford (v), Antonio Cериello (v), Heller Simon, Home Philip, Kilpatrick Eric S., Taylor Roy, Michael Theodorakis (v), Wilding John. *Uruguay*: Javiel Gerardo (v). *USA*: Bloomgarden Zachary, Buse John, Caprio Sonia (v), Cefalu William T, Davidson Jaime, DeFronzo Ralph A., Fonseca Vivian, Ginsberg Henry, Grajower Martin M. Handelsman Yehuda, Henry Robert, Hirshberg Boaz, Katzeff Harvey, Lebovitz Harold, Leiter Lawrence, Liaw Danny, Marrero David G. (v), Meigs James, Meneghini Luigi, Mestman Jorge, Niecestro Robert, Raskin Philip, Ratner Robert, Ratner Kaufman Francine, Rayfield Elliot, Helena W. Rodbard (v), Rosenstock Julio, Skyler Jay (v), Satish George. *Venezuela*: Elizabeth Gruber de Bustos (v).

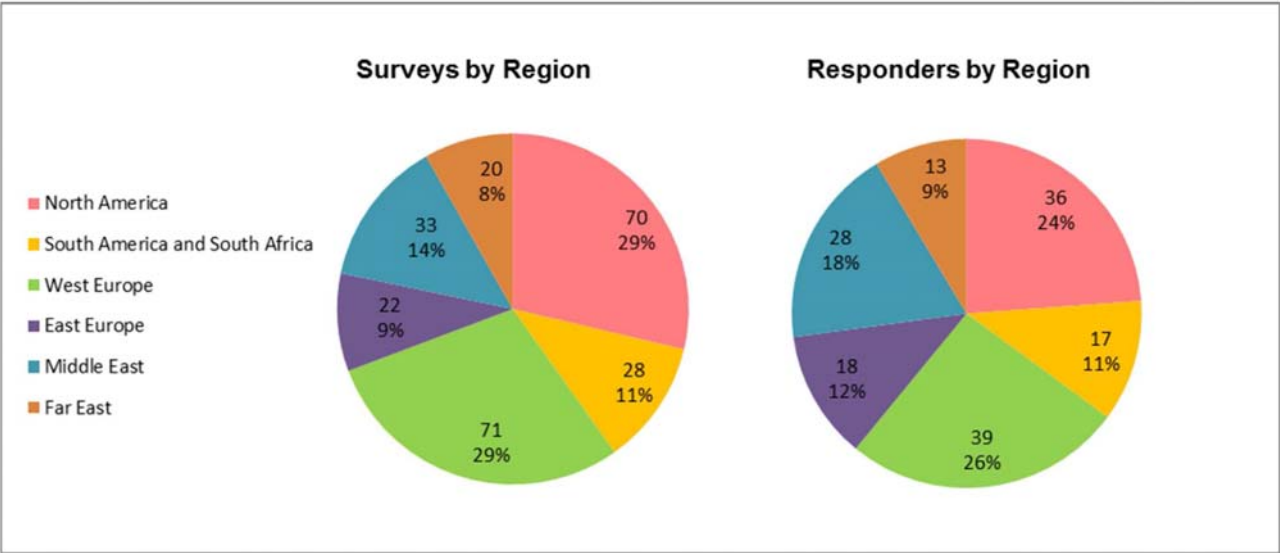
SUPPLEMENTARY DATA

Description of conduction and analysis of the survey

An e-mail inviting the expert to participate in the survey was sent to each expert with a link to the survey site. We estimated, for the survey to be of value, that the sample size was calculated to require a confidence interval of $\pm 0.15\%$ for the 'mean recommended target HbA1c'. To arrive at this number, we assumed nearly all recommended HbA1c targets would be in the range of 6-9%, thus, this range reflects four standard deviations; the single standard deviation being 0.75%. Assuming a normal distribution of results, 100 responders would be sufficient for calculating mean HbA1c $\pm 0.15\%$ at a confidence level of 95%. The response rate for the survey was estimated at 40%, thus we approached 250 key opinion leading diabetologists worldwide. 244 surveys were sent out and 151 results were received, the response rate being 62%.

A second e-mail was sent out several weeks after the initial one requesting response from those who had not yet responded.

Distribution of survey responders according to region



SUPPLEMENTARY DATA

Full description of the cases as appeared in the survey

Case no. 1

A 64 year old computer programmer retired 2 years ago due to medical problems and is currently living off welfare. He is divorced and has 2 children.

He has had diabetes for over 20 years.

His current treatment includes metformin, exenatide and glargine but he occasionally forgets his medications, and claims he does not see much point in taking them.

5 years ago he underwent carotid endarterectomy after a TIA.

Two years ago he had a severe MI complicated with cardiogenic shock and an emergency CABG. Since then he suffers occasional rest dyspnea and barely leaves his house. His concentration has been impaired since and he had not resumed his job.

He complains of tingling and loss of sensation in both feet. 3 months ago he underwent laser treatment due to progression of his retinopathy.

He feels his quality of life is significantly impaired due to his diabetes complications and would like your assistance in controlling his diabetes.

Case no. 2

A 70 year old man is bedridden residing in a nursing home.

He suffers of multi-infarct dementia and is unable to care for his ADL, though he still recognizes his family members and communicates basic requests to his family and staff. His wife visits him regularly joins him for breakfast, and does her best in caring for all his needs.

He has had diabetes for 10 years, complicated by mild CRF and retinopathy.

He stopped smoking 7 years ago, after his myocardial infarction.

His current diabetes treatment regimen comprises of a low dose of long acting insulin analogue.

Case no. 3

An 80 year old lawyer is a partner in a major law firm.

He comes to his physician due to 2 repeated tests of HBA1C of 7 and 7.3 requesting treatment for his diabetes.

Seven years ago he suffered a myocardial infarction and is taking several cardiovascular and hypertensive medications on a regular basis.

His physical exam including office fundoscopic examination and monofilament testing of his feet is normal. Microalbuminuria - negative.

Case no. 4

An 87 year old male is married and has 2 children and many grandchildren and great-grandchildren. He retired from his business many years ago but still works in his orange groves; he lives in a small village in the north of the country.

He has been known to be diabetic for over 20 years and during the last five years is treated with multiple injections of insulin, and metformin twice a day. He occasionally forgets his prandial insulin injections though generally remembers his long acting insulin at bedtime.

20 years ago he suffered an acute MI and made an uneventful recovery.

He complains of numbness of his feet at night.

Recent fundoscopic examination was normal, as was his urinary microalbumin.

He visits his physician regularly, every 3 months, though he is somewhat reluctant to making any changes to his treatment regimen.

Since his recent CVA his memory has declined and he occasionally forgets the names of his grandchildren.

SUPPLEMENTARY DATA

Case no. 5

A 45-year old Hispanic woman comes to her doctor for recommendations regarding her weight. She is married, has 2 children in school and works full time as a bookkeeper. Her husband runs the local grocery and has recently opened a branch in the nearby neighborhood.

She underwent a hysterectomy 6 months ago due to menorrhagia and takes her iron pills meticulously every day.

Physical examination, including fundoscopic examination was unremarkable besides a BMI of 31.5.

Laboratory results included a HBA1C of 8.2 and random glucose of 230. Microalbumin - negative.

The patient had not been previously aware of hyperglycemia, though her laboratory results a year ago were "borderline".

She is willing to make significant changes in her lifestyle.

Case no. 6

A 40-year-old male living with his single unemployed brother, has a 7-year duration of schizoaffective psychosis. He spends most of his time wandering aimlessly around his neighborhood or watching cartoons. He does not take his antipsychotics regularly.

He was admitted to the diabetology service because of acute hyperglycemia.

He smokes three packs of cigarettes per day, and denies any use of alcohol and illicit drugs.

Reviewing his medical file, hyperglycemia was noted already 10 years ago.

His urine tested negative for microalbumin. Fundoscopic examination revealed bilateral BDR.

In addition to taking care of his acute condition, what is his desirable A1C?

SUPPLEMENTARY DATA

New cases, submitted for the validation study

Case 1:

A 47 year old woman is married has 2 children and works in a large law-firm. She was diagnosed with T2DM 4 years ago. She attends the diabetes clinic regularly and is not suffering of any diabetes complications. Her BMI is 32.5 and has been unchanged since diagnosis in spite of multiple attempts at lifestyle modification. She is currently treated with metformin and a DPP-4 inhibitor, though she occasionally omits her morning dose, if she's in a rush for work. What glycemic target would you strive for?

Case 2:

A 75 year old man is divorced and has 1 child whom he rarely sees. His retirement pension generally covers most of his everyday needs and he is fully independent. He was diagnosed with diabetes 10 years ago while being hospitalized for unstable angina and a concurrent PTCA. His IHD has been stable since. He additionally has well controlled hypertension and hyperlipidemia. There is no evidence of microvascular complications. His BMI is 28.5. His treatment regimen includes aspirin, atenolol, atorvastatin, ramipril, metformin and glimepiride (4mg bid) and he takes his medications most of the days. He does not exercise regularly and does not adhere to a particular dietary regimen. Which glycemic target would you aim for?

Case 3:

A 67 year old man has been diagnosed with diabetes over 20 years ago. Due to some cognitive decline, he has recently retired, leaving the management of his successful business firm to his son. He is an active smoker and suffers of IHD and CHF NYHA IV and he rarely leaves the house. He underwent CABG 12 years ago and 2 PTCA's in the last 3 years. He suffered from a diabetic neuropathic ulcer last year and has severely reduced renal function with 24 hours urinary albumin excretion of over 2 gr/d. His treatment regimen includes aspirin, rosuvastatin, enalapril, atenolol, monocord, furosemide, a DPP-4 inhibitor, bedtime insulin and an injection of short acting insulin for lunch. He generally thinks he is taking "too many medications which aren't doing any good anyway" and is unwilling to modify his dietary or smoking habits.

What glycemic target would you aim for?