



Santé Diabète

*Annual report
2021*



IN 2021 SANTE DIABETES WORKED ON THE DEVELOPMENT OF ITS ETHICAL CHARTER WHICH WILL BE OFFICIALLY ADOPTED DURING THE 2022 GENERAL ASSEMBLY

GENERAL PRINCIPLES

As a non-governmental organisation (NGO), Santé Diabète (SD) draws upon the fundamental principles which should guide humanitarian action, that is to say, principles of humanity, neutrality, impartiality and independence. The principle of humanity mainly involves finding solutions everywhere there is human suffering by being particularly mindful of the most vulnerable populations.

SD aims to enforce the fundamental right to health found in both the Constitution of the World Health Organisation (WHO) and Sustainable Development Goal 3 of the United Nations ("SDG 3"): "Good Health and Well-Being". According to the WHO, "Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity. The enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being without distinction of race, religion, political belief, economic or social condition". SD thereby aims to promote access to health for people affected by diabetes (Type 1, Type 2, Gestational) in its countries of intervention as well as to prevent its development and its risk factors amongst the general population.

To achieve this goal, the SD approach focuses on strengthening health systems by working on the 6 WHO Building Blocks:

1. Service Delivery
2. Health Workforce
3. Health Information Systems
4. Essential Medical Products and Technologies
5. Health System Financing
6. Leadership and Governance

HUMANITARIAN PRINCIPLES

Under certain circumstances, SD intervenes in emergency situations with distressed populations, victims of natural or man-made disasters as well as armed conflict. SD fosters a political interference-free approach without distinction of race, religion, beliefs or politics.

SD undertakes to respect ethical principles and maintain complete independence from all political, economical and religious powers.

By not taking sides in the event of conflict, being actively neutral and completely impartial, we advocate universal medical ethics in the access to care.

CARE

Although care is sometimes only approached from a biomedical perspective, we consider it necessary to take on a comprehensive and holistic approach that not only includes clinical care, but also includes therapeutic education, psychosocial support and implements preventive initiatives to develop strong and resilient public policies. SD values thereby focus on this comprehensive and holistic care by seeking to achieve what the WHO calls "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity" for individuals.

Advocate Patients' Full Involvement

SD fosters therapeutic education initiatives, which aim to improve patient compliance and quality of life. This approach not only enables patients to play an active part in their condition and improve their well-being and quality of life, but also in health system governance.

Strengthen Health Systems and the Partnership-based Approach

The holistic care approach, advocated by SD, has yielded support for the implementation of strong and resilient public policies, which enables health systems to be strengthened in the long-term. Rather than using an overly vertical and siloed approach between conditions, SD advocates the 6 WHO Building Blocks Approach, which also enables mainstreaming work with a comorbidity-based approach and includes the prevention and management of diabetes comorbidities/HIV and diabetes/TB.

This has also enabled the support in the implementation of medical insurance systems, which would enable individuals to access a vast range of care and meet their basic needs. Build and improve capacities in Global South

countries, mainly by improving health systems and training for healthcare professionals. All technical assistance with health authorities, training initiatives for healthcare professionals as well as on health product supply chains, are not only conducted by endorsing a South-South and North-South co-operation, but also a South-North cooperation. In the South, this thereby makes it possible to build on the research already conducted in countries with a similar economic and social profile. This approach also enables stakeholder networks to be developed to ensure a strong initiative and partnership foothold. To ensure the sustainability of these initiatives, SD applies a non-replacement principle for health systems and local stakeholders alike.

Medical Ethics

The approach undertaken by SD respects the principle of medical ethics. This requires care to be provided under the principle of neutrality, without doing any harm (either to an individual or a group), and anyone who benefit from the SD response to be assisted with humanity and impartiality whilst respecting medical confidentiality.

Independence and Rejection of Conflicts of Interest

As well as abstaining from all conflicts of interest that could lead to a form of partiality, SD bases its field-based and advocacy initiatives on facts and science. To ensure this is the case, SD rejects all conflicts of interest with food and health product industries, as those could have a negative impact on the Santé Diabète lines of work. This approach enables the implementation of the most respectful and effective initiatives possible to meet people's needs, by providing advocacy initiatives aiming to improve public policies.

Science and High standards at the Heart of Our Interventions

To develop its initiatives and build advocacy strategies, SD fosters a combined research and operational response approach. Using translational and qualitative medical research enables a better understanding of the areas of intervention to implement the most appropriate response. It also allows an assessment of the actions undertaken and thereby validate the results using international peer review mechanisms. This approach also prevents any "fake news" and thereby ensure accuracy and high standards in terms of semantic in all publications and information it publishes.

Opposing All Kinds of Child Abuse

SD strongly opposes all kinds of paid or unpaid work for school-age children.

Assess Public Policies

SD implements a political neutrality and impartiality-based approach and therefore never intervenes in the event of political conflict. However, in view of its line of work and mission, SD supports public policies undertaken in the most neutral, objective, pragmatic, non-partisan and apolitical manner possible. It is therefore vital to highlight the relevance of the initiatives undertaken when they are constructive and in the interest of co-developing access to health for all.

Non-Discrimination

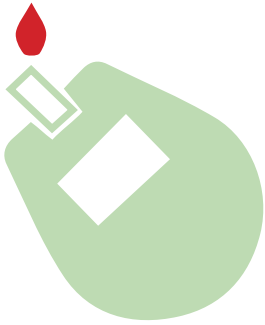
SD enforces this same principle of neutrality, non-discrimination and professionalism within its teams and also considers diversity an asset. SD rejects all discrimination based on race, ethnicity, sex, gender, sexual orientation, religion, nationality, opinion or class.

Environment

SD conducts environment-friendly and sustainable initiatives whenever possible.

Financial Transparency and Self-Assessment

By receiving funds to undertake essential initiatives and systematically ensure the correct use of these grants, SD is aware of its responsibility. It thereby advocates a complete financial transparency-based approach to its accounts, with their systematic publication. SD constantly assesses the success of its programmes and their implementation using monitoring-evaluation and external evaluation initiatives.



THE FIGHT AGAINST DIABETES: a global health emergency

7th leading cause of death in the world and affecting 537 million people (i.e. 1 in 10 people in the world, 10.5% of the world's population), diabetes is now a disease that strikes hard in all countries, whether high, low or middle income. In 2021, the number of new people with diabetes is estimated at around 37 million (74 million for 2020 and 2021). In 2021, 8 out of 10 people with diabetes lived in a low- or middle-income country. An estimated 6.7 million people died of diabetes in 2021¹.

The fight against diabetes has thus become a real global health emergency.

The alarming progression of diabetes is directly linked to the evolution of our lifestyles. Sedentarisation, massive urbanization, production methods and food consumption have a strong impact on human health and on the environment and increase the risk of developing non-communicable diseases (NCDs) such as diabetes. If nothing is done to halt this increase, the number of people with diabetes will rise to 783 million by 2045.

In addition, the poor access to life-saving medicines and monitoring tools in the management of diabetes, is nowadays a major problem throughout the world, and in particular in low-income countries such as French-speaking African countries. Improving access to insulin is a major challenge for the years to come.

¹ Source: IDF Diabetes Atlas, 2021, 10th edition, www.diabetesatlas.org, International diabetes Federation

SOMMAIRE

THE FIGHT AGAINST DIABETES: A GLOBAL HEALTH EMERGENCY	1		
MESSAGE FROM THE CHAIR OF OUR BOARD	3		
WHO ARE WE?	4		
18 YEARS OF ACTION	5		
FINANCIAL TRANSPARENCY	6		
DIABETES IN THE WORLD	8		
DIABETES: AN “EPIDEMIC” IN AFRICA	9		
		<ul style="list-style-type: none">• PREVENTION AND MANAGEMENT OF DIABETES / HIV AND DIABETES / TB COMORBIDITIES	23
		<ul style="list-style-type: none">• FOCUS: CHAIR OF PHILOSOPHY AT THE HOSPITAL	23
		<ul style="list-style-type: none">• COMPUTERIZATION OF DATA, “DATAHUB” AND DATA OBSERVATORY	24
OUR COUNTRIES OF INTERVENTION	10	3. STRENGTHENING NATIONAL POLICY FRAMEWORKS	24
MALI	10		
UNION OF THE COMOROS	10	4. STRENGTHENING NATIONAL FRAMEWORKS FOR DIALOGUE AND ACCESS TO MEDICINES	25
BURKINA FASO	11		
FRANCE	11	5. PROJECT MONITORING PROCESS, STRUCTURING OF THE NGO AND ORGANIZATION CHART	26
2021 PROJECTS	12	<ul style="list-style-type: none">• PROJECT MONITORING PROCESS	26
« RéseauDiab » PROJECT	12	<ul style="list-style-type: none">• LAUNCH OF OUR THREE-YEAR PROGRAM	26
THE DIABETES/HIV/TUBERCULOSIS COMORBIDITIES PROJECT	12	<ul style="list-style-type: none">• STRENGTHENING THE NETWORK BETWEEN DIFFERENT PROJECT, STAKEHOLDERS & CROSS-CUTTING ACTIONS	27
		<ul style="list-style-type: none">• STRENGTHENING THE NETWORK: INTERNATIONAL CONNECTIONS	27
2021 RESULTS	13	6. RESEARCH	28
I. OUR PREVENTION ACTIONS	13	7. « DIGITAL JOURNEY », INTERNATIONAL MISSIONS AND ADVOCACY	31
• LAUNCH OF PREVENTION HOUSES	13	<ul style="list-style-type: none">• « DIGITAL JOURNEY »	31
• FOCUS: REGIONAL PREVENTION HOUSES IN MALI	15	<ul style="list-style-type: none">• INTERNATIONAL MISSION TO LA RÉUNION AND DIJBOUTI	31
• WORLD DIABETES DAY (WDD)	16	<ul style="list-style-type: none">• AFRICAN MEDICINES AGENCY	31
• FOCUS SCREENINGS IN 2021	16	<ul style="list-style-type: none">• IRIS SUP PROJECT	31
• JOURNALISTS' NETWORK	17		
• DIABETES PREVENTION IN SCHOOLS	17	8. ADVOCACY AND COMMUNICATION: MEETING OF FRANCOPHONE EXPERTS IN GRENOBLE	32
• INTERCULTURAL EXCHANGE ACTIVITIES IN SCHOOLS	18		
• FRANCE: PREVENTION ACTIONS FOR TARGET POPULATIONS	18	9. ADVOCACY AND COMMUNICATION: MOBILIZATION FOR THE CENTENARY RESOLUTION ON INSULIN	33
• FOCUS: STRENGTHENING OF PATIENT ASSOCIATIONS	19		
• STRENGTHENING OF CIVIL SOCIETY ORGANIZATIONS ON PREVENTION	19	10. COMMUNICATIONS AND PUBLICATIONS	35
		<ul style="list-style-type: none">• INSTITUTIONAL PRODUCTIONS	35
2. OUR ACTIONS TO STRENGTHEN THE ACCESS TO CARE	20	<ul style="list-style-type: none">• OP-EDS	35
• DEGREE TRAINING: D.E.S IN ENDOCRINOLOGY AND DIABETOLOGY	20	<ul style="list-style-type: none">• ARTICLES AND PUBLICATIONS	36
• TRAINING OF 3 RD REFERENCE PROFESSIONALS (NATIONAL HOSPITALS)	20	<ul style="list-style-type: none">• CONFERENCES	37
• TRAINING OF SECOND REFERENCE PROFESSIONALS (HOSPITALS AND REGIONAL HEALTH CENTERS)	20	<ul style="list-style-type: none">• FILM	37
• FOCUS: TRAINING OF HEALTHCARE PROFESSIONALS FOR THE MANAGEMENT OF TYPE 1 DIABETES AND THERAPEUTIC EDUCATION OF PATIENTS T1D	21	TESTIMONIALS	38
• NUTRITION / DIABETES TRAINING	22	OUR AREAS OF EXPERTISE	39
• E-TRAINING	22	OUR TECHNICAL & FINANCIAL PARTNERS	40



THE YEAR 2021 MARKS THE CENTENARY OF THE DISCOVERY OF INSULIN.

David Hacquin - President of Santé Diabète



@david_hacquin



The year 2021 marks the centenary of the discovery of insulin. A century later, access to diabetes treatments is far from being a reality for everyone. The concentration of production capacity in the hands of three large global pharmaceutical companies continues to create a monopoly situation, and has consequences on the supply and on the prices of insulin throughout the world. These high prices represent a major barrier to access to insulin, in particular in developing countries.

2021 has been a particularly rich year of commitments and advocacy for Santé Diabète. A well-conducted advocacy campaign that led to the adoption of an ambitious resolution for greater price transparency and for greater insulin production at the 74th World Health Assembly (WHA). Today even more than yesterday, Santé Diabète has demonstrated its ability to engage in an effective network dynamic to influence major issues around the right to health for all.

From an operational point of view, Santé Diabète entered in 2021 the cruising phase of the first phase of the 2020-2023 program agreement co-financed by the AFD, WDF, Helmsley Charitable Trust, LFAC, the Auvergne Rhône Alpes region, the City of Grenoble etc., with an intensification of the implementation of its activities. A second project funded by the Initiative/Expertise France started in June 2021 for 3 years. It focuses on the integration of prevention and joint management of Diabetes/Tuberculosis and Diabetes/HIV to strengthen health systems in Mali, Burkina Faso and in the Union of the Comoros. Through this program, Santé Diabète is positioning itself as a central player in supporting the prevention and management of diabetes in these three countries, as well as in France.

In 2021, among the main results and significant impact of Santé Diabète's action, we can highlight, among others :

- The long-term work carried out to strengthen health systems through the training of health professionals (doctors, paramedics), but also by supporting the improvement of strategic frameworks in the fight against diabetes in our countries of intervention ;
- The continuation of our diabetes, hypertension and risk factors for diabetes screening actions, as well as therapeutic education days, in these same countries;
- In terms of access to treatments, the initiation of dialogue frameworks on access to antidiabetic drugs, particularly insulin, and their operationalization;
- The networking of the various actors of the project, as well as of teams, and the development of transversal south-south and south-north actions in order to share and capitalize experiences, productions and tools, but also to build innovative answers to the problems encountered (for example: development of a Humanity and Health chair in Bamako with the *Paris philosophy chair at the hospital*; the establishment of a resource center, etc.)

- The continuation of the work of Education for Citizenship and International Solidarity in France: continuity of work with schools; strengthening community prevention actions (Grenoble); organization of the French-speaking synergy conference in Grenoble.

The year 2021 has also been an opportunity to initiate internal improvement projects, in order to be able to respond to the gradual growth of our activity: work on our ethics charter, our new procedure manual, strengthening of human resources and of their management.

On the financial side, the indicators are satisfactory: regular and controlled growth of the budget, net balance positive for 2021 once again, equity in progress, continued diversification of our sources of financing (with the Helmsley Charitable Trust).

Our contexts of intervention are, for their part, crossed by political and social tensions, and shaken by recurrent economic shocks, which are increasingly uncertain and fragile. In the years to come, we will most likely face :

- the persistence of mobility constraints in countries and between countries, due to the deterioration of the socio-political, security and health contexts in our countries of intervention;
- increased security risks.

We will therefore have to be particularly vigilant about these risks, in order, if they were to materialize, to be able to anticipate the decisions to be taken.

Despite these uncertainties, Santé Diabète remains committed to continuing its fight for a fairer world, and for better access to the prevention and management of diabetes throughout the world. Santé Diabète would not be this efficient, innovative, family-run and professional organization without the daily commitment of its employees, the involvement of its members, and the loyalty and support of its partner organizations. May they all be here thanked.



WHO ARE WE?

Santé Diabète is a Non-Governmental Organization founded in 2001 to respond to the lack of access to care for people with diabetes in Africa and to the lack of consideration of this health emergency by development actors.

First in Mali, Santé Diabète then developed its actions in Burkina Faso, in the Union of the Comoros, as well as in France (headquarters of the association), with permanent teams in each country.



SANTÉ DIABÈTE IN 2021



40
collaborators



200
partners



10 269
pupils sensibilized



81 273
people at risk screened



2 070
health professionals trained



25 000
people supported
(type 2 diabetes)



1 040
children with type 1 diabetes
who had freely access to care

OUR MISSION

Strengthening and structuring health systems for better prevention and management of diabetes

We contribute to the fight against diabetes at the global level by being one of the independent NGOs recognized by the World Health Organization (WHO) as a member of its global coordination mechanism for non-communicable diseases (NCDs).

Santé Diabète has developed unique expertise in diabetes in Africa and in low- and middle-income countries, which has had as a consequence to get regular requests at the international level (missions to strengthen national health systems, involvement in expert studies, etc.). At the same time, since 2011, Santé Diabète has been conducting in France a health education and international citizenship program.

OUR APPROACH

Santé Diabète has a unique approach

- We are the first NGO specialized in the fight against diabetes in Africa
- We sustain diabetes care by strengthening local health systems
- We act directly with ministries, health directorates, national, regional and local healthcare structures
- We contribute to building a strong civil society by supporting patient associations
- We promote South-North, South-South and North-South collaborations
- We alert through international advocacy
- We contribute to the global fight against diabetes by being the only independent NGO recognized by the World Health Organization (WHO) and member of its global coordination mechanism for non-communicable diseases (NCDs)
- We agitate an international network for local solutions
- Our operational structure and management are based in Western Africa the closest to the field.

18 YEARS OF ACTION



A vertical timeline on the left side of the page, consisting of a brown line with circular markers at each year. The years 2001, 2003, 2012, 2013, 2016, 2017, 2018, and 2019 are highlighted with green circles. The text for each year is in a light green font.

2001
Launch of the NGO «Santé Diabète Mali»

2003
Launch of the first activities of the NGO in Mali

2012
Launch of a delegation in Burkina-Faso and change of name "Santé Diabète"

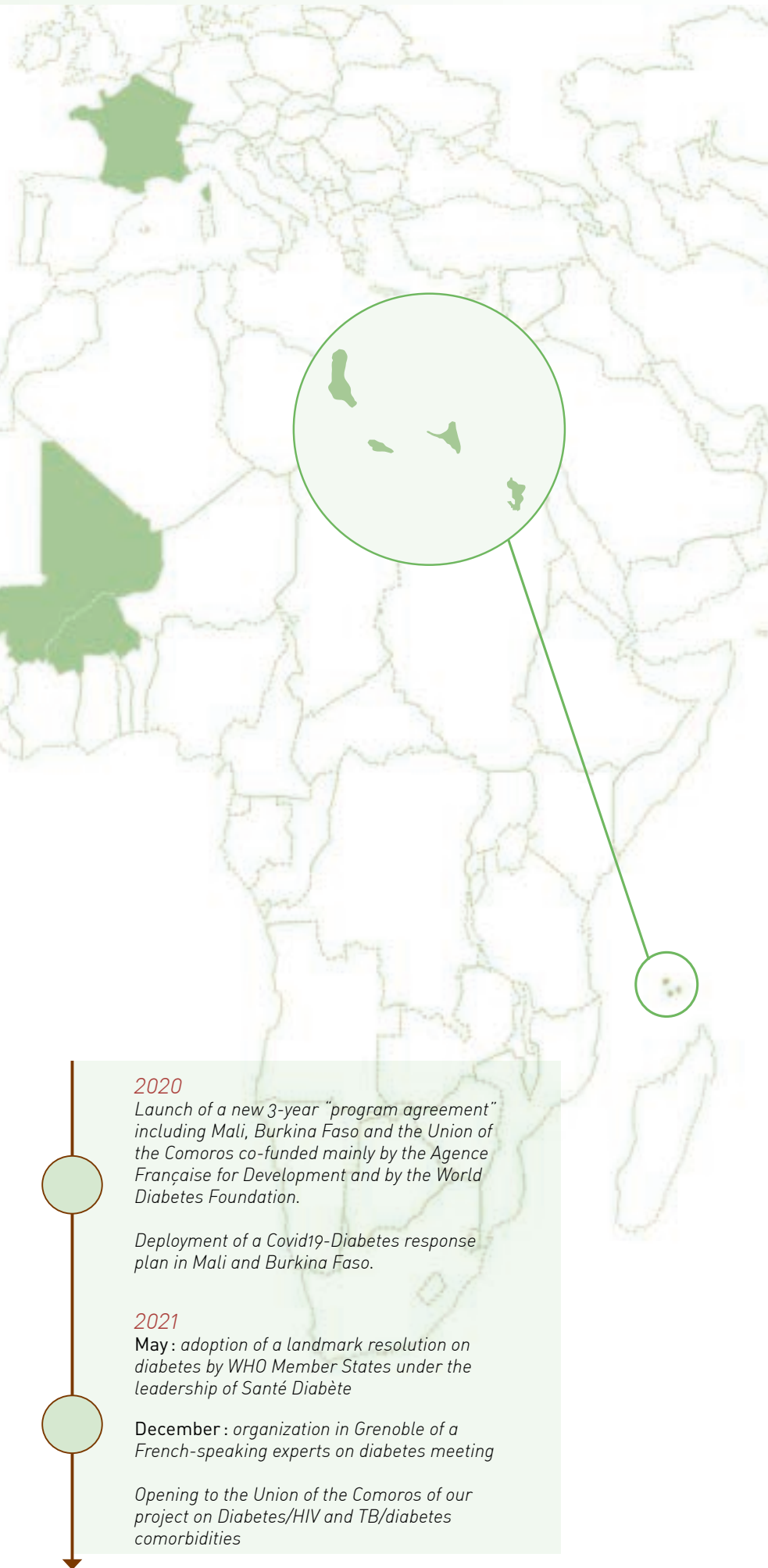
2013
Launch of a delegation in Senegal

2016
Launch of a delegation in the Union of the Comoros and launch of a program to fight diabetes in the archipelago.
"AFD diabetes prevention expertise" mission in French Polynesia

2017
Launch of a 3-year "Programme Convention".
Implementation of a care integration program: diabetes / HIV and diabetes / TB in Burkina Faso and Mali funded by « L'Initiative 5% ».

2018
Santé Diabète selected to participate in the 3rd United Nations high-level meeting on NCDs in New York..

2019
Organization of an "inter-country" meeting



A map of Africa and French territories in the Indian Ocean and Pacific. The map is light green with brown outlines for countries. Several areas are highlighted in a darker green: France, Mali, Burkina Faso, Senegal, the Comoros archipelago, and French Polynesia. A large green circle highlights the Comoros archipelago, with a line connecting it to a smaller green circle on the right side of the page. Another green circle highlights the Comoros archipelago on the right side of the page, with a line connecting it to a larger green circle on the left side of the page.

2020
Launch of a new 3-year "program agreement" including Mali, Burkina Faso and the Union of the Comoros co-funded mainly by the Agence Française for Development and by the World Diabetes Foundation.
Deployment of a Covid19-Diabetes response plan in Mali and Burkina Faso.

2021
May : adoption of a landmark resolution on diabetes by WHO Member States under the leadership of Santé Diabète
December : organization in Grenoble of a French-speaking experts on diabetes meeting
Opening to the Union of the Comoros of our project on Diabetes/HIV and TB/diabetes comorbidities

FINANCIAL TRANSPARENCY

Strict external and internal financial control mechanisms has enabled Santé Diabète to report at all times on the proper use of the funds entrusted to it: annual external audits carried out by approved international audit firms, certification of accounts of the association by an auditor, external audits of our partners.



ORIGIN OF RESOURCES 2021

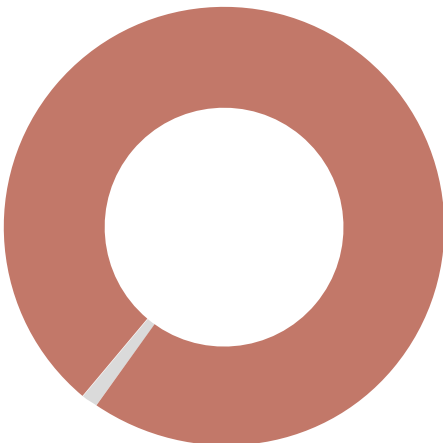
70%
Private origins



30%
Public endowments

UTILISATION DES FONDS 2021

98,8%
social missions



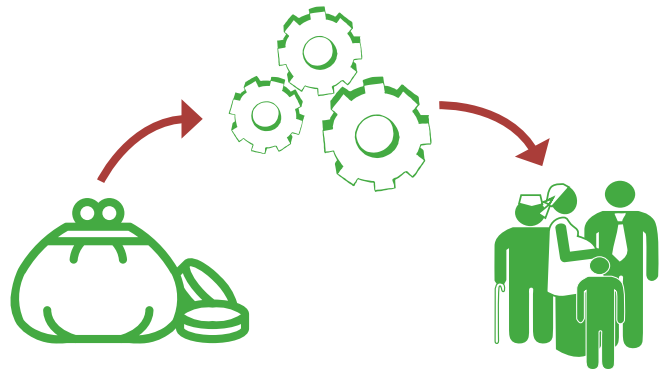
1,2%
operating costs

98,8% OF OUR FUNDS ARE DIRECTLY USED IN THE FIELD

The administrative and financial strengthening of Santé Diabète, driven by the management unit including the Administrative and Financial Director and the Administrative and Financial Managers of each delegation, continued in 2021, with significant progress in structuring accounting, financial and administrative harmonization procedures as well as internal and external control procedures.

We have implemented an external control carried out during international audits, and since 2018 set up a quarterly internal control procedure (carried out by the administrative and financial director of Santé Diabète) in order to control the accounts and the accounting documents of the head office and of all the delegations of the NGO.

Our internal control mechanism, reinforced by annual audits, the unqualified certification of our accounts, and international audits guarantee the reliability of our accounts and the proper use of funds entrusted to the NGO Santé Diabète. These strengthening of internal and external controls have enabled us, for several years now, to ensure even greater financial transparency and the regular publication of our accounts.



FOCUS : IN 2021

In 2021, the financial indicators are satisfactory, as they show steady and controlled growth in turnover, positive net income again for 2021, increased equity, continued diversification of our sources of financing.

ORIGINS OF EXPENDITURES (€) YEAR 2021		ORIGIN OF FUNDS (€) YEAR 2021	
Supply procurement	67 774,40	Ventes de marchandises	56 920,65
Stock variation (supplies)	- 7 819,44	Production vendue (biens et services)	120 766,66
Other external expenses	709064,11	Production stockée	-
Taxes, duties, and similar payments	-	Production immobilisée	-
Staff remuneration	491 275,74	Subventions d'exploitation	2 105 905,47
Social security contributions	92 144,66	Autres produits	99 067,34
Depreciation charges	30 482,17	Produits financiers	6 418,49
Provisions	-		-
Other expenses	98 003,93		-
Financial expenses	110,23		-
TOTAL (I)	1 481 035,80	TOTAL (I)	2 389 078,61
EXTRAORDINARY EXPENSES (II)	2 290 184,32	EXTRAORDINARY REVENUES (II)	1 533 583,63
INCOME TAXES (III)	454,00		-
TOTAL EXPENSES (I+II+III)	3 771 674,12	TOTAL REVENUE (I+II)	3 922 662,25
PROFIT OR LOSS	150 988,13		-
TOTAL	3 922 662,25	TOTAL	3 922 662,25
FREE PROVISION OF GOODS	3 872 40,86	VOLUNTEERING	180 000,00
SERVICES	-	BENEFITS IN KIND	-
VOLUNTEER STAFF	180 000,00	DONATIONS IN KIND	3 872 040,86
GRAND TOTAL	7 974 703,11	GRAND TOTAL	7 974 703,11

Supply procurement: corresponds to the needs of the association in terms of products or services necessary for its operation.

Stock variation: the difference between opening inventory and closing inventory allows only purchases consumed and products sold during the year to be taken into account.

Other external expenses: includes all expenses incurred with providers by the association other than salaries and taxes.

Taxes, duties and similar payments: charges corresponding to compulsory payments to the State and local authorities in order to support public expenditure.

Staff remuneration and social security contributions: all employee-related costs (wages and wage costs).

Depreciation charges: concern all tangible fixed assets but only part of the intangible fixed assets. Allows the recognition of the decrease in value of a fixed asset due to its use over time.

Other expenses: expenses incurred outside of the association's regular providers.

Financial expenses: expenses related to foreign exchange losses and bank account charges

Income taxes: costs calculated on the basis of the profits made by the association

Profit or loss: if the difference between the association's income and expenses is positive, its net result shows a profit. If the difference between the association's income and expenses is negative, its net result shows a loss.

Free provision of goods and services: includes the value of medical equipment and products made available to the beneficiaries of the association.

Voluntary staff: covers the costs of the fees of the experts who work for the association free of charge.

Sale of goods: all the goods sold by the association.

Production sold (goods and services): includes the income generated by the association's services.

Operating subsidies: grants received by the association.

Other revenues: other income received apart from subsidies.

Financial revenues: interest received on bank accounts.

Donations in kind: includes the value of medical equipment and products made available to the beneficiaries of the association.

DIABETES IN THE WORLD: AN ALARMING PROGRESSION



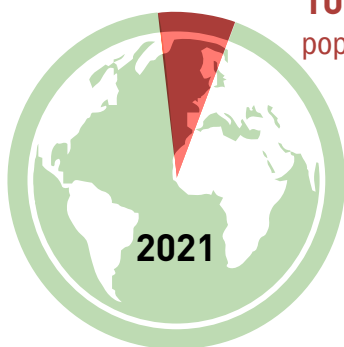
Diabetes is a disabling and costly chronic disease for people and health systems which, according to the International Diabetes Federation, affects more than 537 million people worldwide, nearly 80% of them in low- and middle income countries. It is responsible for 6.7 million deaths in 2021 according to the IDF. If nothing is done, more than 783 million people will have diabetes by 2045¹, making this disease one of the main causes of disability and death in the world. In just over 30 years, the number of people with diabetes has quadrupled.

The alarming progression of diabetes is directly linked to the evolution of our lifestyles (sedentarisation, massive urbanization, production methods and food consumption, etc.) which has a strong impact on health and on the environment and strengthens the risk of developing non-communicable diseases such as diabetes.

¹ Source: IDF Diabetes Atlas, 2021, 10th edition, www.diabetesatlas.org, International diabetes federation

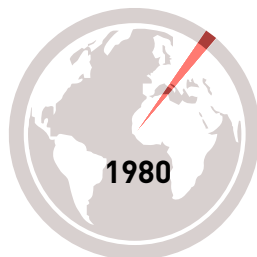
DIABETES IN THE WORLD

537 million people with diabetes in 2021



10.5% of the world population 2021

108 million people with diabetes in 1980



2.4% of the world's population

9th cause of death (in 2019)



6.7 million deaths in 2021



240 millions people live with undiagnosed diabetes worldwide, **90%** of these people live in low- and middle-income countries

REMINDER ON DIABETES

Diabetes is a chronic disease that consists of a dysfunction in the metabolism of sugar in the body, which leads to its accumulation in the blood. There are three main types of diabetes.

Type 1 diabetes

The pancreas no longer produces insulin. This type of diabetes affects 10% of people with diabetes. It particularly affects children, adolescents or young adults, forcing them to inject insulin daily.

Type 2 diabetes

The pancreas produces insulin, but in an inadequate quantity and the body is poorly receptive to it. This type of diabetes concerns 90% of people affected by the disease and particularly adults over 45, sedentary and overweight

DIABETES AND PREGNANCY

Gestational diabetes

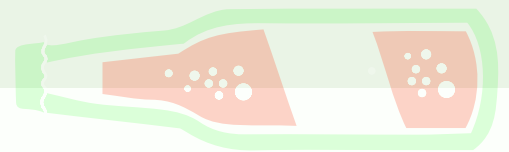
According to the WHO definition, gestational diabetes is "a carbohydrate tolerance disorder leading to hyperglycaemia of variable severity, beginning or diagnosed for the first time during pregnancy». As with T1D and T2D, gestational diabetes causes excess sugar in the blood or chronic hyperglycemia. To prevent it, it is therefore essential for women to be followed-up by healthcare professional during pregnancy. Women with gestational diabetes have an increased risk of complications during pregnancy and childbirth, as well as developing type 2 diabetes later in their life.

Pregnancy of women with diabetes

Women with diabetes are more at risk of miscarriage or having a baby with birth defects (e.g. heart and kidney defects) if blood sugar control is suboptimal, especially during the first 3 months of pregnancy when the baby's organs are forming. This is why strict glycemic control and rigorous monitoring can greatly reduce most of these risks. In Africa, due to lack of access to diabetes screening, many women with diabetes are only diagnosed during their pregnancy which can lead to confusion between pre-existing, undetected diabetes and gestational diabetes.



Diabetes is no longer only a disease of rich countries. Africa, with 24 million adults living currently with diabetes, is hit hard by the outbreak of this disease. Projections for the future are alarming. The continent should thus experience in the next thirty years the most significant increase in the prevalence of diabetes in the world, with an increase of 134% (estimated increase from 23.6 million to 54.9 million in 2045) for the WHO African region, followed by the MENA region including North Africa. By that time, the prevalence of this disease will exceed 5% of the continent's population.



DIABETES: AN “EPIDEMIC” IN AFRICA

If nothing is done to stop the outbreak of diabetes, Africa is the continent that will experience the most significant increase with a doubling of the prevalence of the disease. This outbreak of the disease is mainly due to the profound changes in lifestyles underway on the continent, and in particular increasing urbanization, leading to a nutritional

transition and a significant drop in physical activity. With direct consequences: the issues of overweight, affecting both wealthy classes and the working classes, today exceed the issue of underweight. With the presence of these two forms of malnutrition, we now speak of a “double nutritional burden” where undernutrition and overnutrition coexist.

THE CHALLENGES OF ACCESS TO CARE IN AFRICA



The continent is **sorely lacking of trained health professionals** and dedicated structures.



20% of the average annual income of a family can be dedicated to the purchase of treatments and the payment of biological analyses.



80% of people with type 2 diabetes are not diagnosed and therefore not treated, with the corollary of an increase in disabling complications.



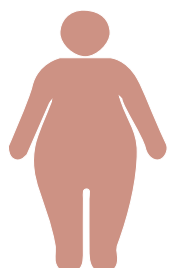
95% of children with type 1 diabetes are untreated and have a life expectancy of less than 1 year.

Sources : International Diabetes Federation, *Diabetes Atlas, 2021*, *Le Monde*, “Faced with the scourge of diabetes in Africa, global mobilization is urgently needed”, June 27, 2017.

OTHER SOCIO-CULTURAL FACTORS MAKE MANAGEMENT DIFFICULT :

The difficulty of setting up an adapted dietetics: in Africa, feeding in a “big family”, by hand and in a common main dish, makes it difficult to control the quantity of food ingested and the possibility for the patient to individualize his food ration.

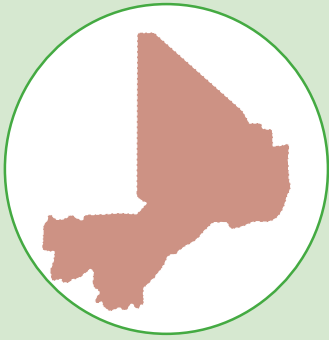
The “prestige” linked to overweight and to obesity constitutes additional resistance.



OUR COUNTRIES OF INTERVENTION

The NGO Santé Diabète operates in 4 countries: in Mali, since 2003, in Burkina Faso since 2012, in the Union of the Comoros, since 2016, and in France, headquarters of the organization.

MALI

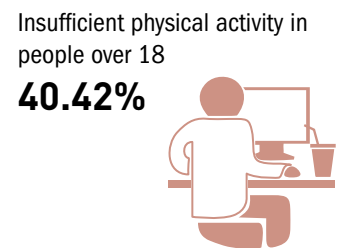
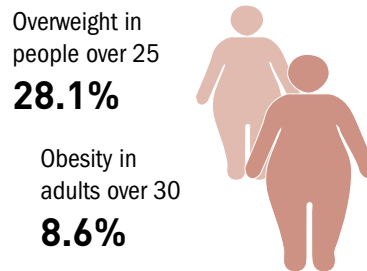
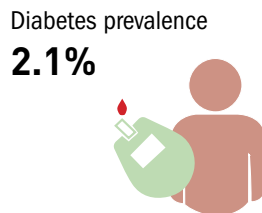
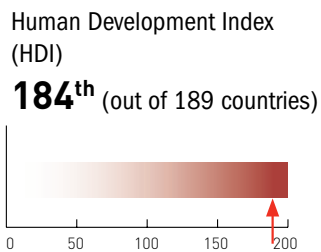


Mali, one of the poorest countries on the world, has one of the lowest densities of health professionals in the world with only 0.7 doctors and 2 nurses on average per 10,000 inhabitants. The burden of Non-Communicable Diseases (NCDs) continues to explode with currently more than 2.1% of the adult population suffering from diabetes and 18% from high blood pressure.

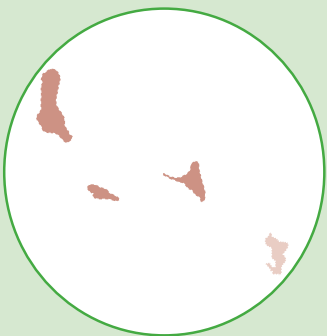
In Mali, the number of adults with diabetes is estimated between 100,000 and 500,000. Mali is already very badly affected with:

- A comparative prevalence of diabetes in adults (20-79, age-adjusted): 2.1%
- A prevalence of T1D in children and adolescents (0-19 years): 1.02 / 100,000
- Prevalence of risk factors:
 - Overweight in adults over 25: 28.1%
 - Obesity in adults over 30: 8.6%
 - Insufficient physical activity in adults over 18: 40.42%

KEY FIGURES: MALI



UNION OF THE COMOROS

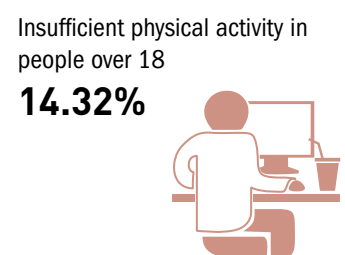
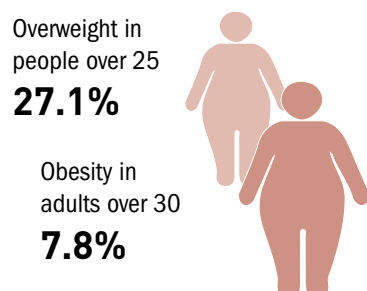
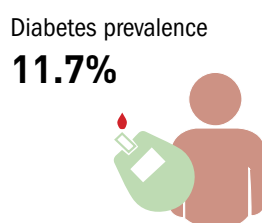
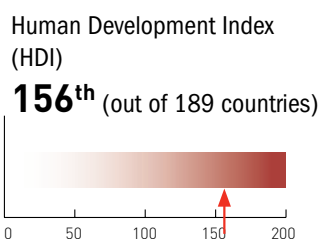


Located in the Indian Ocean, the Union of the Comoros remains among the poorest countries in the world. The coverage of health professionals is very low with only 1.9 doctors on average per 10,000 inhabitants and barely 2.6 nurses per 5,000 inhabitants. This low coverage still does not make it possible to provide the population with sufficient health services, particularly for NCDs which have become an epidemiological burden throughout the country, with the example of diabetes which affects now 12.3% of the population.

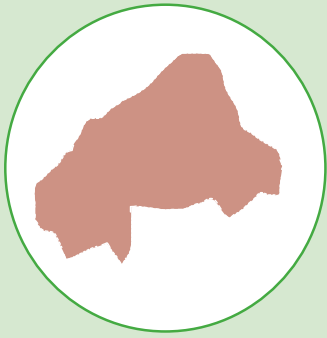
The Union of the Comoros is also strongly affected with:

- A comparative prevalence of diabetes in adults (20-79, age-adjusted): 11.7%
- A prevalence of T1D in children and adolescents (0-19 years): 6.625 / 100,000
- Prevalence of risk factors:
 - Overweight in adults over 25: 27.1%
 - Obesity in adults over 30: 7.8%
 - Insufficient physical activity: 14.32%

KEY FIGURES : UNION OF THE COMOROS



BURKINA FASO



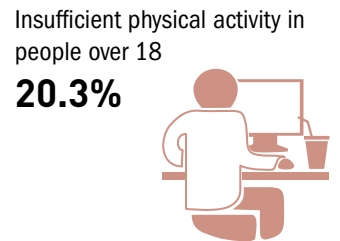
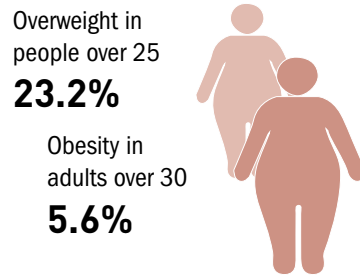
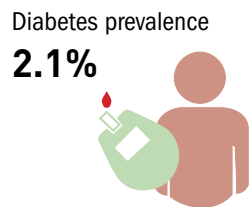
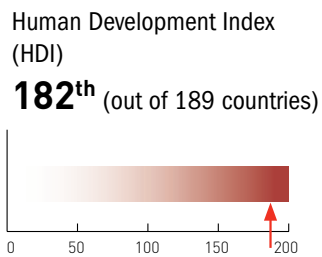
Burkina Faso is one of the countries where the density of health professionals is one of the lowest in the world with only 1 doctor and 5 nurses on average per 10,000 inhabitants. This shortage significantly limits the country's ability to provide its population with sufficient and equitable health services, with treatment prices that are very high. The fight against NCDs - including diabetes - has become a priority with more than 30% of the adult population affected.

In Burkina Faso, the prevalence of diabetes has long been estimated in the absence of reliable statistics on the extent of the disease in the general population.

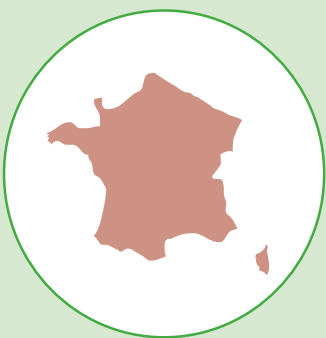
According to figures from the latest Diabetes Atlas, Burkina Faso remains strongly affected with:

- A comparative prevalence of diabetes in adults (20-79, age-adjusted): 2.1%
- A prevalence of T1D in children and adolescents (0-19 years): 1.27 / 100,000
- Prevalence of risk factors:
 - Overweight in adults over 25: 23.2%
 - Obesity in adults over 30: 5.6%
 - Insufficient physical activity: 20.3%

KEY FIGURES: BURKINA FASO



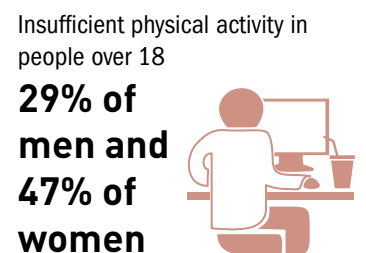
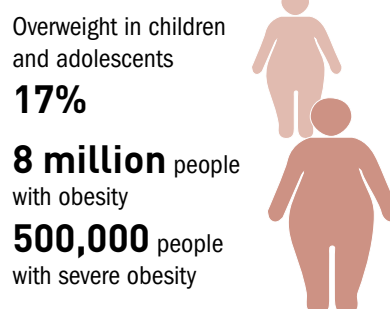
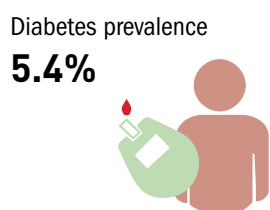
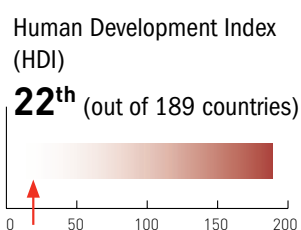
FRANCE



Diabetes currently affects 4 million French people, a figure multiplied by 6 in barely 30 years, representing 8.6% of the population. 90% have type 2 diabetes and nearly 700,000 people with diabetes are unaware of it. The causes of this increase are directly linked to changes in lifestyles in high-income countries and to the combination of both social and environmental factors: overweight, obesity, lack of physical activity, sedentary lifestyle. Diabetes also strikes the most socially vulnerable, with, for example, much higher prevalence rates in the most disadvantaged cities throughout the country.

While the health challenges that the developing world increasingly facing echoes those existing in the West (migration, social inequalities and impact on health, etc.), our challenge is twofold: to create a dynamic aimed at broadening our preventive actions in order to reach new audiences (unaccompanied foreign minors, company employees, etc.) and develop new South-North synergies in connection with our programs in Africa (adaptation of tools for France, etc.).

KEY FIGURES: FRANCE



2021 PROJECTS

« RÉSEAUDIAB » PROJECT



The « RéseauDiab » project is conducted in Burkina Faso, the Union of the Comoros and Mali over the period 2020 – 2023 which is a continuation of the programs developed in the 3 countries in close partnership with the Ministries of health, medical specialists, patient associations and national NGOs. It is co-funded by the French Development Agency (AFD), by the World Diabetes Foundation (WDF), the Helmsley Charitable Trust, LFAC, the City of Grenoble, the Auvergne Rhône Alpes Region.

This very ambitious new project places the strengthening of civil society organizations and the health system at the center of its objectives. Support for civil society notably involves the structuring of a diabetes prevention center in each

country of intervention, in conjunction with the Ministries of Health, patient associations and Santé Diabète. This new project allows the reinforcement of prevention, care and support actions for people with diabetes and people with risk factors related to this disease. This expertise developed in the south also feeds capitalization, advocacy and ECSI actions in the north by developing major south-south and south-north networks.

This project is based on three pillars: building the capacity of actors in the countries of intervention, contributing to the establishment of a network of intercountry actors to carry out cross-cutting actions in particular, and structuring the governance of the NGO Health Diabetes.

THE DIABETES/HIV/TUBERCULOSIS COMORBIDITIES PROJECT



Improve the skills of workers involved in health in the prevention and joint management of Diabetes/Tuberculosis and Diabetes/HIV in Burkina Faso and Mali.



People with HIV and tuberculosis are particularly vulnerable to diabetes, a scourge that is spreading in Africa. A significant proportion of these patients have Diabetes/HIV and Diabetes/TB comorbidities, which is why a specific approach must be put in place. For diabetes and tuberculosis, we speak of a “co-epidemic”, for diabetes and HIV, we emphasize the close link between lipodystrophy and insulin resistance.

An integrated approach is therefore critical. This is what Santé Diabète initiated during a first project aimed at improving the skills of personnel involved in health, in the prevention and joint management of Diabetes / Tuberculosis and Diabetes / HIV in Burkina Faso and Mali funded by L'Initiative and implemented in Mali and Burkina Faso between March 2017 and June 2021. A second phase of the project extends until 2024 and will also covers the Union of the Comoros.

I. OUR PREVENTION ACTIONS

LAUNCH OF PREVENTION HOUSES

The new 2020-2023 Program Agreement (CP) funded by the French Development Agency (AFD) plans the launch of diabetes prevention houses/centers in Mali, Burkina Faso and the Union of the Comoros. This innovative instrument aims to support activities for the prevention of diabetes risk factors and the care of people with diabetes, by developing a synergy of action between the various actors. Their implementation aims to strengthen the quality of actions and to offer civil society organizations better visibility in the field of the fight against diabetes. These houses respond to strong expectations expressed by patient associations, in order to meet certain unmet needs for populations and for patients with diabetes, such as: access to information on healthy eating and culinary practices, psychological and social support.

These houses are co-managed in partnership with:

- the NGO Walé and the National Federation of Diabetics from Mali
- the association Diabète laissez-moi vivre (ADLMV) in Burkina Faso
- the Comorian association for the fight against diabetes (ACLD) in the Union of the Comoros

In 2021, Santé Diabète and its partner associations continued the process of creating prevention houses in the three countries, following several stages: setting up infrastructure and providing equipment, then recruiting adequate human resources to carrying out activities (prevention, education, institutional development, etc.).

Prevention actions are carried out inside and outside the walls (in the community, in prenatal consultations, etc.) through peer educators (PPE).

In Mali, the offices of patient associations in the 4 regions of Timbuktu, Kayes, Ségou and Sikasso serve as the embryo of local prevention houses to carry out initial actions with regional peer educators. They allow better decentralization of the prevention offer across the country. In Burkina Faso and the Union of the Comoros, there are no prevention houses in the regions but only peer educators from local associations who have been trained to carry out community prevention actions outside the walls of the house.

On June 21, 2021, we organized a multi-actor workshop bringing together our Mali, Burkina Faso and Comoros teams, those of the NGO Walé, partner patient associations to prepare the teams for the training of peer educators, the opening and actions of houses for the prevention of diabetes and diabetes / HIV and diabetes / TB comorbidities in the 3 countries.



Production of prevention tools

In mid-July 2021, Dr Lefebvre, from the University Hospital of La Réunion, supported our Mali teams in the development of prevention tools that will be used by peer educators. These tools, initially developed in Mali, have been adapted in Burkina Faso and the Union of the Comoros. These final adaptation and validation phases were carried out after a pre-test phase in the 3 countries. Once the validation was carried out, the tools were printed for the realization of the activities inside the walls and outside the walls of the houses.

Training of peer educators

In 2021, in Mali, Burkina Faso and Comoros, we respectively trained: 25, 23 and 21 PEPs. These trainings were held:

- in Mali: the week of July 13, jointly with the NGO Walé and the Federation of Diabetics of Mali;
- in Burkina Faso: the week of September 16;
- in the Union of the Comoros: the week of October 1, 2021.

After each training, the animation tools were given to each PPE to allow them to train and revise individually in order to prepare for the test animations. One month after the training, test were conducted in the prevention houses of each country and consisted for each PPE to conduct, using the tools, an awareness session with the supervision team (Prevention House and Santé Diabète teams), which had to evaluate and rate the PPE on its mastery of the tool and its animation techniques, based on a pre-designed evaluation grid. At the end of the test animations, the PPE having obtained the highest scores were selected for awareness-raising actions:

- **20 PPEs** in Mali,
- **18** in Burkina Faso
- and **16** in Comoros.

Animations carried out by peer educators

In the 3 countries, and in the different areas of intervention, once the training of peer educators was completed, prevention actions were able to start inside and outside the walls of the houses.

Main results 2021 :

BURKINA FASO :

The PEs have carried out within the walls of the prevention houses:

14 events that reached
76 people in Ouagadougou

PEs have achieved in the community:

84 animations that reached
1140 people in Ouagadougou
144 events that reached **1671** people in the 6 other regions

The PEs carried out in the Pre Natal Consultations (CPN):

58 events that reached **859** people in Ouagadougou



COMOROS :

The PEs have carried out within the walls of the prevention houses:

27 events that reached
78 people in Moroni

The PEs carried out **8** activities in the community which reached **99** people:

3 events in Moroni
2 activities in Anjouan
3 events in Mohéli



MALI :

The PEs have carried out within the walls of the prevention houses:

13 events that reached
32 people in Bamako
6 events that reached
17 people in Sikasso
23 events that reached
216 people in Ségou
17 events that reached
242 people in Tombouctou
4 events that reached **38** people in Kayes



PEs have achieved in the community:

23 events that reached **274** people in Bamako
7 events that reached **98** people in Sikasso
2 events that reached **47** people in Ségou
5 events that reached **80** people in Tombouctou
1 events that reached **12** people in Kayes

The PEs have carried out with the community in the health structures:

35 events that reached **483** people in Ségou
6 events that reached **157** people in Tombouctou
6 events that reached **137** people in Kayes

The PEs carried out in the Pre Natal Consultations (CPN):

82 events that reached **1842** people in Bamako

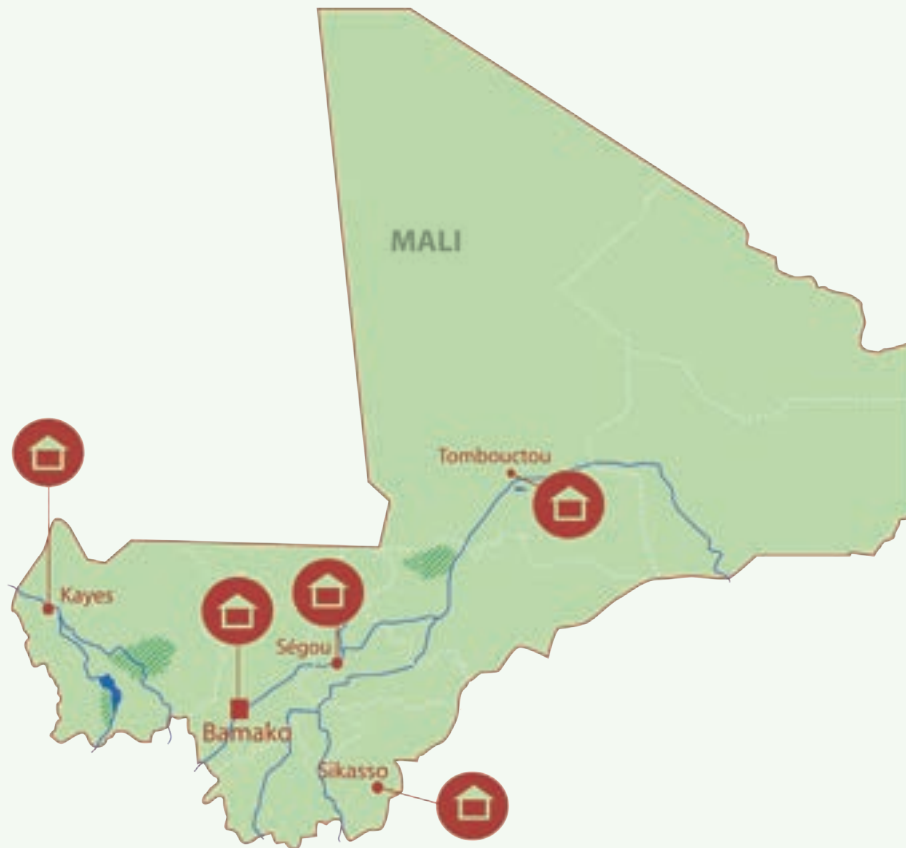


FOCUS: REGIONAL PREVENTION HOUSES IN MALI

The regional prevention houses have been set up thanks to the work conducted by the member associations of FeNaDiM in the regions of Kayes, Sikasso, Timbuktu and Ségou.



Maison
de la prévention du diabète



MARIAM MANGANE

Married, mother of three children, resident of Djelibougou, Bamako

« Before my first visit at the prevention house, I did not know that I had diabetes. But my husband, who had already been made aware of the risk factors for diabetes during community events, contacted the coordinator of the Maison de la Prévention to set up an appointment for me, which he got the next day. At the time of this first visit, the coordinator screened me and the result was 3.72g/dl on an empty stomach. She then referred me to a specialist. From now on, I am under treatment thanks to the Maison de la Prévention and I am trying to raise awareness among my family and loved ones in order to prevent type 2 diabetes. »

WORLD DIABETES DAY (WDD)

The World Diabetes Day was held on November 14, 2021 in the three countries, around the theme «Access to care to treat diabetes» and was an opportunity for Santé Diabète to organize various preventive and awareness actions, especially in the national media.



Burkina Faso

In Burkina Faso, on November 11, jointly with the authorities, Santé Diabète carried out various actions, including diabetes screenings and prevention sessions with peer educators. 11 radios covered the press conference in Ouagadougou and 3 radios in Bobo-Dioulasso including the National Radio-television of Burkina. 4 private television stations, 6 newspapers, 4 online media, 8 prevention radio programs were produced and broadcasted [22 reruns]. A press conference was held on December 6, 2021 at the CHU Yalgado Ouédraogo. The launch ceremony initiated with a free diabetes and hypertension screening campaign. On November 16, 2021, the public conference: "The management of diabetes in Burkina Faso" took place at the National School of Public Health in Bobo-Dioulasso. Screening continued in other regions. In total, 20 screening days were carried out during WDD and 30 around it.

Mali

In Mali, on November 13, in the physical presence of the Minister of Health, Santé Diabète launched WDD 2021 with a ceremony at the Mali Hospital followed by free diabetes screenings and prevention sessions led by educational peers from patient organizations.

TV trailers and a radio program in Bambara and French were produced by the National Center for Health Information, Education and Communication (CNI ECS), then broadcasted by ORTM on 12 and 13 November [4 days with 2 broadcasts per day for the radio micro-program and 3 broadcasts of the TV trailer]. A press conference was held on November 11, 2021 at the Directorate General for Health. The communication ended with a speech by the Minister, on November 13, on the 8 p.m. television news. Following this day, 36 screening days were organized in the 6 communes of the district of Bamako and in the different regions of Mali.

Union of the Comoros

In the Union of the Comoros, on November 14, a launching ceremony was held in the presence of the Minister of Health, at the School of Medicine and Public Health (EMSP). 2,000 posters and 500 leaflets were distributed to raise public awareness. The TV trailer and the radio micro-program were broadcasted on the national television ORTC. A program on diabetes, its risk factors, complications and access to care, took place on national television on November 12, and two conference debates, on November 14 and 15, respectively at Salimani Itsandra and ENFAG Voidjou. Following these launch ceremonies, 12 screening days (7 in Grande Comore, 3 in Anjouan and 2 in Mohéli) were organised.



FOCUS SCREENINGS IN 2021

In Burkina Faso

Number of diabetes and hypertension screening days carried out: **71**, including 30 on the sidelines of the WDD
Results: **6459** people screened

In the Comoros

Number of diabetes and hypertension screening days carried out: **100**, including 12 on the sidelines of the WDD
Results: **4560** people screened

In Mali

Number of diabetes and hypertension screening days carried out: **72**, including 12 on the sidelines of the WDD
Results: **8125** people screened

Main results of WDD 2021:

- **3** launch ceremonies
- **3** press conferences
- **3** conferences and public debates
- Launch of free screening campaigns for diabetes and hypertension
- During and around WDD, production of **87** prevention press releases in Burkina Faso, **54** press releases in Mali and **110** press releases in the Union of the Comoros

JOURNALISTS' NETWORK

This activity consists of strengthening the role of the local media in order to develop knowledge about diabetes, its risk factors and its complications.

From September 1 to 3, 2021, a training was held in Mali for 25 journalists from the national press of Mali (print, television, radio) with the aim of creating a network of journalists knowledgeable and committed to the diabetes issue. This training was carried out by a pair of international and national journalists: Stéphanie Gardier and Filifing Diakité. A similar training was carried out by Stéphanie Gardier in Burkina Faso from September 1 to 3, 2021, then in the Comoros from October 5 to 8, 2021. Following the training, groups on whatsapp were created allowing journalists to exchange continuously on the subject of diabetes and on various opportunities for coverage of the subject in various national media.

In Mali: between September 2021 and December 2021, 16 productions were released by journalists, in the various media

In Burkina Faso: between September and November 2021, 15 productions were released by journalists in online media, 4 written media and 9 radio broadcasts

In the Comoros: between November 2021 and December 2021, 13 productions were released by journalists in the various national and local media

DIABETES PREVENTION IN SCHOOLS

Actions in schools in Mali:

Two separate training courses made it possible to train, in the regions and districts of Bamako, Koulikoro, Sikasso, Mopti, Timbuktu: **78 people**

28 teachers, 10 CAP managers, 10 school principals and 28 PE facilitators from patient associations and 2 managers from the Bamako prevention centre. Following these training sessions, 84 activities were carried out in 28 classes (2 in Kayes, 2 in Ségou and 20 in Bamako, 2 in Timbuktu, 2 in Sikasso) and reached **1,296 students**.

Actions in schools in the Union of the Comoros:

Three separate training courses, on the three islands, made it possible to train: **29 people**

10 teachers, 9 school directors and 10 PE animators from the ACLD association in Grande-Comores; 18 people: 6 teachers, 6 school directors and 6 PE animators from the Narienshi association and the Maison Médicale d'Anjouan; 12 people: 4 teachers, 4 school directors and 4 PE leaders from the MDM association in Mohéli. 60 activities were carried out in 20 classes on the 3 islands (10 classes in Moroni, 6 classes in Anjouan and 4 classes in Mohéli) which reached **631 students**.

Actions in schools in Burkina Faso:

Three separate training sessions, in the Center (Ouagadougou), Center-West (Koudougou), Central Plateau (Ziniaré), Center-East (Tenkodogo), Center-South (Manga) regions, made it possible to train: **120 people**

59 teachers, 42 school directors and 19 PE facilitators from patient associations. 126 activities were carried out in 42 schools (20 in Ouagadougou, 10 in Bobo-Dioulasso and two schools in each of the six other regions Tenkodogo, Manga, Ziniaré, Koudougou, Banfora and Gaoua) which made it possible to reach **3390 pupils**.

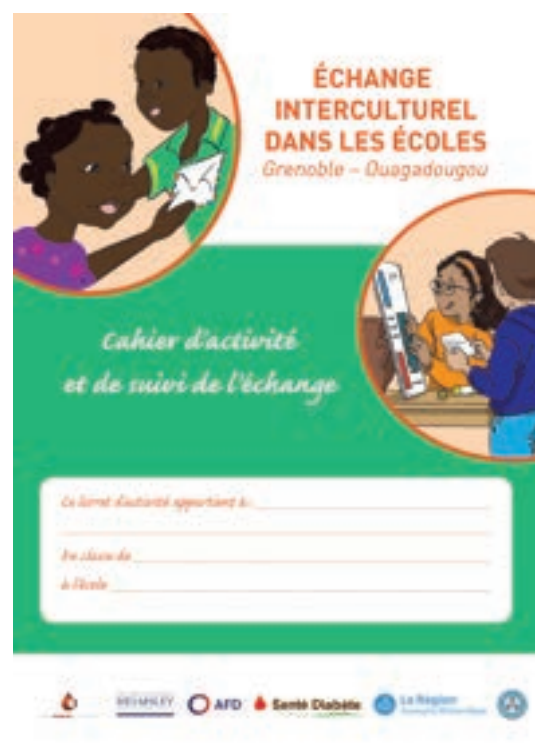


INTERCULTURAL EXCHANGE ACTIVITIES IN SCHOOLS

Actions within schools of Ouagadougou and Grenoble

Until March 2021, actions to prevent diabetes risk factors were carried out between students from schools in Grenoble and Ouagadougou. The exchanges took place between a class from the Paul Bert school in Grenoble (30 students, two teachers, two AESH, supporting students with disabilities) and a class from the Cité de l'Avenir school in Ouagadougou (January-May 2021). It also took place between a class from Alphonse Daudet school (16 students, one teacher), a class from Christophe Turc school (22 students, one teacher) and a class from Goughin Nord C school in Ouagadougou (March-June 2021).

Thus, in the first semester of 2021, **68 students** were involved in this exchange. The restitution of diabetes prevention actions between the students of the Daudet school in Grenoble and the students of the classes of Ouagadougou took place on June 28. On July 7, intercultural exchanges between the Christophe Turc school in Grenoble and the schools of Ouagadougou took place, during an afternoon with an analysis of the prevention sessions, with the Tétraktys association and the Ouedmed Danse company.



FRANCE: PREVENTION ACTIONS FOR TARGET POPULATIONS

Actions for adults in professional integration: on July 10, using our prevention tools developed in the global south, as well as those in France, we led a training session with the Verneil Foundation on diabetes, its risk factors and prevention, based on workshops on food and nutrition and diabetes (knowledge about sugars, fats, etc.) for adults in the process of professional integration. On July 16, Santé Diabète took part, at the Maison de l'International of Grenoble, to the City of Grenoble / City of Ouagadougou, cooperation committee alongside the Deputy Mayor of the City Emmanuel Carroz and in the presence of about fifteen associations involved in various and numerous international solidarity projects.

Actions with precarious populations : on November 4, with *L'Échoppe* and the center *Santé précarité* (health precariousness) of the city of Grenoble, Santé Diabète trained volunteers of *L'Échoppe* and city nurses, and carried out diabetes prevention actions (risk factors, prevention) for people benefiting from food distributions. In addition, a food, health and environment day was organized with two classes from a secondary school from Grenoble: in the morning, visit of an agroecological farm of Plantzydon with our partners from *Au Local* followed by workshops and tasting. In the afternoon, cooking workshop with our partners *Les Mijotées*.



STRENGTHENING OF CIVIL SOCIETY ORGANIZATIONS ON PREVENTION



In order to strengthen our partner associations in their structuring and in their prevention actions, we have provided them with specific support.

Mali :

- From June 21 to 25, we organized the training of 30 people from member associations Fenadim in Bamako, Sikasso, Kayes, Ségou and Timbuktu; teams from the prevention houses and regional association focal points in order for them to be able to carry out the prevention and education actions that these structures will run.

Burkina Faso :

- Held from June 21 to 25, the training of 17 people from partner associations of the city of Ouagadougou (teams from the prevention house and from the association, etc.) for them to carry out the prevention and education actions that these structures will run.
- In addition, on the same theme, one-day regional training sessions were carried out for our local partner associations, between November and December: in Bobo-Dioulasso (7 participants), in Banfora (6 participants), in Gaoua (6 participants), in Manga (6 participants), in Koudougou (8 participants) and in Tenkodogo (7 participants).

Comores :

- In November and December, we organized the training of 35 people from partner associations of the 3 islands, 12 in Anjouan (November 22) and 11 in Mohéli (November 29), 12 participants in Grande Comore (December 02), benefited from this training for them to be able to carry out the prevention and education actions that these structures will run.



FOCUS: STRENGTHENING OF PATIENT ASSOCIATIONS

Strengthening in administrative and financial management

In order to strengthen our partner associations in their structuring to potentiate their activity management capacities, we provided them with additional training on their administrative and financial management. In the 3 countries, these trainings were carried out together with the NGO Walé. These actions aimed to support CSOs in the various countries.

Mali :

- From November 1 to 4, 2021, in Bamako, in partnership with the NGO Walé, we trained the National Federation of Diabetics of Mali (Fenadim) and its member associations in administrative management and finance of associations. We trained 14 people (4 members of Fenadim, 2 members of the associations of Kayes, Sikasso, Timbuktu and Ségou and 2 members of the Walé NGO).

In Burkina Faso and in the Comoros, similar training will be held in 2022.

2. OUR ACTIONS TO STRENGTHEN THE ACCESS TO CARE



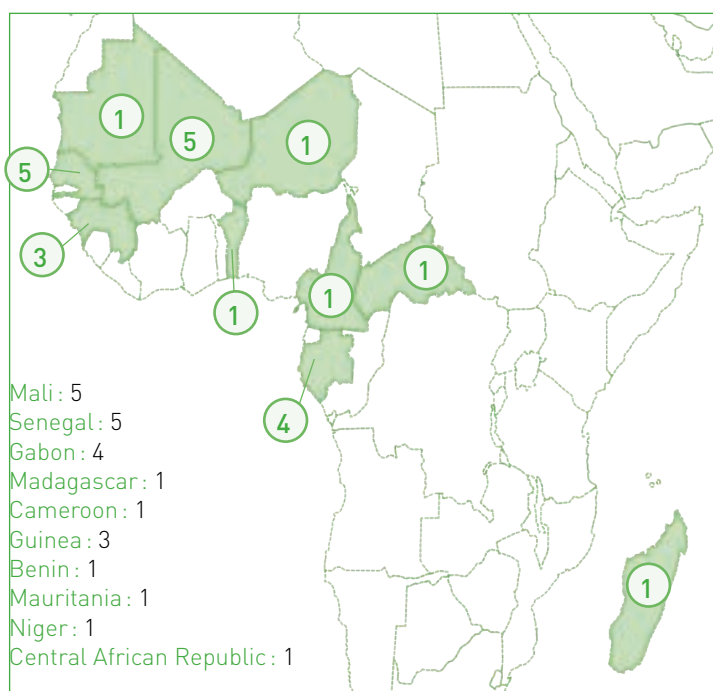
The fight against diabetes at the global level and particularly in Africa suffers from the weakness of health systems and the lack of training of health professionals in the specificities of diabetes and its comorbidities. This is why Santé Diabète carries out actions aiming to strengthen health systems and to train health professionals.

DEGREE TRAINING: D.E.S IN ENDOCRINOLOGY AND DIABETOLOGY

Two teaching seminars were held from May to September 2021. The end-of-year exams took place from October 25 to 28, 2021 in Bamako. They consisted of a written test carried out at the FMOS (Faculty of Medicine and Odonstomatology) from October 25 to 28, 2021 at the Endocrinology department of the Mali Hospital. The tests took place under the supervision of teachers from the endocrinology departments of Bamako, Dakar, Conakry and Gabon, internal medicine from Bamako and Ouagadougou and cardiology from Bamako.

23 students who had benefited from two seminars took the end-of-year exam. These were DES (Level 2nd to 4th years DES in Endocrinology).

These 23 students were distributed as follows:



23 DES students (3 DES4, 17 DES3, 3 DES2) were trained. The 3 DES 4th with the validation of their last year, validated their diplomas (2 new graduates from Gabon and 1 from Niger).

TRAINING OF 3RD REFERENCE PROFESSIONALS (NATIONAL HOSPITALS)

On June 30, we supported post-graduate education (EPU) in Bamako conducted by the Malian Society of Endocrinology and Diabetology (Somed). A day of discussion and work was dedicated to the theme of "diabetes and infection" with a major focus on Diabetes and COVID-19. In the Comoros, we organized a training course for 25 health professionals (15 doctors and 10 nurses IDE) from September 27 to 30 in partnership with the Comoros Ministry of Health and Dr Le Moullec, endocrinologist at the University Hospital of La Réunion, with the aim of strengthening the skills of health professionals working in the 3rd referral structures of the 3 islands of the Comoros on the management of diabetes.

TRAINING OF SECOND REFERENCE PROFESSIONALS (HOSPITALS AND REGIONAL HEALTH CENTERS)

The week of June 16, with the Ministry of Health and the Malian Society of Endocrinology and Diabetology, we strengthened the clinical skills of the 32 pairs of diabetes referent doctors and nurses in Bamako and the different regions of Mali. These professionals take care of more than 20 000 patients in the field.

Diabetes training: with Dr Anssoufouddine (NCD focal point at the Comoros Ministry of Health) and Dr Nathalie Le Moullec (endocrinologist at la Réunion University Hospital), we trained health professionals working in 2nd referral structures in the 3 Comoros Islands. The training reached 32 health professionals including 15 doctors, 14 nurses and 3 midwives.



FOCUS: TRAINING OF HEALTHCARE PROFESSIONALS FOR THE MANAGEMENT OF TYPE 1 DIABETES AND THERAPEUTIC EDUCATION OF PATIENTS T1D

In order to strengthen the care and therapeutic education of children and young adults with type 1 diabetes (0-25 years) in Mali and the training of diabetes referent doctors on the care of type 1 diabetes, many activities were carried out.

In Mali, from March 23 to 26, 2021, a training session was held for 11 diabetes referent doctors caring for children and young adults with type 1 diabetes. They were then able to put into practice the knowledge acquired during the two days education course. The first day brought together **20 adolescents** with T1D and the second day **20 children** with their parents. This work was carried out in close partnership with the teams from the Mali Hospital and the Geneva University Hospitals (HUG), from which two representatives were in Bamako.



The week of June 11 to 27, we conducted, with the Ministry of Health and medical specialists, training for pediatricians on the management of type 1 diabetes. It included a practical internship at the Hospital of Mali for 10 pediatricians from the capital Bamako and from 5 regions of the country on the management of diabetes in children and adolescents (type 1 diabetes).

In November, Dr Togo, responsible for type 1 diabetes care in Mali, received the therapeutic education diploma from Geneva Hospitals, which was aiming to strengthen his skills and education for the care of children and young adults with type 1 diabetes in Mali.

On July 18 and 19, with the support of Dr Lefebvre, the University Hospital of La Réunion and Dr Togo, we organized a two day workshop of therapeutic education for **40 adolescents** and **20 children** with type 1 diabetes and their parents.

In Mali, 2 education days were organized on December 4 and 5, 2021. They involved **40 adolescents** with T1D over the age of 15 and **20 children** under the age of 15 with their parents.



In the Union of the Comoros, in November, with Dr Laure Houdon (pediatric endocrinologist at the University Hospital of La Réunion), we trained pediatricians for them to be able to provide care for T1D in preparation for the implementation of the Life For A Child program (LFAC) in the country. This training made it possible to reach: **12 trained health professionals**, distributed as follows: Grande-Comore: **3 pediatricians, 2 nurses** and **1 general practitioner**, Anjouan: **2 pediatricians** and **2 nurses** and Moheli: **1 doctor** and **1 nurse**.



NUTRITION / DIABETES TRAINING

While nutrition is key to diabetes management and as diabetes is on the rise in Africa, nutrition resources are often insufficient and scattered and many are not available in French. Nutritionist-dieticians are still rare in several French-speaking African countries, doctors and other health professionals must have a minimum of knowledge and have tools to help patients manage their diet plan. Thus, a French-speaking consortium composed of the University of Montreal, the Free University of Brussels, the University of Geneva, the Faculty of Medicine of Bamako and Santé Diabète has developed an intensive online course of 23 modules <https://g3nutrition-diabete.org/site/>.

This intensive course is intended for all students of the *DES diploma* in endocrinology and the *DU diploma* in diabetology. In Mali: to all specialists in endocrinology and diabetology already trained, to all referring physicians and paramedics in continuing education at tertiary and secondary level. In the Comoros: to all doctors and paramedics in continuing education at tertiary and secondary level.

This program has been developed around several principles:

- Diet is at the heart of diabetes management
- Healthy eating for the whole population also applies to diabetes
- It is possible to have a healthy diet that fits with the local ecosystem and local food traditions
- What is recommended for the treatment of diabetes is valid for its prevention as well as for the prevention and management of other non-communicable diseases

This course can be completed online or downloaded and completed offline. In 2021, it was distributed, on a USB key, to health professionals in Mali and the Comoros and they were registered on the site <https://g3nutritiondiabete.org/site/>.

In Mali: 65 health professionals enrolled in the intensive nutrition course:

- **27** doctors, including **25** diabetes referent doctors
- **28** nurses, including **27** diabetes referent nurses
- **10** doctor students in endocrinology

In the Comoros: 68 health professionals registered:

- **36** doctors
- **30** nurses
- **2** midwives

Some of the students finalized the course at the end of 2021 and completed the online assessment. The other students will complete this assessment in 2022.

E-TRAINING

After several supervisions and mentoring with referring physicians, it must be recognized that there are still shortcomings both in theoretical knowledge of diabetes, practices and also in mastering the handling of patient care equipment (blood glucose meters, foot kit, HbA1c reader, etc.).

Facing these issues, Santé Diabète, jointly with Samed, has wished to continue building the capacities of health professionals by organizing continuing education sessions. The general objective of this new activity is to improve the management of patients with diabetes and diabetes/HIV-Diabetes/Tuberculosis comorbidities by strengthening the theoretical and practical skills of diabetes referring physicians and their nursing pairs by e-training.

For this, Dr. Nientao, endocrinologist, has developed 5 specific objectives:

- Reinforce the theoretical training of diabetes referent doctors and their nurses on the detection and management of diabetes, comorbidities associated with diabetes (HIV and tuberculosis) and their complications by carrying out continuing distance education courses led by doctors specialized in endocrinology and diabetes.
- Reinforce practical training and follow-up of diabetes consultations carried out by diabetes referral doctors and their nurses through the organization of demonstration teleconsultation sessions carried out by doctors specializing in Endocrinology and Diabetology.
- Provide remote support to improve the maintenance and handling of diabetes care equipment (glycemia readers, HbA1c reader, therapeutic education tools and foot kits).
- Reinforce early detection, referral and monitoring of diabetes/HIV and diabetes/TB comorbidities.
- Ensure direct targeted mentoring of referring physicians on the management of complicated cases of diabetes and cases of diabetes associated with HIV and/or tuberculosis.

The activity will start in February 2022 and is organized around 2 types of training: theoretical training and practical training. To achieve this, during the months of November 2021, December 2021, Santé Diabète purchased a professional *Zoom* account for the activity and equipped Dr. Nientao's consultation with a videoconference camera and a screen to ensure clinical cases and shared consultations.

PREVENTION AND MANAGEMENT OF DIABETES / HIV AND DIABETES / TB COMORBIDITIES

Prevention

From November 2021 to January 2022, a review of the image box was carried out for Burkina Faso and Mali. The editing was made and the final image boxes validated. In parallel, a complete adaptation work of these tools was carried out for the Comoros. The Comoros image box was then finalized and validated.

Training

Taking into account the expertise of Prof. Drabo's teams in Burkina Faso on the subject, the initial work was entrusted to this team from November 2021. The teams defined the educational objectives, programs and modules of training, for full implementation in early 2022.

In March 2022, the teams from Mali and the Comoros will start their work to review these programs and modules and adapt them to the local contexts. In the 3 countries, the first training sessions will take place in May 2022 (diabetes referral doctors, HIV focal points and TB focal points). This training will enable the analysis of the feedback on the training modules and the programs, as well as a final work on the modules, by the experts from the 3 countries, before validation by the ministries of health of each country.



FOCUS: CHAIR OF PHILOSOPHY AT THE HOSPITAL

With the chair of philosophy at the hospital, we have continued our activities aimed at developing, in Mali, a curriculum on the holistic approach to care in order to strengthen the relationship between health professionals and patients with diabetes. A 3-day intensive course was given in Bamako, by Professor Cynthia Fleury, from September 6 to 10, gathering 26 people, which focused on the humanities in health and the caregiver / patient relationship.



COMPUTERIZATION OF DATA, “DATAHUB” AND DATA OBSERVATORY

In Mali, a pilot trial has been set up to develop a system for reporting data from patients with diabetes through a platform developed by the company Africasys and Santé Diabète called “Santé Diabète Datahub”. This platform enables the storing as well as the representation of clinical data, and data related to the health system.

In practice, in 2021, Santé Diabète developed the data reporting system for the 3 countries for information related to the health system (where are the diabetes consultations, or and who are the trained health professionals, statistical data from diabetes consultations, etc.).

In addition, in 2021, in Mali, Santé Diabète progressed significantly on the complete computerization of the clinical data of patients with type 1 diabetes, which interfaces with the international *Sweet* program. Since 2015, Santé Diabète has enabled Mali to join the *Sweet* international program on type 1 diabetes data. Every 6 months, the *Sweet* database is updated with data transmitted by member countries, which enables the production of reports and publications. The database includes more than 30 countries from the 5 continents (Mali remains the only African country present in this database). This data computerization process for type 1 diabetes took place in several phases:

The data collection application has been finalized.

Substantive work was carried out on the *Excel* database of 950 children with T1D, allowing the data collected through the application to enrich the *Excel* file and also allowing export to *Sweet*. A QR code linked to the *Sweet* identifier has been created for patients who have already registered. For new children, new QR codes have been created automatically.

In parallel, tablets have been deployed in consultations at the Mali Hospital allowing direct data entry.

In June 2021, the first exports to *Sweet* took place. Computerization then continued in the regions and will be finalized in 2022.



Data analysis and correction modules will be implemented in the “data hub”. They will be developed during the next phase.

This computerization work to create the most comprehensive data observatory possible will continue in 2022.

3. STRENGTHENING NATIONAL POLICY FRAMEWORKS

Santé Diabète’s actions aim to strengthen national policy frameworks, in particular through the establishment of dialogue frameworks at country level. Meetings were held regularly with the health authorities, Santé Diabète and various other players with the aim of facilitating these exchanges.

In 2021, in Mali and the Comoros, Santé Diabète supported the Ministries of Health in the graphic layout of their policy documents for the national response against non-communicable diseases and their national strategies for the fight against diabetes. Once these documents were finalized, they were disseminated by the Ministries of Health.

4. STRENGTHENING NATIONAL FRAMEWORKS FOR DIALOGUE AND ACCESS TO MEDICINES



The sustainability of access to medicines is now a key issue in the fight against diabetes in our countries of intervention. In the 3 countries, Santé Diabète supports the setting up of a framework for dialogue bringing together all the players who have a role to play in ensuring financial and geographic accessibility of anti-diabetic treatments as well as medical devices (management Department of Health, Directorate of Pharmacy and Medicine, Central Purchasing Organizations, Social Protection Organizations, Patient Associations, Health Professional Associations, NGOs, etc.).

The dialogue frameworks met in Mali on July 23, 2021, in the Comoros in April and September, and in Burkina Faso on June 2.

- **In Mali:** the dialogue framework enabled the presentation of various data on the availability of antidiabetics but also their prices, and an exchange of views to improve their availability.
- **In Burkina Faso:** the work consisted in collecting a large amount of data on the availability and prices of drugs and health devices at the different levels of the health pyramid before a presentation during the second meeting of the framework for dialogue.

- **In the Comoros:** On April 23, 2021, during an important session of the dialogue framework on antidiabetic drugs co-led by the Ministry of Health and our NGO, was validated a large donation of antidiabetic drugs given to the government of the Comoros by Santé Diabète. Subsequently, teams from Santé Diabète and the Ministry traveled to the 3 islands and handed them over to the local authorities. These drugs represent an initial endowment that should enable the national purchasing center to better estimate their needs and initiate adequate resupply.

Several months of work brought together teams from the Ministry of Health and SD to define the distribution of allocations of oral antidiabetic drugs and insulin, the implementation of monitoring tools, support for restocking at the central purchasing. These regular meetings made it possible to monitor the supply of drugs and reagents in the country's health structures. The second meeting of the drug dialogue framework enabled to carry out a complete follow-up of these allocations and their use.

In addition, in Mali, several meetings were held with the People's Pharmacy of Mali (PPM) and Santé Diabète pharmacists. In Mali, on September 9 and 10, Dr Perrin (international expert pharmacist) led a dialogue workshop with the Ministry of Health and the People's Pharmacy of Mali on the supply chain of antidiabetic drugs with Pharmacists from the central and regional People's Pharmacy (PPM) of Mali, as well as hospital pharmacists from the different regions of Mali to better understand the problems around the distribution of anti-diabetic drugs and to prepare public contracts for the supply of anti-diabetic drugs.

5. PROJECT MONITORING PROCESS, STRUCTURING OF THE NGO AND ORGANIZATION CHART

PROJECT MONITORING PROCESS

In each country, after launch ceremonies, project monitoring committees were set up in 2021 and, annually, a steering committee. National dialogue frameworks are essential to ensure coordination and involvement of all partners in the fight against diabetes, and are structured in 3 stages: a national meeting to launch the project, the implementation setting up and holding a select committee to monitor actions each semester; setting up and holding an annual steering committee.

LAUNCH OF OUR THREE-YEAR PROGRAM

Official ceremonies to launch our 2020 – 2023 three-year program in the presence of all our partners (local authorities, patient associations, health professional associations, etc.) took place in Mali (July 28) in Burkina Faso (July 30) and in the Comoros (August 4, 2021). These meetings also enabled to hold the first national steering committees to carry out a follow-up with all the partners after a year of activities in the 3 countries. In Burkina Faso, it should be noted that the launch ceremony and the steering committee were chaired by the chief of staff of the President of the Republic.

The half-yearly monitoring committee meets every 6 months and brings together 15 people over the course of a day. The purpose of this committee is to review the operational status of the various activities carried out during the past quarter, to adapt the operational plan in relation to the level of progress of the activities and to define the activity scheduled for the following semester. They were held in Burkina Faso in the first quarter, in Comoros and Mali in April 2021.

The steering committee meets once a year and brings together 25 people in each country over the course of a day. The purpose of this committee is to present the progress of the activities and the good practices and obstacles related to the realization of the activities of the past year; validate the strategic and operational plans and the activity reports drawn up by the Monitoring Committee around activities to combat diabetes; present the progress of the countries involved in the program with a view to the inter-country dialogue framework and discuss its agenda; strengthen the capitalization of the activities and involvement of civil society in the fight against diabetes. These steering committees were held in Burkina Faso at the end of March and in Mali and the Comoros in May 2021.

These two committees also allow a close link between all the stakeholders in the fight against diabetes in each country while enabling the capitalization of all the activities undertaken and to centralize efforts for effective advocacy both at the national and international levels.

Inter-country dialogue framework

In order to pool good practices, discuss methodology and effectively capitalize on the involvement of civil society in

the fight against diabetes in Africa, the creation of an inter-country dialogue framework (Mali, Burkina Faso, France and Union of the Comoros) has been put in place. It meets once a year, after the holding of the National Steering Committees and constitutes a real platform for the actors involved in the fight against diabetes in these 4 countries and also strengthens capitalization and advocacy at the national, regional and international levels.

Internal structuring

In 2021, we continued our program agreement actions dedicated to strengthening the structure and governance of the NGO Santé Diabète.

This structuring involves 4 areas of work:

- **A collaborative space:** through the observatory of data allowing the processing of data but also the capitalization of methodologies, results and good practices.
- **Regular virtual meetings:** by linking the *Zoom* video conferencing tool to the platform, SD's monitoring and evaluation officer organize regular meetings with the various project managers and led monthly virtual meetings by theme between the teams of the various delegations. Follow-up meetings bringing together the executive team were also held to keep a close track of the progress of the various activities.
- **Inter-delegation exchange missions:** many activities gave the opportunity to organize a field exchange between the delegations to learn and discuss common activities carried out in the different countries.
- **Physical meetings between delegations:** in addition to the interactive online tools aimed at facilitating collaboration between the teams, Santé Diabète will organize in 2022, a meeting of the inter-delegation country dialogue framework of the NGO Santé Diabète. This workshop will aim to share methodologies, tools within each delegation but also to share the results obtained. It will also aim to work in synergy on strategies and actions for sharing, capitalization and advocacy.

Over the period, this also resulted in continued work on our gender strategy and our ethics charter, which will be published in 2022. Work on the procedure manuals continued.

Finally, this work to strengthen the structure of Santé Diabète also involved coordination meetings between the teams. On June 24, a coordination meeting was held between the RAFs of the various countries under the supervision of the DAF of Santé Diabète, as well as two inter-team meetings at the end of November in Paris and mid-December in Grenoble, on the strategy and monitoring and coordination of ongoing activities. The evolution of the organizational chart continued in the country delegations and at the level of the management pole.

We have also produced video trombinoscopes presenting all of the Santé Diabète teams.



STRENGTHENING THE NETWORK BETWEEN DIFFERENT PROJECT, STAKEHOLDERS & CROSS-CUTTING ACTIONS

The first cross-cutting actions (south-south and south-north) were carried out throughout the year, relating to capitalization, advocacy and Education for Citizenship and International Solidarity (ECSI) from methodologies developed and results obtained in different countries (Burkina Faso, France, Mali, Union of the Comoros). For this period, the work focused on the development of the *Data Observatory / Resource Centers*, the actions of *ECSI* in Grenoble and between the schools in Grenoble and Ouagadougou.

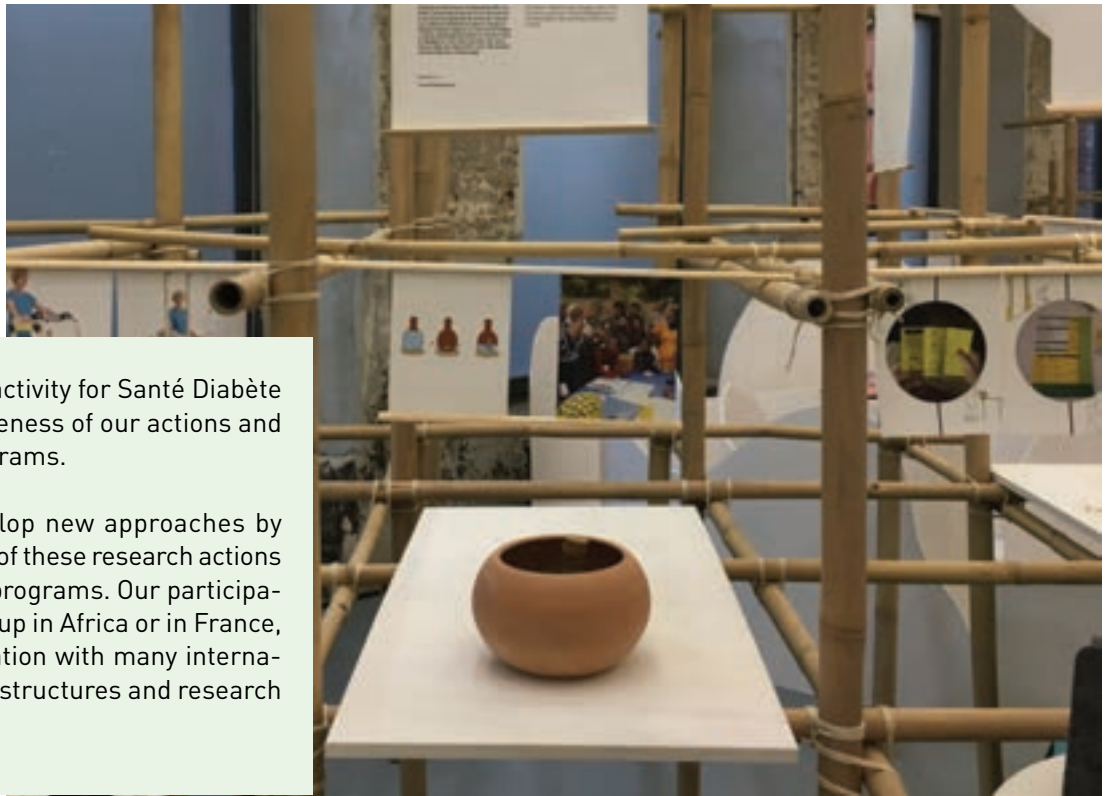
In addition, regular meetings of the management unit and monitoring of the timetable and the implementation of activities have been carried out.

STRENGTHENING THE NETWORK: INTERNATIONAL CONNECTIONS

In parallel with the work implemented around national, south-south and cross-cutting actions, various actions have been carried out at the international level, in particular advocacy actions, such as the work around the resolution on insulin, in June 2021, then the holding of a meeting of French-speaking experts in Grenoble in December 2021.



6. RESEARCH



Research is an essential activity for Santé Diabète as it improves the effectiveness of our actions and the evaluation of our programs.

It also allows us to develop new approaches by directly linking the results of these research actions with the implementation programs. Our participation in research work, set up in Africa or in France, is carried out in collaboration with many international universities, health structures and research centers.

CURRENT RESEARCH PROJECTS

ACCISS STUDY “ADDRESSING THE CHALLENGES AND CONSTRAINTS RELATED TO THE SOURCES OF INSULIN AND THEIR SUPPLY”*

The “Acciss” study is a multicenter study conducted jointly by Health Action International (HAI), the University of Geneva and Boston University, in the following countries: Mali, Tanzania, Peru and Kyrgyzstan.

The objective of the study is to improve access to insulin by analyzing the opportunities and constraints related to its availability, as well as all the medical devices necessary for the injection of insulin (syringes, readers and blood glucose strips...).

Activities to strengthen access continued. In parallel, a sub-study using a digital application was implemented in order to:

- Provide regular information on the availability and prices of insulin and diagnostic tools in Mali;
- Measure changes in availability and prices over time;

This activity uses a time-series model to collect data on the availability and prices of insulin and related supplies (syringes and blood glucose test strips) in health facilities (30 public pharmacies and 30 private pharmacies) and the homes of 240 patients with diabetes (120 type 1 and 120 type 2) in 6 regions of Mali: Sikasso, Kayes, Koulikoro, Ségou, Bougouni and the district of Bamako. The data is collected using survey instruments programmed on a smartphone (or tablet) for 12 months.

Several phases of the study were carried out:

- The recruitment phase
- The first and second data collection
- Field validation visits to validate the data
- The 2nd phase of data collection

The latest data will be collected in 2021. The analyzed results will be presented in the 2022 report.



To know more:

<http://haiweb.org/what-we-do/acciss-fact-sheets/>

* ACCISS study “addressing the challenge and constraints of insulin sources and supply”





HEALTH LITERACY STUDY

Diabetes is a chronic disease whose management includes the adoption of lifestyle and dietary measures, appropriate treatment and regular clinical and biological monitoring. The active participation of patients in the management of their disease, in particular through therapeutic education, is a key factor in the management of the disease. However, the management of diabetes is based on individual behaviors which are closely linked to a socio-cultural environment and to the socio-economic conditions of patients with diabetes. In this context, healthcare structures must adapt to the needs of patients with diabetes, particularly in terms of access to information and healthcare systems. Patients with diabetes therefore need to mobilize specific skills to interact with health systems.

This ability to “search for health information, make decisions, solve problems, think critically, and be able to communicate” fits the definition of health literacy (HL) precisely.

Many publications have shown that a low level of HL in patients with chronic diseases such as diabetes, cardiovascular disease or arthritis was associated with increased mortality and hospitalizations, decreased use of preventive health services, poor adherence to medication, difficulties in communicating with health professionals, low levels of knowledge of the disease and self-management of it.

The interest of meeting the needs of HL in patients with chronic diseases has been highlighted by numerous public health studies, in terms of individual and population benefits.

Thus, it has seemed essential to Santé Diabète to conduct a study to assess the level of HL of patients with diabetes in Mali and of health professionals. For this, we have called on long-standing partners, from the Reunion University Hospital (the team of Dr. Xavier Debussche, endocrinologist) and the University of Reunion (Dr Delphine Ballet). A research

protocol based on the OPHELIA approach (“OPTimising HEalth Lliteracy and Access to health information and services”), of the Australian team of Pr RH Osborne, which is today the world reference on the subject, has been developed and is being implemented on the ground.

The main elements resulting from the summary of the study show on the one hand the place of the doctor who remains by far the main referent in several areas:

- the referent in terms of management and follow-up of the disease: the doctor keeps his place of “social controller” or “moral entrepreneur”. We are witnessing a vertical relationship where patients generally follow the doctor’s recommendations “to the letter” on the different aspects of disease management (diet, physical activity, treatment and monitoring of the disease),
- the referent in terms of health information: patients trust their doctor, who remains their main source of health information.

On the other hand, the family and friendly entourage of patients is revealing of the African socio-cultural context. This aspect was underlined during the socio-cognitive validation of the HLQ questionnaire, where one of the patients felt that moral and/or financial support, in Africa, “is mandatory”. Moreover, “the sick person cannot be considered as being solely the bearer of a pathology: he is above all a social being, in dynamics and in perpetual interaction with other individuals from the family, the world of work or neighborhood, in specific geographical, cultural and economic environments”. The support is primarily moral and takes the form of help from the family with regard to food, treatment and attendance at consultations; then sometimes financial, with the purchase of medicines.”.

AGRISAN STUDY ON FOOD SUPPLY FOR URBAN POPULATIONS

The geographical location of Bamako, with the presence of the Niger River, allows the development of urban and peri-urban agriculture. This seems to play a very important role in the supply of foodstuffs for urban populations and to be also a source of employment. However, the real place of this agriculture in regards to the significant imports is poorly quantified and described. Both quantitatively and qualitatively, and in particular its contribution to dietary diversity, still remains to be defined. In addition, this urban agriculture faces several challenges, including land issues marked by strong urban pressure, environmental issues such as water pollution that require effective control to ensure healthy production for consumption. To be added to this: food and economic issues.

A better knowledge and understanding of the mechanisms of urban food would allow a better definition of public policies aimed at limiting the appearance of new public health problems such as Non-Communicable Diseases, but also at limiting the environmental impacts of a food supply unsuited to the urban specificity of the Sahel.

In this context, a study was developed and coordinated by the French Research and Development Institute (IRD). Santé Diabète participates in research through several components (1, 4 and 5). The objectives of the AgriSAN project are:

- To analyze the food supply in Bamako
- To carry out an inventory of urban agriculture and determine its real place in the overall food supply of Bamako: determine the different productions and their availability, the accessibility and the sanitary and nutritional quality of the productions.
- Provide technical services with detailed mapping of production areas.
- Assess the impacts that the practices of urban and peri-urban agriculture can have on the environment: water quality, uses and impacts of pesticides, health and nutritional quality, supply chain.
- Assess the health and nutritional status of households, with emphasis on NCD risk factors (glycaemia, overweight, food consumption, etc.)
- Assess the impact of changes in food consumption patterns on the health of the population and mainly on the emergence of NCDs.



RESEARCH AREAS

.....
Nutrition
.....

Reduction of diabetes risk factors
.....

New therapeutic approaches
.....

Access to treatments
.....

Therapeutic education
.....

Health information systems
.....

Economic impact of diabetes
.....

Traditional medicine
.....

Medical anthropology



7. «DIGITAL JOURNEY», INTERNATIONAL MISSIONS AND ADVOCACY

«DIGITAL JOURNEY»

In January 2022, Santé Diabète will launch its “digital journey”, the outcome of a collaboration with two partners: the French Development Agency (AFD) and the Chair of Philosophy at the GHU Paris Hospital-psychiatry and neurosciences. Ultimately, participants in the digital course are expected to include what they have learned in their professional sphere, in order to give a practical dimension and a real impact to this project. During 2021, all the preparatory work for the launch of the digital journey was put in place.

<https://parcoursdigital.org/>



INTERNATIONAL MISSION TO LA RÉUNION AND DJIBOUTI

The period from June to September also included a mission to La Réunion, in June, to ensure the coordination of our actions in the Union of the Comoros with the Franco-Comorian development plan (PDFC) and a mission to Djibouti (in September) to support the Ministry of Health of Djibouti in the fight against diabetes.

AFRICAN MEDICINES AGENCY

In November, a meeting was held bringing together Michel Sidibé, MSF, the University of Geneva, the WDF and the Helmsley Trust, with the aim of discussing the role that the African Medicines Agency (AMA) could play in access anti-diabetic treatments and diagnostic tools for diabetes.

IRIS SUP PROJECT

After the victory obtained for the centenary of the discovery of insulin with the adoption of a resolution at the World Health Assembly in May, ensuring that it is properly implemented is now the objective for Santé Diabète and its partners. The analysis of the methods for monitoring this implementation was the subject of a project with IRIS students.



8. ADVOCACY AND COMMUNICATION: MEETING OF FRANCOPHONE EXPERTS IN GRENOBLE



Santé Diabète organized on December 13 and 14, 2021 in Grenoble, a conference of French-speaking experts, under the sponsorship of Mr. Olivier Véran, Minister of Solidarity and Health.

This conference brought together more than 50 partners from 7 French-speaking countries (Burkina Faso, Mali, Union of the Comoros, Canada, France, Luxembourg and Switzerland) of Santé Diabète involved in the fight against diabetes: institutional partners, health professionals, researchers, patient associations, civil society structures and technical and financial partners.

The objective of this conference was to provide a space to address in depth the issues essential to the fight against diabetes and more broadly to the strengthening of health systems. It allowed us to question our practices, to compare different perspectives, points of view and experiences, the only way to move forward together to build the health and social protection systems that we want for tomorrow. Santé Diabète wished to hold this conference on these vital questions to conclude a year 2021.

The conference was opened by Mr. Éric Piolle, the mayor of the city of Grenoble, alongside Mr. Stéphane Besançon, general director of Santé Diabète. The opening continued with the opening remarks of Ms. Stéphanie Seydoux, French Ambassador for Global Health, Mr. Michel Sidibé, former Director of UNAIDS, former Minister of Health of Mali, and current Ambassador of the African Union for the creation of an African medicine agency, of Mr. Eric Fleutelot, director of the health department, major pandemics pole at L'Initiative/Expertise France.

Following this official opening, the program continued with 3 plenary conferences: with Mr. Slim Slama, representative of the non-communicable diseases department at the World Health Organization (WHO) who presented the Global Diabetes Compact, Dr. Michel Sidibe who presented the African Medicines Agency and Ms. Elsa Morandat, from the World Diabetes Foundation.

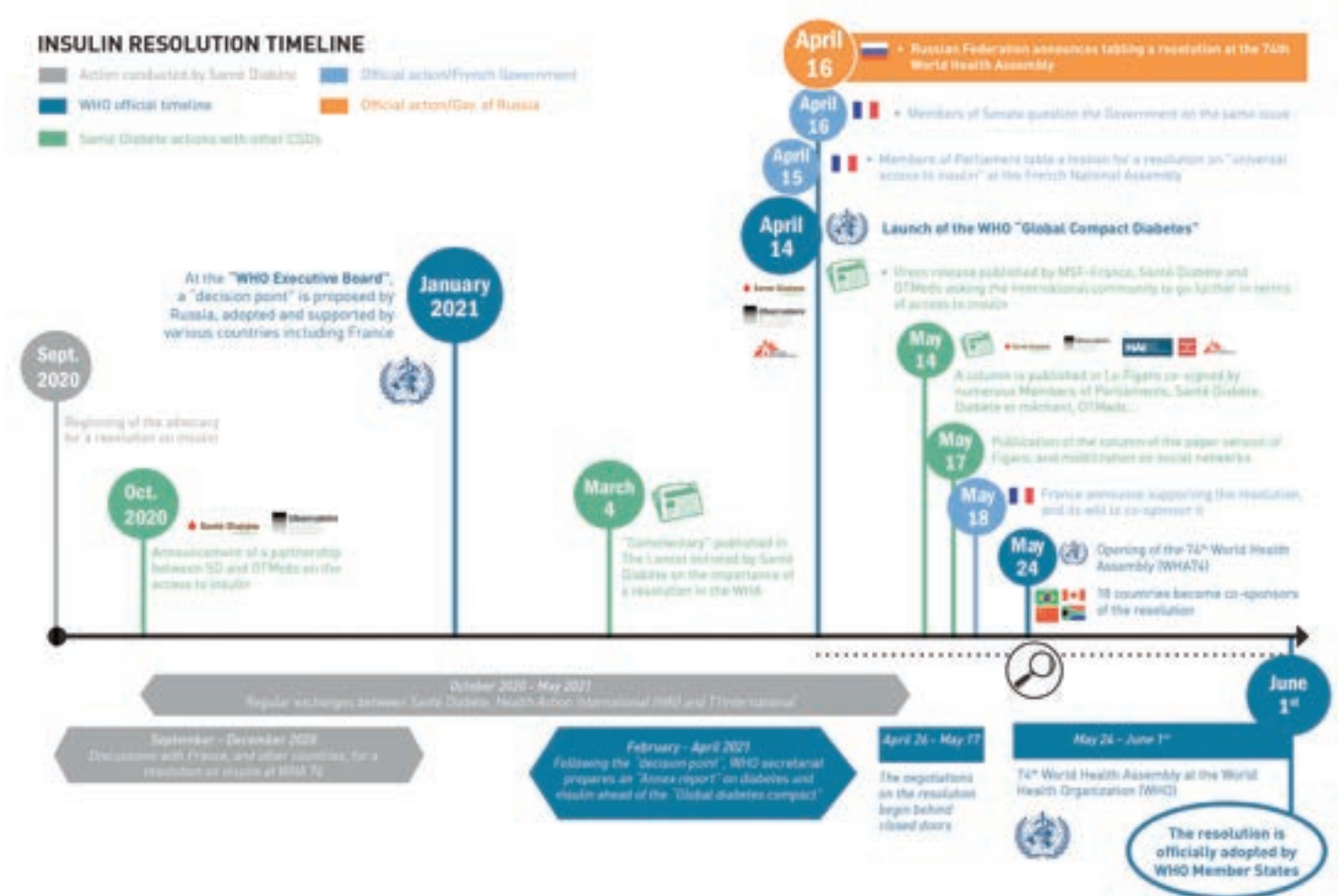


After this plenary opening, the conference continued with round tables of exchanges bringing together the various experts around five fundamental themes in the fight against diabetes:

- prevention of diabetes risk factors and therapeutic education of patients,
- diploma training and continuing education for health professionals,
- management of type 1 diabetes,
- access to treatments, particularly insulin and medical devices,
- the prevention of risk factors related to food targeting migrants and precarious populations.

During these round tables, recognized representatives of civil society from 7 French-speaking countries, representatives of the Ministries of Health of Mali, Burkina Faso, the Union of the Comoros and France, actors from the field, researchers, and technical and financial partners, had the opportunity to discuss new possible synergies to accelerate the fight against diabetes at local, regional and international levels, and the prospects for action.

9. ADVOCACY AND COMMUNICATION: MOBILIZATION FOR THE CENTENARY RESOLUTION ON INSULIN



The year 2021 marks the centenary of the discovery of insulin in 1921 at the University of Toronto in Canada. Insulin is a life-saving treatment for millions of people with diabetes around the world. This number is rising sharply and the need for human insulin will continue to increase in the coming years. Access to affordable treatments is therefore absolutely crucial for the survival of patients, but also a prerequisite for enabling developing countries in particular to define and deploy national strategies.

However, to date, access to these treatments is far from being a reality for everyone who need it. Global production capacities remain concentrated in the hands of three producers, Sanofi, Novo Nordisk and Eli Lilly, which prevents any competition and has repercussions on the supply and prices of insulin in developing countries, as well as in various rich countries such as the United States.

In Mali, the price of a vial of insulin is around 7 euros, while the minimum wage barely exceeds 50 euros. A study conducted in the country showed that a year's supply of insulin consumed more than 17% of a family's income.

These high prices represent a major barrier to access to this vital health product. This is all the more unacceptable since the production costs are estimated at less than 72 dollars per year and per person, and all the more paradoxical since the inventors of insulin, Doctors Frederick Banting and Charles Best, who had sold the patents for a symbolic dollar in 1923, believed that this discovery should first allow those who needed it to have access to it.

Currently, in addition to the price obstacle, there are other constraints for the care of patients in the field, such as availability of trained health professionals, the access to better monitoring tools (readers and blood glucose strips), administration tools (syringe, pens, etc.).

AN INTERNATIONAL MOBILIZATION

Since 2020, Santé Diabète has led jointly with other civil society organisations, an international campaign aiming to ensure that on the occasion of the centenary of insulin, a specific resolution on this subject will be carried by the States members of the World Health Organization (WHO) at the 74th World Health Assembly 2021. The aim of such a resolution is for the international community to recognize the barriers to access to insulin, 100 years after its discovery, and is stepping up efforts to improve access. The solutions include greater transparency on the prices charged from one country to another by the three multinationals sharing the world market (Eli Lilly, Novo Nordisk and Sanofi), greater production of biosimilars, in particular biosimilars pre-qualified by the World Health Organization (WHO) or approved by country's drug agencies.

Alongside the MSF Access campaign, Health Action International (HAI), T1 International and the Observatory of Transparency in Medicines Policies (OTMeds), Santé Diabète campaigned from September 2020 for Member States of the World Health Organization to table a proposal of resolution on access to insulin during the WHO executive board (EB) which was held from January 18 to 26, 2021. Santé Diabète carried out an important advocacy work with the French government for France to carry this proposal for a resolution at the WHO EB.

Unfortunately, because of the pressure from many European countries and the United States, no proposal was tabled during this executive board. However, Russia has tabled a "decision point". This point was supported by various countries including France and adopted in January 2021.

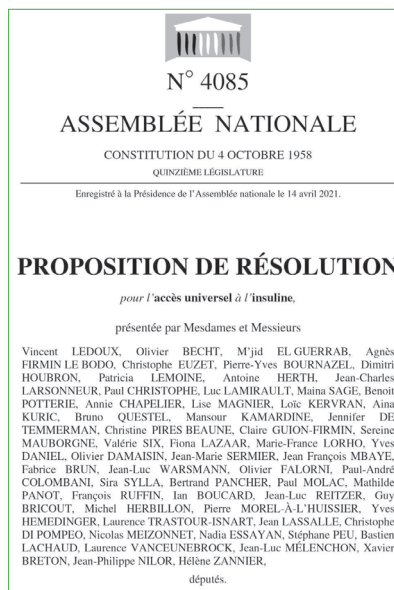
This formal decision by the WHO Executive Committee paved the way for the Russian Federation to table a resolution on diabetes and NCDs including the issue of access to insulin.

To support this approach, in February 2021, Santé Diabète initiated a comment published in *The Lancet*: considering that "not responding to the problems of access to insulin on the occasion of the centenary of the discovery of it would be an ethical and moral fault of the international community".

In parallel, the WHO launched the "Global Diabetes Compact" on April 14, 2021. Santé Diabète, MSF and OTMeds took advantage of the launch of this new WHO diabetes strategy to call on the international community to do more to respond to the international emergency on diabetes and access to insulin.

The draft resolution tabled by the Russian Federation was the subject of negotiations between the end of April and the middle of May. Santé Diabète, MSF Access campaign, Health Action International (HAI) and T1 International fought during these negotiations to obtain an ambitious resolution on the prevention and management of diabetes, access to insulin and transparency on insulin prices.

IN PARALLEL, A NATIONAL MOBILIZATION IN FRANCE



Following the press release from Santé Diabète with Médecins sans Frontière-France and OTMeds, on April 14, 2021, a group of members of the Parliament (MPs) mobilized and tabled a draft resolution in the National Assembly asking for the universal access to insulin.

This resolution, which had the support of 57 MPs from all political groups, recalls in particular that: "The World Health Organization

has launched a pilot program to prequalify human insulin in order to stimulate access to this drug» and calls on the French government to take action: «It therefore seems useful to invite the Government to support the initiatives of the World Health Organisation in this area» and invites in particular: «the Government to reinforce the initiatives of the World Health Organization by proposing an adequate system to ensure transparency on selling prices, the margins of intermediaries, and the real production costs, to rebalance the insulin market and allow universal access to these treatments; proposes that the Government support the increase in the number of companies producing quality insulin by supporting more strongly local production initiatives through the World Health Organization's prequalification program on human insulin". This approach by French parliamentarians was reinforced by senators who sent questions to the government on the subject.

Adoption of the resolution at the World Health Assembly (WHA) 2021

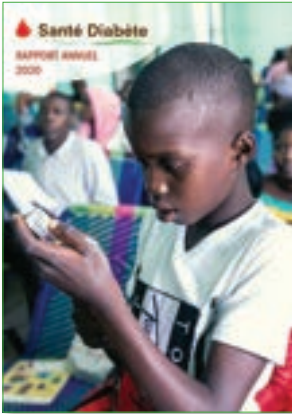
To strengthen the mobilization of the French government during the negotiation phase on May 14, the daily *Le Figaro* published an Op-Ed co-signed by a large number of these MPs and co-signed by Santé Diabète, Diabète et méchant, L'aide aux jeunes diabétiques, the French Federation of Diabetics and OTMeds. [<https://www.lefigaro.fr/sciences/acces-a-l-insuline-a-l-oms-la-france-doit-soutenir-une-resolution-ambitieuse-20210514>]

The advocacy work of Santé Diabète and its partners continued during AMS 74 which was held from May 21 to June 1, 2021, which finally led to the adoption of the resolution.

The mobilization of Santé Diabète was decisive in the adoption of the resolution to mobilize the Member States until the end of the negotiations, including some initially hostile to the resolution. This adoption sends a strong signal, and monitoring the implementation of the resolution is now a priority.

10. COMMUNICATIONS AND PUBLICATIONS

INSTITUTIONAL PRODUCTIONS



• Annual report 2020



• Video gallery and presentation of the teams

<https://www.youtube.com/watch?v=le3mKrdkS1l&t=3s>

<https://www.youtube.com/watch?v=qrusPJgoA2o&t=150s>

<https://www.youtube.com/watch?v=4MtzgU1fJk>

OP-EDS

• **The Lancet (mars 2021)**

Beran D, Besançon S, Colagiuri S, Ernoult N, Margaret E, Fleury C, Lepeska M, Londeix P, Pfiester E, Yudkin John S. Failing to address access to insulin in its centenary year would be a catastrophic moral failure. *The Lancet*. March 3, 2021 [https://doi.org/10.1016/S2213-8587\(21\)00048-6](https://doi.org/10.1016/S2213-8587(21)00048-6)

• **Le Monde (novembre 2021)**

The Op-Ed published in the daily *Le Monde*, November 24, 2021: «Let's finally make insulin accessible to all», column co-signed by Stéphane Besançon, Vincent Ledoux, Bertrand Burgalat, Pauline Londeix, Jérôme Martin.



• **Le Monde (janvier 2021)**

The Op-Ed published in the daily *Le Monde*, January 19, 2021: “Against Covid-19, we must ensure Africa has access to the vaccine”, column co-signed by Stéphane Besançon, Cynthia Fleury, Thomas Piketty, Pauline Londeix, Jérôme Martin, Nathalie Ernoult, in particular

- **Le Figaro (mai 2021)**

« Access to insulin: at the WHO, France must support an ambitious resolution » published in the daily Le Figaro, Monday May 17, 2021. Op-Ed co-signed by Stéphane Besançon, Vincent Le Doux, Marc De kerdanet, Bertrand Burgalat, Pauline Londeix , Jérôme Martin and 20 MPs of the French National Assembly.



ARTICLES AND PUBLICATIONS

- Togo A, Minkailou M, Trebuchet P, Sylla D, Sidibé A, Besançon S, Nguemini M, Signe T, Lab B, Castellsague M. Therapeutic education in Mali: a training workshop for caregivers and young diabetics from type 1. Tropical Diseases and International Health. August 23, 2021
- Sandy JN, Besançon S, Sidibe AT, Minkailou M, Togo A, Ogle G. Rapid increases in observed incidence and prevalence of Type 1 diabetes in children and youth in Mali, 2007–2016. *Pediatr Diabetes*. 2021. <https://doi.org/10.1111/pedi.13191>
- Prahald P, Schwandt A, Besancon S, Mohan M, Obermannova B, Kershaw M, Bonfanti R, Pundziute Lyckå A, Hanas R, Casteels K and SWEET Study Group. Hemoglobin A1c Trajectories in the First 18 Months After Diabetes Diagnosis in the SWEET Diabetes Registry. *Pediatr Diabetes*. 2021 Nov 14. <https://doi.org/10.1111/pedi.13278>

- **Libération (avril 2021)**

Santé Diabète also co-signed an Op-Ed in the daily Libération on access to vaccines against COVID-19 (April 1, 2021): «States must release the production of anti-Covid vaccines» https://www.liberation.fr/idees-et-debats/tribunes/les-etats-doivent-liberer-la-production-de-vaccins-anti-covid-20210331_VHGF2ZU7QRDRFGU46SCM6EH4EI/



CONFERENCES

- **10th Global Conference on Health Promotion – World Health Organization**
Besançon. S. Health Literacy development for the prevention and control of NCDs
December 15, 2021, Geneva, Switzerland (virtual)
- **Congress of Internal Medicine of Burkina Faso 2021**
Besançon. S. Prevention of covid19 infection in people with diabetes in Mali and Burkina Faso
November 13, 2021, Bobo-Dioulasso Burkina Faso
- **Pharo 2021 news**
Besançon. S. Prevention of covid19 infection in people with diabetes in Mali and Burkina Faso
October 8, 2021, Marseille France
- **International hospital cooperation day: exchange of good practices**
Besançon. S. Sidibe AT. Chabre O. Togo A. Le Moullec N. Mohamed A. Soumountera A. Prevention and management of diabetes in Mali and the Comoros: example of collaboration between the NGO Santé Diabète and French hospitals.
June 19, 2021, Paris France
- Participation as a panelist in the conference organized by LFAC with the United Nations representative for the right to health
- 3 days of informal WHO consultation with people living with diabetes. March 10, 2021, Geneva (virtual), World Health Organization (WHO)
- **WHO Private Sector Dialogue on SDG 3.4 Noncommunicable Diseases.**
February 23, 2021, Geneva (virtual), World Health Organization (WHO)
- Santé Diabète participated with Dr. Tedros, Director General of the World Health Organization (WHO), WHO teams, Ministers of Health and various experts in the **Global Seminar and Launch of the Report of the WHO Global Meeting to Accelerate Progress on SDG Target 3.4 on NCDs and Mental Health.**
January 27, 2021, Geneva (virtual), World Health Organization (WHO)

FILM

- **Film/project ACCISS - HAI - September 2021**
On the occasion of the centenary of insulin, our partner of the ACCISS project, Health Action International (HAI) produced a short film exposing the issues around access to insulin. In this film, appears Stéphane Besançon, general director of Santé Diabète.



TESTIMONIALS



SALMATA ASKALANE

23 years old, student L2 University of Mvouni (Comoros), in Economic and Social Administration

« I discovered Santé Diabète through community screenings.

I was overweight and always short of breath. Following a call from the head of the Prevention House telling me that I had risk factors related to diabetes, I went there. Since then, and thanks to the advice I was given there, in particular through workshops on risk factors and weight management, diet and physical activity, I am motivated, I eat better and I often walks to go to the University. Today, I can say that the Maison de la Prévention has been a turning point for me and I invite my entourage and my friends to go there to be better informed »



PR. CYNTHIA FLEURY

Professor holding the Humanities and Health Chair at the

National Conservatory of Arts and Crafts (CNAM) and director of the philosophy chair at the hospital in Paris

« The Santé Diabète teams do extraordinary daily work with people with diabetes in Africa. It is a source of pride for me to be associated with it, in particular through the chair of philosophy at the hospital set up in Bamako and Paris. »



DR GRAHAM OGLE

Director of the

Program, International Diabetes Federation

« 15 years ago, there were less than 15 children with type 1 diabetes alive in Mali, with a life expectancy not exceeding on average 1 year after their diagnosis. Thanks to the excellent work of Santé Diabète in partnership with Life for a Child, the situation has improved considerably with more than a thousand children and young adults now living normally with type 1 diabetes in the country. »



PR. YOUSOUFOU JOSEPH DRABO

Physician-colonel, former head of the internal medicine department of the CHU-YO of Ouagadougou / Burkina Faso

« Our work alongside Santé Diabète, specialists from the sub-region and internationally, has enabled us to train specialists in endocrinology and diabetes in the country through the establishment of the Specialized Study Diploma (DES) of endocrinology and a university degree (DU) in diabetology. We have also trained health professionals in the management of type 2 diabetes and more recently type 1 diabetes at different levels of the health pyramid. We were also able to support the Ministry of Health in strengthening policy documents for the fight against Non-Communicable Diseases and more specifically the fight against diabetes. Our joint expertise (medical specialists/Santé Diabète) allows year after year a national awareness of the problem of diabetes and to obtain results that make it possible to change the daily lives of patients with diabetes in Burkina Faso. »

OUR AREAS OF EXPERTISE

	 Mali	 Burkina-Faso	 Union of the Comoros	 France	 International
 Primary prevention	✓	✓	✓	✓	
 Health care supply strengthening	✓	✓	✓		
 Diabetes humanitarian response	✓				
 Therapeutic education	✓	✓	✓	✓	
 Drug access	✓	✓	✓	✓	✓
 Strengthening Civil Society	✓	✓	✓	✓	✓
 Support to public health policies	✓	✓	✓	✓	
 Citizenship and international solidarity education				✓	
 University degree-training development	✓	✓			
 Advocacy	✓	✓	✓	✓	✓
 Research	✓	✓			✓

OUR TECHNICAL & FINANCIAL PARTNERS



ministère de la Santé,
de la Solidarité, de la Cohésion
Sociale et de la Promotion du Genre



*The annual reports of the NGO Santé Diabète are available at: www.santediabete.org
Redaction: Stéphane Besançon / Pauline Londeix with Moïse Nguemeni, Moussa Bagayogo et Jeanne Billaudel
Photographs: ©Olivier Hébrard/©Sébastien Rieussec/©Moïse Nguemeni/©Pauline Londeix
Graphic design and layout: ©Sandra Derichs - Social & graphic*

*© Santé Diabète 2021 - All rights reserved. No part of this report may be reproduced without the prior written permission of Santé Diabète.
Requests should be sent by email to: contact@santediabete.org.*



contact@santediabete.org

www.santediabete.org

You can also find us at:    

Head Office France

17 avenue Malherbe
38100 Grenoble
Tel: +33 (0)6 24 51 82 69
Fax: +33 (0)4 26 00 73 66

Branch Office Mali

Hippodrome Rue 254 porte 69
BP 2736 Bamako Mali
Tel/Fax: (+223) 20 21 95 66
Cell: (+223) 77 81 26 70

Branch Office Burkina-Faso

Quartier Paspanga Secteur 4
Ouagadougou Burkina Faso
Cell: (+226) 70 10 23 55

Branch Office Comores

BP 8109 Moroni, Grande Comore
Union des Comores
Tel: (+269) 773 23 09
Cell: (+269) 347 68 43