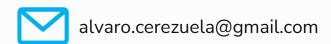




CIRUÇÍA SOLIDARIA

Álvaro Cerezuela Fernández de Palencia







CIRUGÍA SOLIDARIA





WHO ARE WE?

- ⋄ NGO
- Independent
- Non-profit
- Public utility
- National Register of Associations
- * AECID

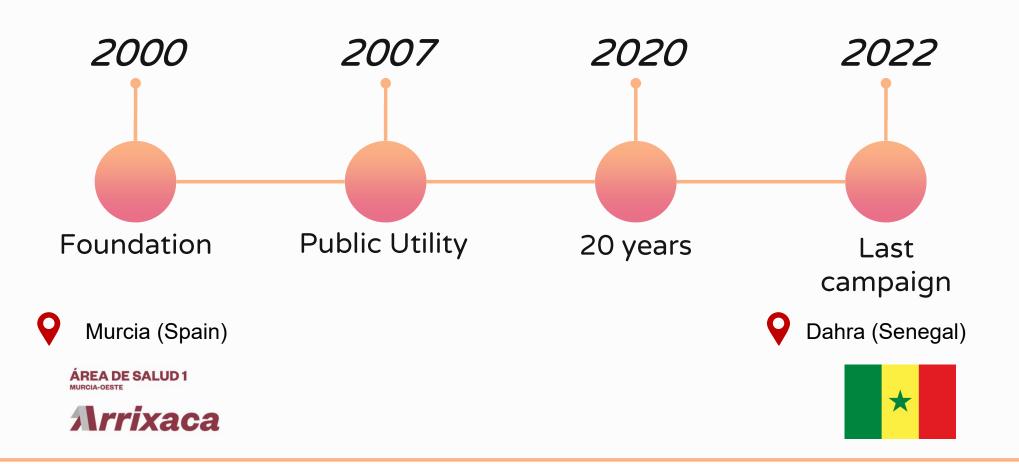








OUR HISTORY







NGO OBJETIVES

HEALTHCARE

TRAINING



DEVELOPMENT

SCHOOLS AND ORPHANAGES

HUMAN RESOURCES

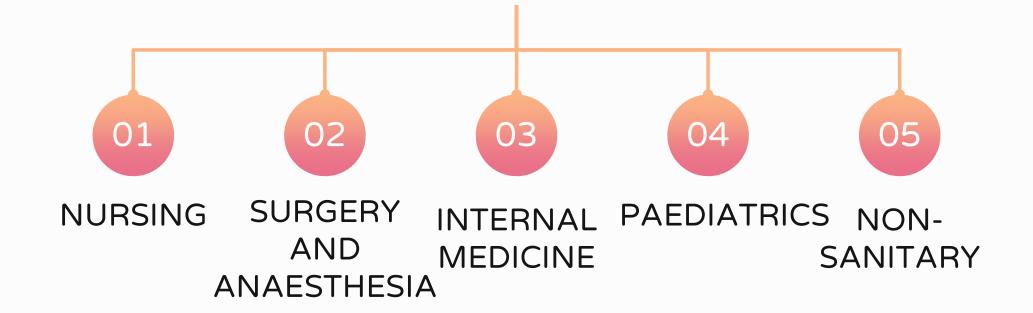
~ 140 Cooperants

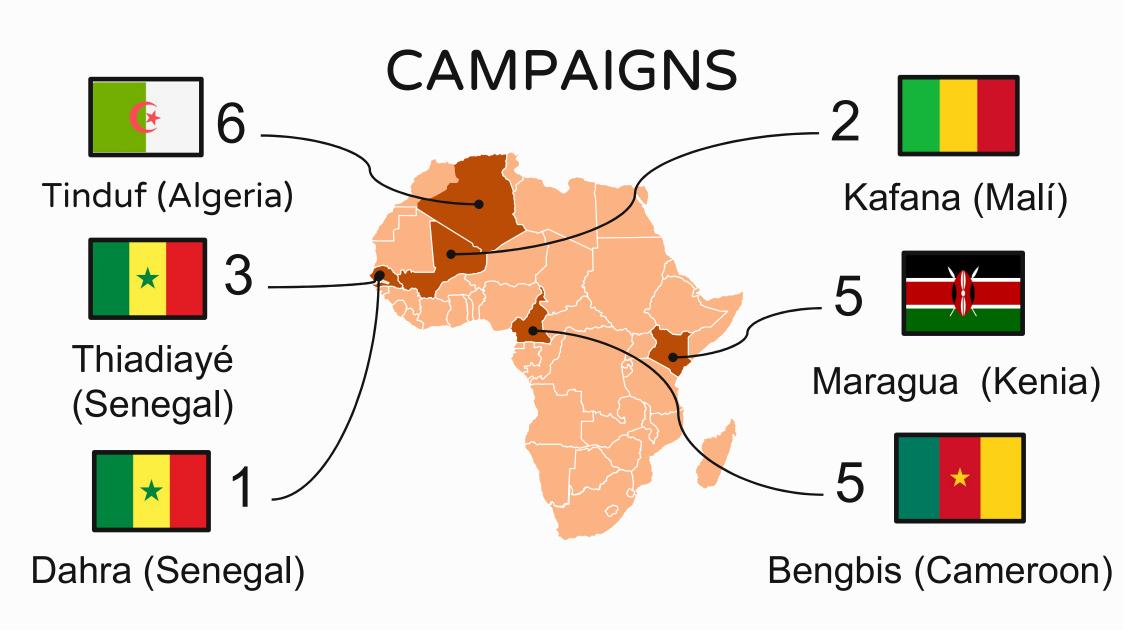
> 40 M.I.R General Surgery / Anaesthesia / Traumatology

Multidisciplinary teams



TEAM

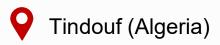




















Cameroon

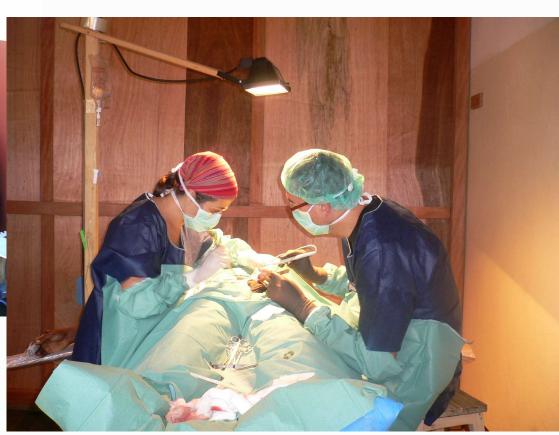








Cameroon













Malí









Cameroon

















Cameroon









Senegal







WHY AFRICA?







1 SURGEON / 13.000





1 SURGEON / 400.000











<1 \$ PER DAY

SCARCE RESOURCES

LOW TRAINING

HIGH COST

DISTANCES





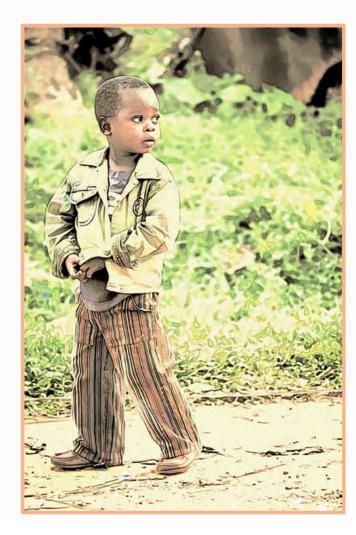
PARTNERSHIP















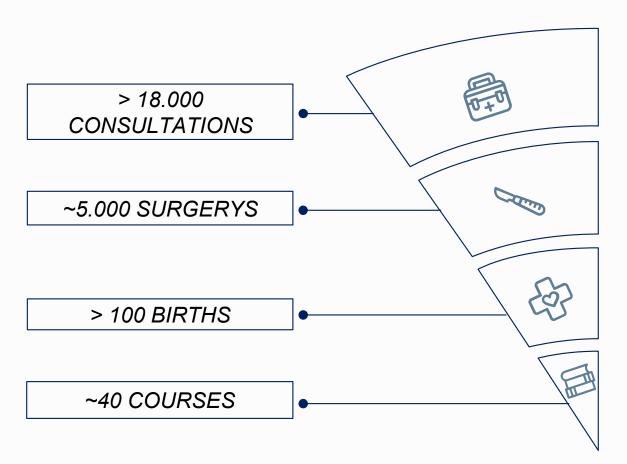








WE LIKE TO COOPERATE







ONGOING PROJECTS

SURGICAL PROJECTS

- MULTIPLE SURGICAL SPECIALTIES
- COMPLEX SURGERY IN SPAIN
- POST-SURGICAL FOLLOW-UP







PATOLOGÍAS ATENDIDAS POR CIRUGÍA GENERAL:

CIRUGÍA DE PARED ABDOMINAL:

HERNIAS EVENTRACIONES

CIRUGÍA TIROIDEA:

BOCIOS TUMORES TIROIDEOS

CIRUGÍA DE LA MUJER:

MIOMAS TUMORES MAMA TUMORES OVARIO PARTOS CESÁREAS



Lámpara quirúrgica improvisada. Camerún, 2005.



Dr. Djaloo. Cirujano Jefe del Hospital de Sikasso.



Médico maliense explorando.



Cesárea urgente.



Exploración de reflejos en recién nacido.

OTRAS PATOLOGÍAS:

HIDROCELES FIMOSIS LIPOMAS TUMORES CUTÁNEOS COLELITIASIS HERIDAS ABSCESOS HEMORROIDES FÍSTULAS



Filarias encontradas en hemia inguinal.



Tumores gluteos. Antes y después de la cirugía.



Equipo con sanitarios malienses.





PATOLOGÍAS ATENDIDAS POR ESPECIALIDADES QUIRÚRGICAS:

CIRUGÍA MAXILOFACIAL (CMF)

LABIOS LEPORINOS TUMORES PARÓTIDA



Labio leporino

ODONTOLOGÍA

EXODONCIAS

CIRUGÍA INFANTIL

HERNIAS FIMOSIS CRIPTORQUIDIAS



Herida de machete. Apósito rudimentario.

OTORRINOLARINGOLOGÍA (ORL)

AMIGDALECTOMÍAS TUMORES

UROLOGÍA

HIDROCELES FIMOSIS



Hidrocele gigante.

CIRUGÍA COMPLEJA EN ESPAÑA

CARDIOPATÍAS CONGÉNITAS TUMORES FACIALES

CIRUGÍA ORTOPÉDICA

SECUELAS DE ACCIDENTES MALFORMACIONES









CIRUGÍA PLÁSTICA

QUEMADURAS TUMORES











ORL PROJECT









MEDICAL PROJECTS

- GENERAL MEDICAL CARE
- ULTRASOUND ASSISTANCE
- MANAGEMENT OF HTA,
 DIABETES AND NONCOMMUNICABLE
 DISEASES



















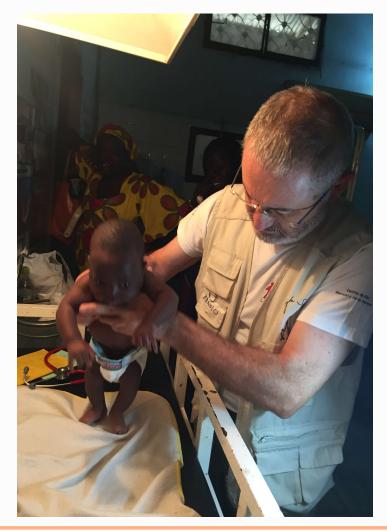
MOTHER AND CHILD HEALTH PROJECT

- PAEDIATRIC CARE
- OBSTETRIC CARE
- NEWBORN CARE

























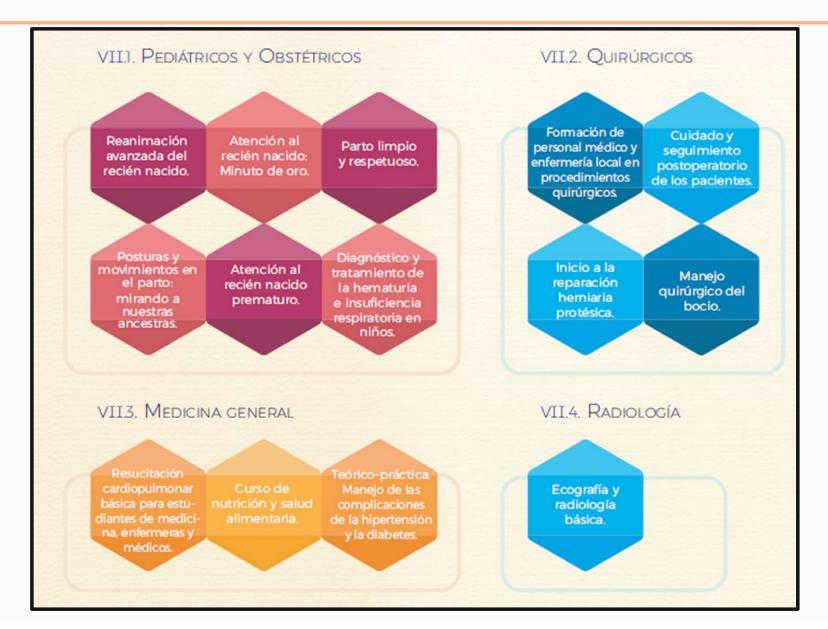


TRAINING PROJECTS























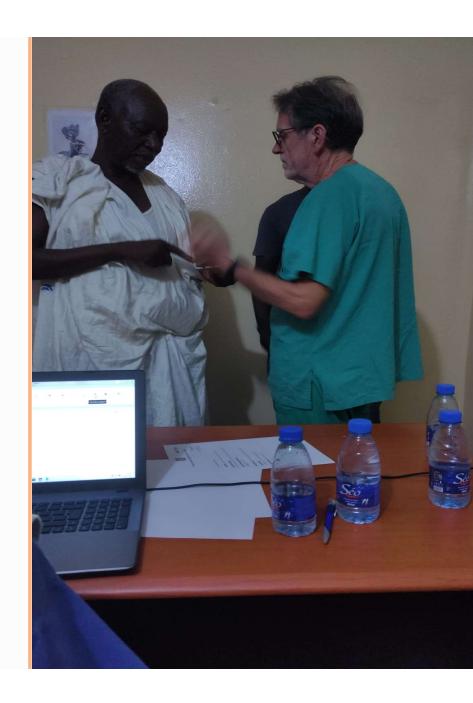
OTHERS

- ASSISTANCE TO THE SURGICAL PATIENT
- ENVIROMENTAL
- FOOD AND NUTRITION



UPCOMING AND EMERGING PROJECTS

- GNU Health
- TELEMEDICINE (virtual glasses)
- 3D Prosthesis







UNIVERSITY COLLABORATION





SPECIALIZATION COURSES

- Proctology
- Thyroid
- Laparoscopy
- Neonates

. . . .

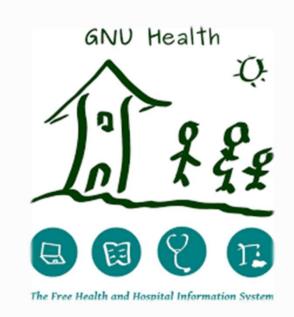


- International Cooperation
- Project management











GNU HEALTH

PILOT IMPLEMENTATION PROJECT



"GNU Health is a Free, community driven project from GNU Solidario, a non-profit humanitarian organization focused on Social Medicine."

WHAT IS GNU HEALTH?





Why GNU Health?



- Medical History
- Laboratory
- Sociodemographic

REQUIRED



- Patient
- Professionals

REQUIRED



- Exportable
- Research
- Logistics

REQUIRED





Г					Miercola 25	2			
		NOMBRE	EDAD	SEXO	DIAGNÓSTICO	ANEST.	PROCEDIMIENTO	QX	CIRUJANO
108	1	NGANE (THERESAND)	40	8	Orenedora Broso	Bloques	Injecto.		Dr. C62000
885	5	KHAO' YACINE	27	Q	Quiste Retroportale	- A.L.	Exercis		Dra. Radige
617	3	MORR SARR	42	8	GANGLION	D. L.	Exeresis		
4	4	KA ALARBA	35	\$	NOOLLO (FIROLOZO) (3) HALIGNO	Δ.6.	Hen Frosbetorie		
950?	5	EMBOYA KA	35	9	Quisto Anciol	Rogar	Anexedorie D		Dro Corros
	6	COUMBA THIAM	54	\$	LIPOTA/QUISTE RODILLA	A.L.	Exeresis		
	7	OLHAN MANG	8	8	(BOLIO) Groves	1.6	Irordestaria 4.		
	8	ABDOY CALLO NOITE	71	8	Henocroids +	Rogers	Hemoroidatomia		
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	10	MARO DIA FALL	31	2.	HIGHA STERIND	D.6.	h) are som la		Dro. Corro
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82?	10	DIANG ANGA SOW.	45	\$	Colel Fors		. 9. SIADO.		

ADVENTAGES

Patient registration with demographic data

Reports

Simultaneous use by users (doctors / nurse / administration)

Individual access

Availability of patient data without paper

Exploitation/Export of data

Integration of multiple specialties

Integration of management applications

Possibility of using Big Data

Easy patient tracking

Increased patient safety



DISADVENTAGES

Network or system dependency

Local network configuration

Server availability

User training in the programme

User rejection, in complex applications.

Need to adapt to the needs of each speciality.

Difficult access to material in Africa.

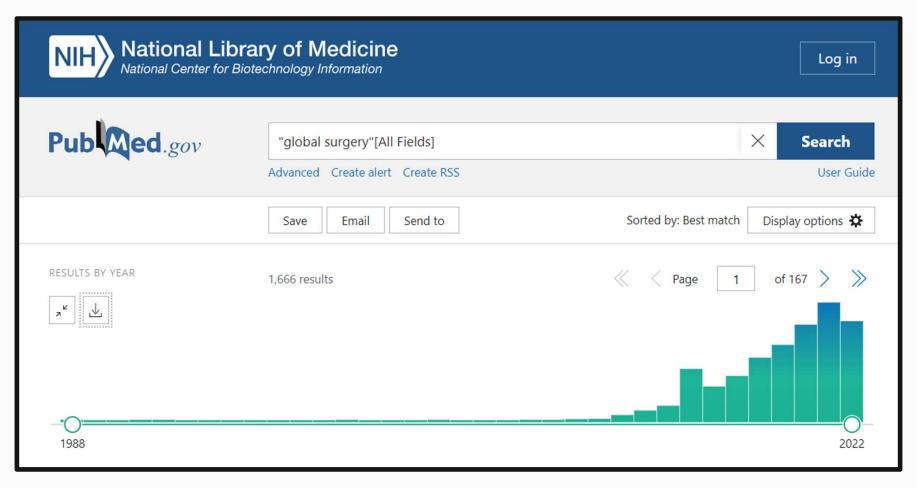




GLOBAL SURGERY











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Accepted: 4 February 2022

DOI: 10.1002/lio2.764

ORIGINAL RESEARCH

Investigative Otolaryngology

Goiter surgery recommendations in sub-Saharan Africa in humanitarian cooperation

José Gil Martinez MD, PhD¹ | Miguel González MD, PhD² |
Quiteria Hernández MD, PhD¹ | María Angeles Rodríguez MD, PhD³
Nuria Torregrosa MD, PhD⁴ | Elena Gil MD, PhD¹ |
Pedro Antonio Cascales MD, PhD¹ | Miguel Angel Delgado MD, PhD⁵
Joan Sancho MD, PhD⁶ | Victor Lopez-Lopez MD, PhD¹ |
Jose Manuel Rodriguez MD, PhD²

World J Surg (2021) 45:1297–1305 https://doi.org/10.1007/s00268-021-06001-x





SURGERY IN LOW AND MIDDLE INCOME COUNTRIES

Humanitarian Surgical Missions in Times of COVID-19: Recommendations to Safely Return to a Sub-Saharan Africa Low-Resource Setting

Víctor Lopez-Lopez¹⊙ · Ana Morales² · Elisa García-Vazquez³ · Miguel González⁴ · Quiteria Hernandez¹ · Alberto Baroja-Mazo⁵ · Dolores Palazon¹ · Jose A. Tortosa⁶ · Maria A. Rodriguez⁵ · Nuria M. Torregrosa⁶ · Winnie Kanyi⁶ · J. K. Ndungu¹⁰ · José Gil Martinez¹ · José M. Rodriguez¹

Accepted: 31 January 2021/Published online: 20 February 2021 © Société Internationale de Chirurgie 2021





BMJ Global Health

Ethical considerations in global surgery: a scoping review

Chantalle Lauren Grant ¹, ¹ Tessa Robinson, ² Alreem Al Hinai, ¹ Cheryl Mack, ^{3,4} Regan Guilfoyle, ^{1,5} Abdullah Saleh Sa

Review > Lancet. 2015 Aug 8;386(9993):569-624. doi: 10.1016/S0140-6736(15)60160-X. Epub 2015 Apr 26.

Global Surgery 2030: evidence and solutions for achieving health, welfare, and economic development

John G Meara ¹, Andrew J M Leather ², Lars Hagander ³, Blake C Alkire ⁴, Nivaldo Alonso ⁵, Emmanuel A Ameh ⁶, Stephen W Bickler ⁷, Lesong Conteh ⁸, Anna J Dare ², Justine Davies ⁹, Eunice Dérivois Mérisier ¹⁰, Shenaaz El-Halabi ¹¹, Paul E Farmer ¹², Atul Gawande ¹³, Rowan Gillies ¹⁴, Sarah L M Greenberg ¹⁵, Caris E Grimes ², Russell L Gruen ¹⁶, Edna Adan Ismail ¹⁷, Thaim Buya Kamara ¹⁸, Chris Lavy ¹⁹, Ganbold Lundeg ²⁰, Nyengo C Mkandawire ²¹, Nakul P Raykar ²², Johanna N Riesel ²³, Edgar Rodas ²⁴, John Rose ²⁵, Nobhojit Roy ²⁶, Mark G Shrime ²⁷, Richard Sullivan ²⁸, Stéphane Verguet ²⁹, David Watters ³⁰, Thomas G Weiser ³¹, Iain H Wilson ³², Gavin Yamey ³³, Winnie Yip ³⁴

Affiliations + expand

PMID: 25924834 DOI: 10.1016/S0140-6736(15)60160-X



PILOT PROJECT







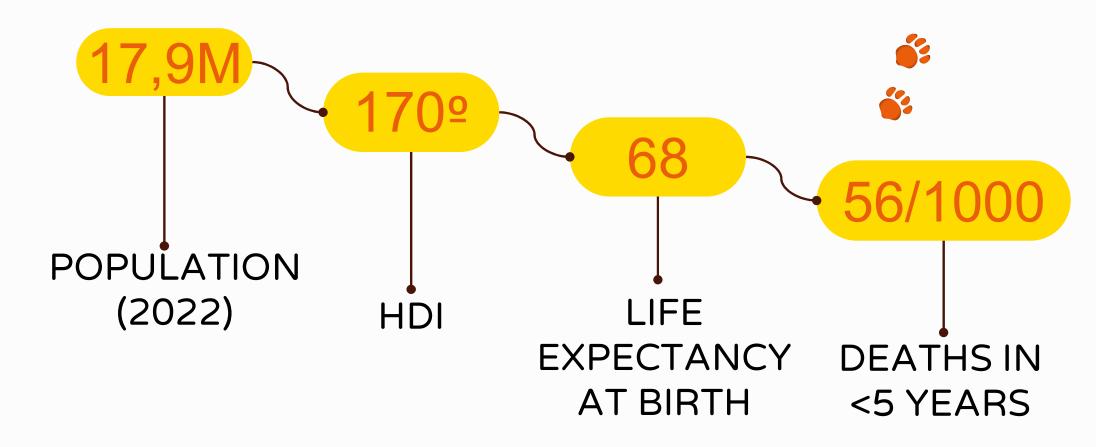
SENEGAL







SENEGAL DATA







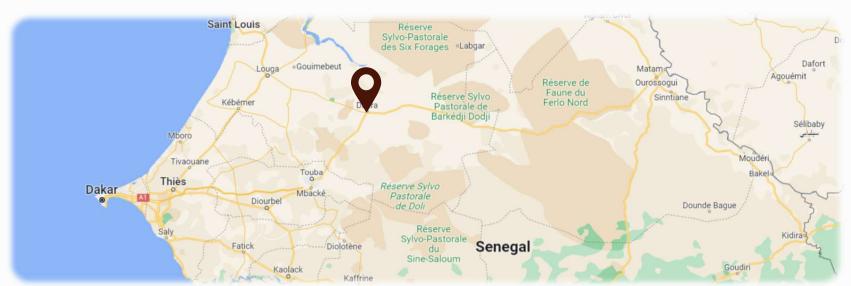
DAHRA DJOLOF















CENTRE DE SANTÉ ELISABETH DIOUF









INFRAESTRUCTURES

















OPERATING ROOM











WAITING ROOM









RESUSCITATION ROOM









HOSPITALISATION

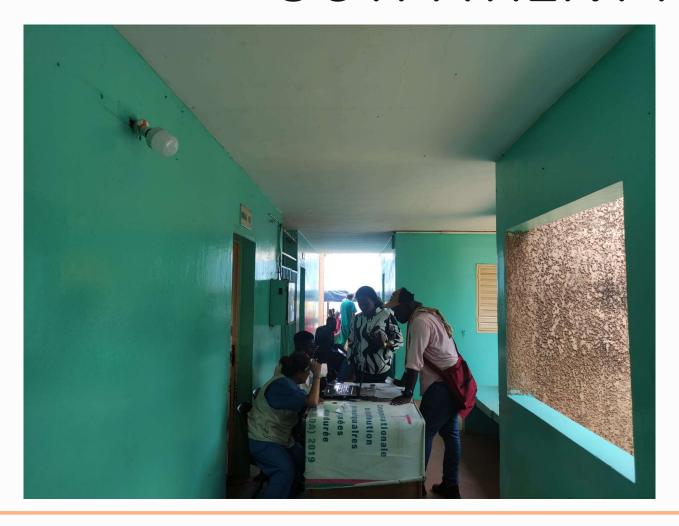








OUTPATIENT ROOM

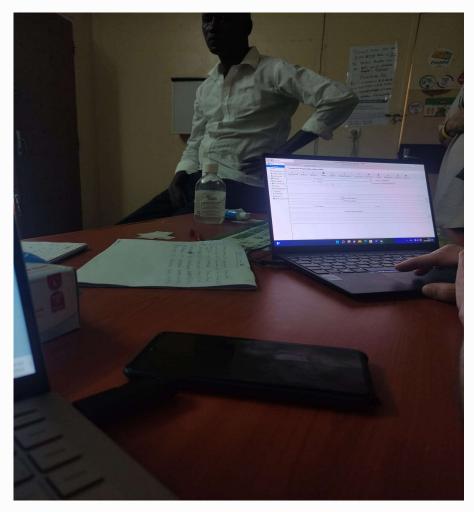








OUTPATIENT ROOM









HUMAN RESOURCES

- GENERAL SURGERY 7 surgeons / 2 MIR (5º y 3º)
- 1 MAXILLOFACIAL SURGERY
- 1 PAEDIATRIC SURGERY
- 1 PLASTIC SURGERY
- 1 GYNAECOLOGY AND OBSTETRICS





HUMAN RESOURCES

3 ANESTHESIA

2 anaesthetist / 1 MIR (4º)

2

INTERNAL MEDICINE 1 neurologist / 1 nephrologist

1

PEDIATRIST

13

NURSING

2 midwifes

2

SUPPORT

1 translator / 1 pre-anaesthesia support

















OBJETIVES







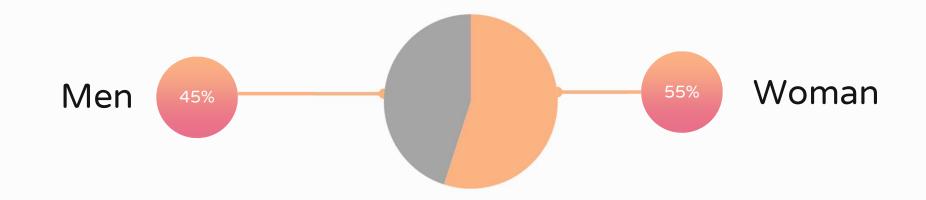








OUR NUMBERS IN DAHRA



10 days

1200

Patients in consultation

370

Surgeries

125

General anaesthesia





PATHOLOGY / GROUP	n	%
Thyroid	40	10,8
Maxillofacial	9	2,4
Hernia	30	8,1
Children	53	14,3
Plastic	35	9,5
Breast	15	4
Gynaecology	22	5,9
Proctology	30	8,1
Abdominal	6	1,6
Ambulatory	129	34,8
Other	1	0,3







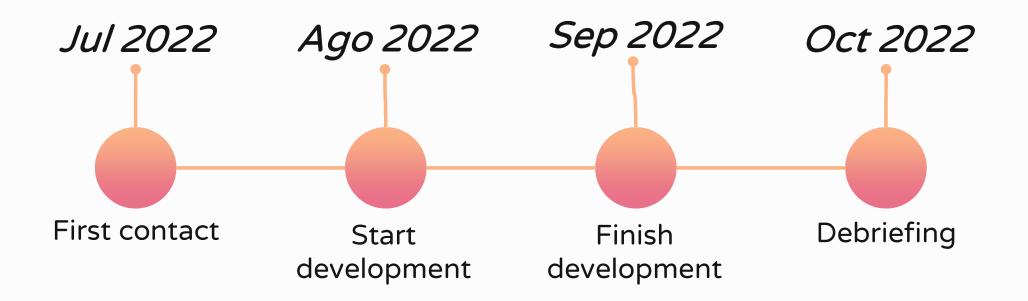
GNU Health Cirugía Solidaria





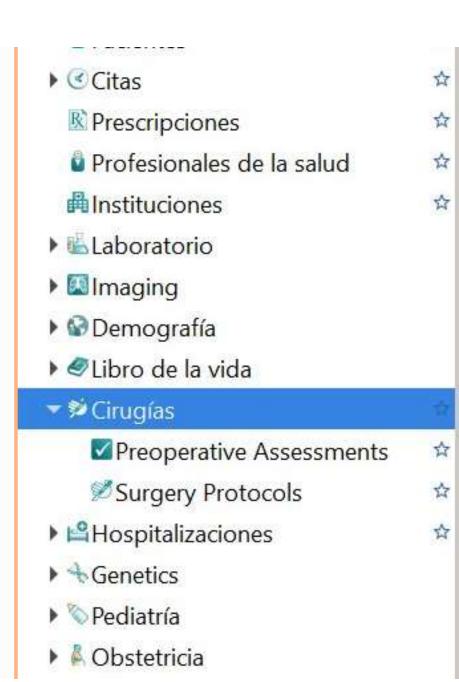


HOW IT STARTED?



DEVELOPMENT

- Surgery module
- Local network
- Local server
 VirtualBox openSUSE Leap 15.4



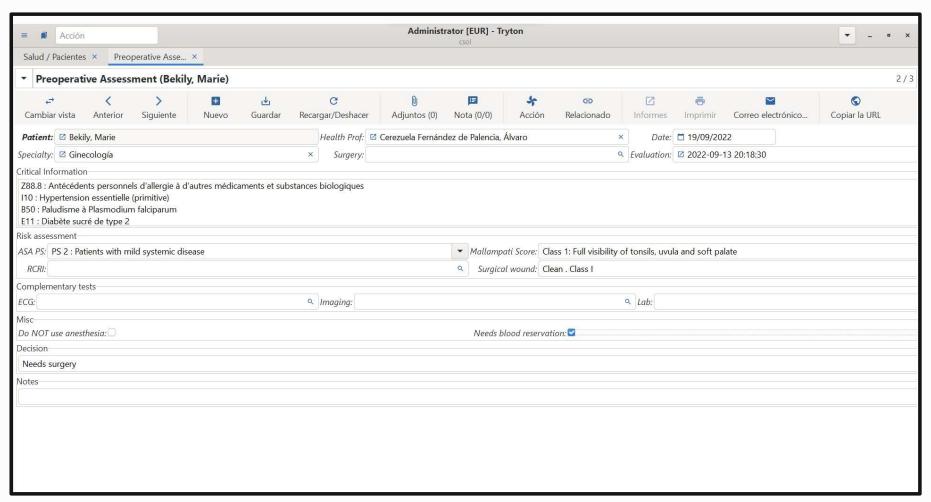


Number of changes done in 45 days





SURGERY MODULE







≡ n Acción		Administrator [EUR] - Tr	yton		▼ _ ¤ X
Salud / Pacientes × Cirugías (Bekily, ×					
▼ Cirugías (Bekily, Marie)					2/5
→ Cambiar vista Anterior Siguiente	■ ৬ € Nuevo Guardar Recargar/Deshacer	Adjuntos (0) Nota (0/0)	Acción Relacionado	Informes Imprimir Co	rreo electrónico Copiar la URL
Patient Bekily, Marie	Femenino 🔻 Edad:	60y 0m 7d	Fecha: 20/09/2022	13:37:46 ▼ Co	ódigo: SRG-2022-00008
	Descripción: HERNIA INGUINAL	Health Condition: ☑ K40 : Her			rófano: ☑ QUIROFANO 2 ×
Institución: 🗵 HOSPITAL PRUEBA SENEGAL	× Cirujano: ☑	Cerezuela Fernández de Palencia, Álva	aro × A	nestesista: 🗵 Gil Martínez, José	×
Surgical Intervention			1 8		
☑ 5-531 : REPAIR OF HERNIA WITH GRAFT/PE	PR × Approach: Ope	en	▼ Ane	sthesia: Rachianesthesia	
Preop assessment:	Riesgo de hemorragia masiva: □	Saturómetro digital colocado:	Marcado del área qui	rúrgica: Profilaxis antibió	tica:□ Esterilidad verificada:□
	Supplies Team Postoperative Discharge				
Patient positioning: Supine Decubitus		V	Laterality: Left		•
Details		Anesthesia			
TEXAS WINE).	rdaje anterior y técnica de Lichestein. Revisión de				
Fin:	▼ Ellapsed t	ime: 25	Borrador		Confirm

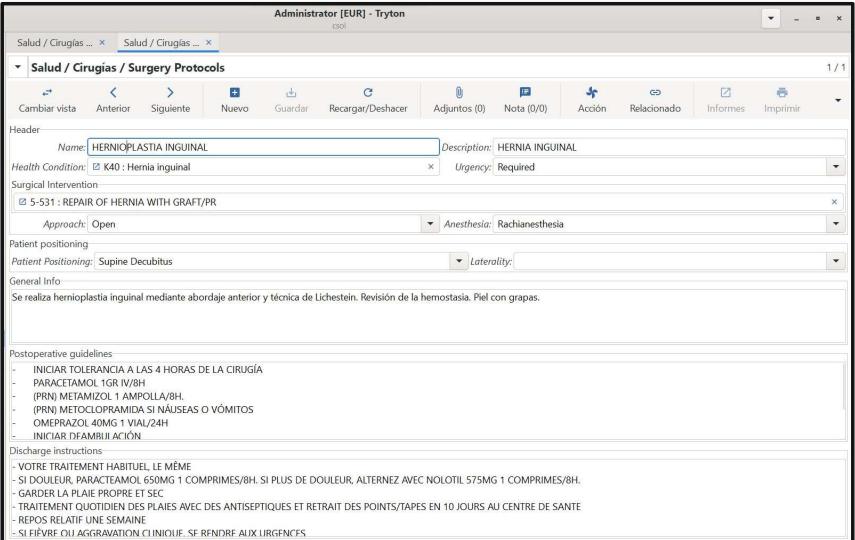




■ Acción		Administrator [EUR] - Try	/ton		_ m X
Salud / Pacientes × Cirugías (Bekily, ×					
▼ Cirugías (Bekily, Marie)					2/5
←	★ ★ C Nuevo Guardar Recargar/Deshacer	Adjuntos (0) Nota (0/0)	Acción Relacionado	☐ ☐ Informes Imprimir Cor	rreo electrónico Copiar la URL
Patient					
☑ Bekily, Marie	Femenino 🔻 Edad: 6	50y 0m 7d	Fecha: 20/09/2022	13:37:46 ▼ Cć	ódigo: SRG-2022-00008
Protocol: ☑ HERNIOPLASTIA INGUINAL ×	Descripción: HERNIA INGUINAL	Health Condition: ☑ K40 : Herr	nia inguinal × Urgen	ncia: Necesario • Quir	rófano: ☑ QUIROFANO 2 ×
Institución: 🗵 HOSPITAL PRUEBA SENEGAL	× Cirujano: 🛮 Ce	erezuela Fernández de Palencia, Álva	iro × An	estesista: 🗵 Gil Martínez, José	×
Surgical Intervention					
☑ 5-531 : REPAIR OF HERNIA WITH GRAFT/PF	R × Approach: Open	ı .	▼ Anest	thesia: Rachianesthesia	
Preoperative checklist					
Preop assessment:	Riesgo de hemorragia masiva:	Saturómetro digital colocado:	Marcado del área quire	úrgica: Profilaxis antibió	tica: Esterilidad verificada:
Main Procedures Complications Su	ipplies Team Postoperative Discharge				
Clavien-Dindo: Grade II					▼
Complications					← 〈 (1/1) 〉 ■ ☑ ■ ∽
Complication	Severity			emarks	
R58 : Hemorragia, no clasificada en otra parte	Moderate		SA	Angrado epigastrico postqu	JIRÚRGICO
Fin:	▼ Ellapsed tim	ne: 25	Borrador	•	Confirm











Hernia	·	<u>.</u>			
Localization: Inguinal	-	Side:	Right	Туре:	H3a - Inguino-scrotal reductible with manual manipulation. Component ing-scrot<10cm
EHS: Lateral (inc	idirect)	Evolution time:	1 - 5 years •	Disfunctionality level:	Limited daily activities
ı I					

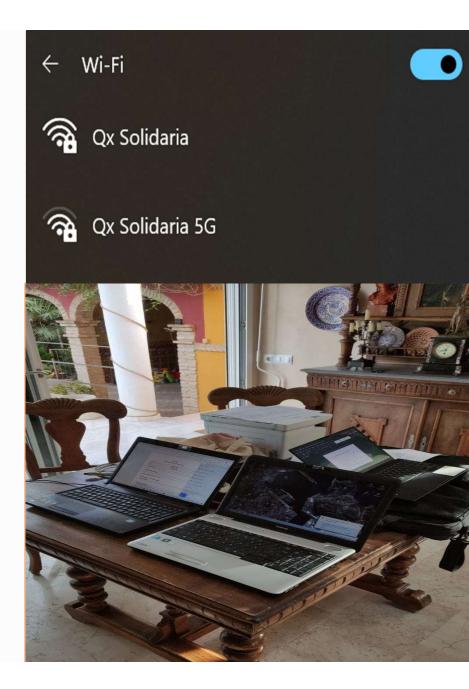




Surgical relevant info			
Thyroid			
Exploration: Goiter	▼ Side: Left	Clinical: Cough	▼ Goiter: Difuse
TI-RADS: TR3	▼ TVol (mL):	Goiter classification: 2	

LOCAL NETWORK

- 7 7 LAPTOP
- 1 PRINTER
- 1 WIFI WLAN





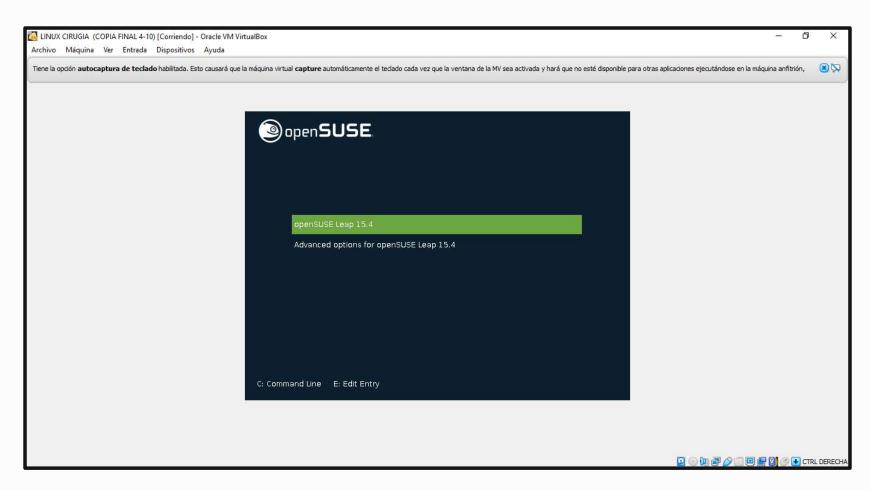


LOCAL SERVER





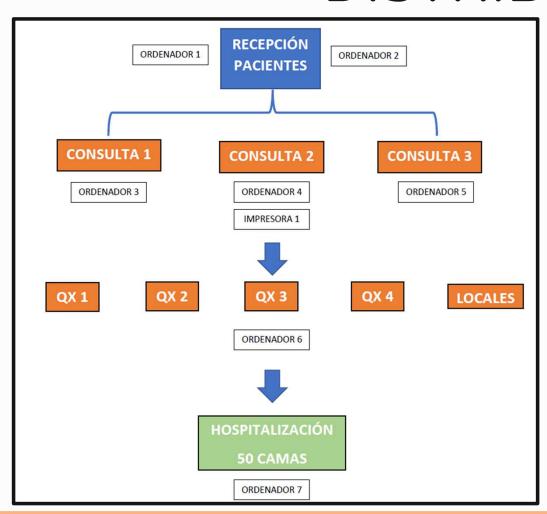






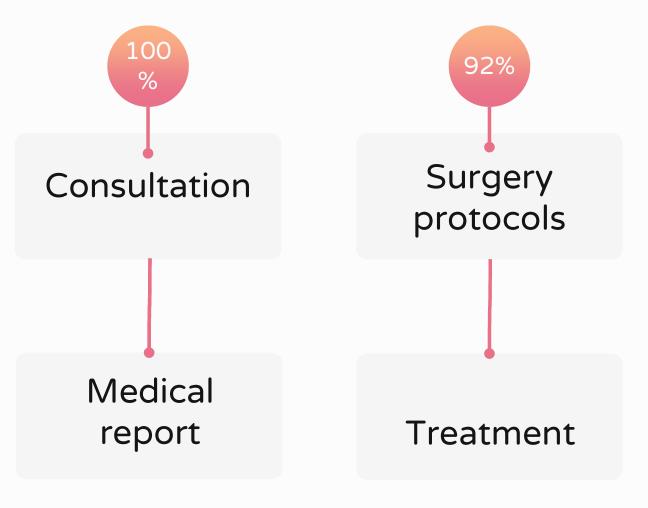


DISTRIBUTION





IMPLEMENTATION RESULTS











IMPROVEMENT POINTS











Enviromental view

WHERE ARE WE GOING?

AUTOMATED SURGICAL PLANNING

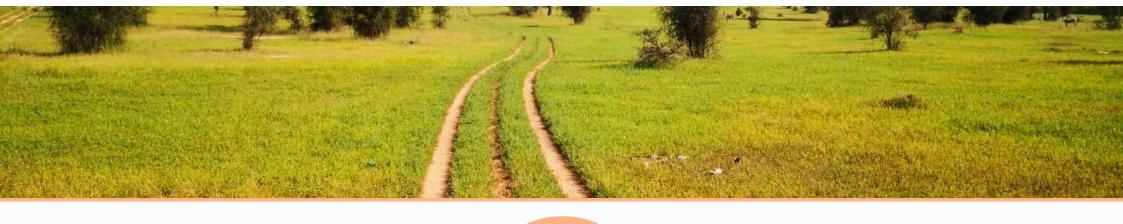
PATHOLOGY-SPECIFIC FORM

INFORMED CONSENT

HOSPITALISATION

LOCAL
IMPLEMENTATION







CONCLUSIONS

CONCLUSIONS

- HIMS are needed in cooperation campaigns.
- They increase patient safety.
- They allow the exploitation of data for care, logistical and research purposes.







Thanks!

Do you have any questions?

www.cirugiasolidaria.es





