

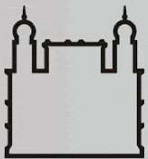
WEBINAR

Simultaneous translation
into ENG-SPA-PT

The use of REDCap beyond surveys and typical databases: *Efficiency in research*

Dec 14 2023, 13:00 GMT / 10:00 GMT-3 (BR/AR)

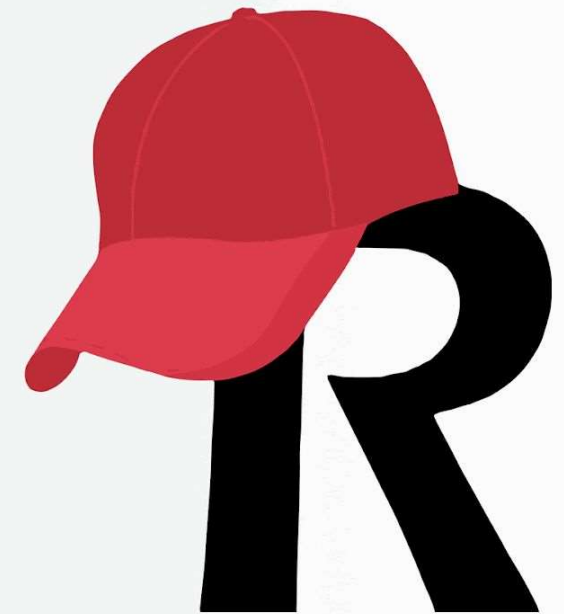
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Ministério da Saúde

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Joining us today

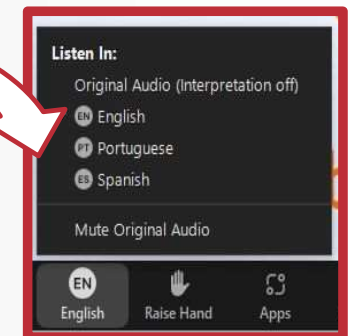
1	Country	Count	Total
2	Spain	250	2722
3	Australia	170	
4	Kenya	159	
5	Brazil	152	
6	India	140	
7	Nigeria	131	
8	Uganda	127	
9	United Kingdom	126	
10	Italy	117	
11	Ghana	114	
12	United States	92	
13	Ethiopia	68	
14	South Africa	67	
15	Cameroon	55	
16	Malawi	53	
17	Tanzania	48	
18	Canada	43	
19	Argentina	42	
20	Belgium	37	

The use of REDCap beyond surveys and typical databases:
Efficiency in research, 14/12/2023



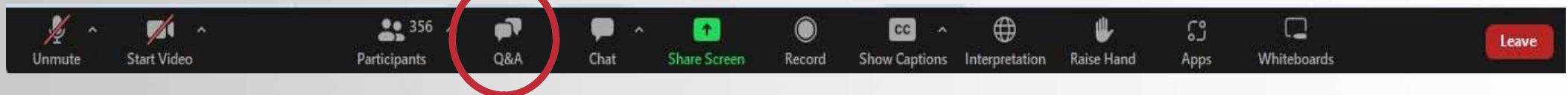
Housekeeping

- This webinar is being recorded and will be shared on The Global Health Network platform - Fiocruz and Latin America and the Caribbean hubs.
- Due to the number of participants your camera and microphone are disabled.
- This webinar will be held in Portuguese and simultaneous translation will be provided into both English and Spanish.
- Navigate to the toolbar, click on Language Interpretation and select your desired language input.



Housekeeping

- Please use the **Chat feature** for introductions and to report any technical issues.
- Please use the **Q&A feature** to post your questions. You can post anonymously.
- We have dedicated time allocated for Q&A so we'll try to get through as many questions as possible.



Panel

Chair: Vanessa de Arruda Jorge - Coordinator of the Information and Communication, Vice Presidency of Education, Information and Communication (VPEIC), Oswaldo Cruz Foundation (Fiocruz), Brazil

Leandro Amparo de Souza - Clinical Research Data Manager at the Clinical Research Platform, Vice Presidency of Research and Biological Collections (VPPCB), Fiocruz, Brazil

Margareth Catoia Varela - Data Scientist and Coordinator at the Immunization and Health Surveillance Research Unit (LIVS), Evandro Chagas National Institute of Infectious Diseases (INI), Fiocruz, Brazil

Ana Paula Esteves Pereira - Epidemiologist and deputy coordinator of the Birth in Brazil II, Department of Epidemiology and Quantitative Methods in Health, Sérgio Arouca National School of Public Health (ENSP), Fiocruz, Brazil

André Bastos Daher - Coordinator of the Fiocruz Clinical Research Platform, Vice Presidency of Research and Biological Collections (VPPCB), Fiocruz, Brazil

Agenda

- **REDCap Introduction in Research**
- **REDCap in Real Life - practical applications**
- **Managing large volumes of data in REDCap - The Birth in Brazil experience**
- **Advanced resources in research project management - The Sakura Project experience**
- **REDCap Software Management**
- **Discussion and Q&A**



Resources

- <https://portal.fiocruz.br/en>
- <https://fiocruz.tghn.org/>
- <https://lac.tghn.org/>
- <https://nascernobrasil.ensp.fiocruz.br/>
- <https://doi.org/10.1371/journal.pone.0294412>



REDCap in Real Life - practical applications

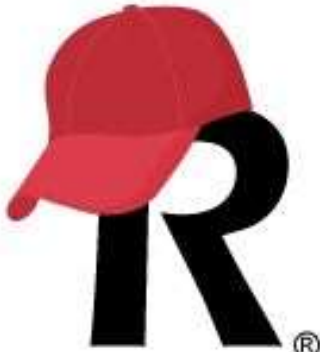
Margareth Catoia Varela

Data Scientist and Coordinator at the Immunization and Health Surveillance Research Unit (LIVS), Evandro Chagas National Institute of Infectious Diseases (INI), Fiocruz, Brazil



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EDCap in real life Practical Applications

MARGARETH CATOIA VARELA

WEBMINAR TGHN – 14/12/2023



Laboratório de Imunização e Vigilância em Saúde
Instituto Nacional de Infectologia Evandro Chagas – INI



Using REDCap as a complete solution to collecting data from riverine populations in three tributaries of the Amazon River.



- Requirement:

Using technology to provide a reliable, safe, practical and inexpensive way to collect demographic and clinical-epidemiological data, in addition to managing blood samples collected and aliquoting performed on a boat, in remote regions without internet connectivity.

- Solution: REDCap Mobile App (offline data collection)



Collect data solution in Amazon

Pre-fieldwork



Labels

- Structured numbers created to identify participants by location
- Barcode label printed to ID bracelet and blood tubes



Technol

- REDCap project with 9 instruments and 104 fields
- Participants ID previously imported to REDCap

• REDCap Mobile App



Fieldwork



Identificatio

- Personal Data



Nursing

- Quantitative data



Medical

- Ectoscopic data
- Physical exam
- Anamnesis



Blood

- Blood sample record
- Rapid test result record



Base station

- Blood aliquoting
- Record of blood aliquots

Post-fieldwork



Tablets

- Sync collected data with the server

Record ID	Participant Codes	Personal Data	Quantitative Data	Ectoscopic Data	Physical Exam	Anamnesis	Blood Samples	Rapid Tests	Blood Aliquots
1201	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1202	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1203	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Results: We have already done two successful expeditions: Madeira River (213 records) and Juruá River (250 records). Due to the COVID-19 pandemic, the expedition to the Purus river was postponed.

Margareth Catoia

The use of REDCap beyond surveys and typical databases: efficiency in research





Telemedicine in the National Immunization Program (BRAZIL): a promising tool

[DOI: 10.1016/j.jvacx.2022.100188]



■ Motivation Problem:

- Some specific groups of patients eligible for care at CRIE should be considered a priority and should not have their vaccination postponed, even in a pandemic context.
- Increased demand for post-vaccination adverse events and questions about vaccines. Dissemination of fake news.



■ Solution:

- Telemedicine service directly for SUS patients, in the area of immunization.

Margareth Catoia

The use of REDCap beyond surveys and typical databases: efficiency in research



Telemedicine - REDCap solution

■ Features

- Surveys (Electronic Informed Consent Form (eICF); appointment scheduling form; user satisfaction assessment form)
- Survey Queue
- Upload fields (documents from and to participant)

Activated?	Survey Title	Display survey in the Survey Queue when...	Auto start?
Not activated	"CRIE-INI/Fiocruz - Projeto de atendimento por Telemedicina"	When the following survey is completed: [select a survey] AND When the following logic becomes true: [logic]	<input type="checkbox"/>
Activated	"Pedido de Agendamento de Consulta"	When the following survey is completed: "CRIE-INI/Fiocruz - Projeto de atendimento por Telemed..." AND When the following logic becomes true: [tcle_aceite]=1	<input checked="" type="checkbox"/>

confirmation of scheduling; sending documents/guidelines generated from the

Alert #1: Confirmação agendamento (Unique Alert ID: A-1)

If the following logic is TRUE when the instrument "Elegibilidade e inclusao" is saved and has a Complete status: [tcle_aceite]='1' and [inc_eleg_sn]='1' and [elegibilidade_e_inclusao_completa]='2'

Send immediately

Repeated sending (when triggered by saving new or modified data)

Activity: 1499 records were alerted (view list) Last sent: 14/11/2023 09:51

Alert #6: Envio de documentos paciente COM... (Unique Alert ID: A-7)

If the following logic is TRUE when the instrument "Orientacoes e Documentos" is saved and has a Complete status: [doc_sn]='1'

Send immediately

Repeated sending (when triggered by saving new or modified data)

Activity: 1043 records were alerted (view list) Last sent: 21/11/2023 15:08

Email Preview for Alert #1:

From: CRIE-INI/Fiocruz <donotreply@ini.fiocruz.br>
To: [inc_email_conf]
Subject: Atendimento virtual no CRIE-INI/Fiocruz - Co...
Prezado Sr(a) [tcle_nome], Seu pedido de agendament...

Attachments (2):

- TelemedicinaCRIE_acessoPorTelefone.pdf
- TelemedicinaCRIE_acessoPorComputador.pdf

Email Preview for Alert #6:

From: CRIE-INI/Fiocruz <donotreply@ini.fiocruz.br>
To: [inc_email_conf]
Subject: Telemedicina CRIE-INI/Fiocruz - Orientações e...
Prezado Sr(a) [tcle_nome], Seguem em anexo os docu...

Attachments (9):

- [doc_presc]
- [doc_enc]
- [doc_decl_atdm]
- [doc_pex]
- [doc_out_01]
- [doc_out_02]
- [doc_out_03]
- [doc_out_04]
- [doc_out_05]





Telemedicine - REDCap solution

- 2 projects
 - CRFs (Main project)
 - Scheduling times (auxiliary project)
- Advanced Features in use:
 - SQL Field

Project Name	Records	Forms	Surveys
[0000] Telemedicina CRIE	3,332	1,762	3 surveys
Telemedicina - Horarios para agendamento	2,284	6	1 form

modules – Additional customizations)

when participant ch

Enable optional modules and customizations

- Auto-numbering for records [?]
- Scheduling module (longitudinal only) [?]
- Randomization module [?]
- Designate an email field for communications (including survey invitations and alerts) [?]
Field currently designated: **tcle_email** ("E-mail")
- Dynamic Data Pull (DDP) from External Source System [?]
- Mosio SMS services for surveys and alerts [?]
- SendGrid Template email services for Alerts & Notifications [?]

Additional customizations

- Data Entry Trigger**
The Data Entry Trigger is an advanced feature. It provides a way for REDCap to trigger a call to a remote web address (URL), in which it will send a HTTP POST request to the specified URL whenever *any* record or survey response has been created or modified on *any* data collection instrument or survey in this project (it is *not* triggered by data imports - including API imports and Mobile App imports - but only by normal data entry on surveys and data entry forms). Its main purpose is for notifying other remote systems outside REDCap at the very moment a record/response is created or modified, whose purpose may be to trigger some kind of action by the remote website, such as making a call to the REDCap API. [View more details](#)

URL of website: https://livs.ini.fiocruz.br/projetos/redcap/crie_telemedicina_test [How to use Piping in the URL](#)



Telemedicine - REDCap solution

- Scheduling times Project
 - Fields to manage datetime availability

tem field) used to facilitate viewing of available times in dashboard

Record ID	Telemedicina CRIE Horarios
2201 18-08-2023 11:00	
2202 18-08-2023 11:30	
2203 22-08-2023 13:20	
2204 22-08-2023 13:40	
2205 22-08-2023 14:00	
2206 22-08-2023 14:20	
2207 25-08-2023 09:00	
2208 25-08-2023 09:30	
2209 25-08-2023 10:00	
2210 25-08-2023 10:30	
2211 25-08-2023 11:00	
2212 25-08-2023 11:30	



Telemedicina CRIE Horarios

Editing existing Record ID **2205**, 22-08-2023 14:00

Record ID 2205

Data/hora *Datetime* D-M-Y H:M

Professional *Professional*

Paciente *Patient ID (Principal Project)*

Data/hora disponivel *Availability* Sim Não

Form Status

Complete?



Telemedicine - REDCap solution

■ Main Project

Record ID	TCLE e Aceite	Pedido de Agendamento de Consulta	Elegibilidade e Inclusao	CRIE - Atendimento Principal	CRIE - Atendimento de Retorno	CRIE - Evolucao	CRIE - Orientacoes	EAPV - Ficha de Notificacao	EAPV - Ficha de Investigacao	EAPV - Evolucao	Teleconsultoria	Orientacoes e Documentos	Encerramento	Monitoria	Avaliacao da Consulta Remota	Documentos anexos
3307 Rogério Cardoso Freitas (Elegível: Sim)	✓	✓	●	●	○	○	○	○	○	○	○	●	●	○	✓	○
3308 Sueli Bezerra da Silva (Elegível: Sim)	✓	✓	●	●	○	○	○	○	○	○	○	●	●	○	✓	○
3309 Anderson Mariano Moraes (Elegível: Sim)	✓	✓	●	○	○	○	○	○	○	○	○	○	○	○	○	○
3310 José Maria Porto de Faria (Elegível: Não)	✓	✓	●	○	○	○	○	○	○	○	○	○	○	○	○	○
3311 Luan Adriano Ribeiro Soares (Elegível:)	✓	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
3312 Luan Adriano Ribeiro Soares (Elegível: Não)	✓	✓	●	○	○	○	○	○	○	○	○	○	○	○	○	○
3313 Regina Mendes Francisco Nunes (Elegível: Sim)	✓	✓	●	○	○	○	○	○	○	○	○	○	●	○	○	○
3314 Felipe Ferreira Vianna (Elegível: Sim)	✓	✓	●	●	○	○	○	○	○	○	○	●	●	○	○	○
3315 Fabiano Teixeira da Silva (Elegível: Sim)	✓	✓	●	●	○	○	○	○	○	○	○	●	●	○	✓	○



Agendamento

ATENÇÃO! Abaixo você deverá escolher a data e a hora para o seu atendimento. Entretanto, o agendamento só será confirmado após verificarmos o preenchimento desta ficha. Portanto, fique atento ao preenchimento completo e correto de todos os dados!

Finalizada esta etapa, você receberá uma mensagem (por email ou telefone) com a confirmação do seu agendamento e um link de acesso para a plataforma de atendimento virtual. No dia da consulta, você deverá entrar no link 3 minutos antes da consulta agendada e aguardar o médico iniciar o seu atendimento.

Data/hora agendamento

* must provide value

cad_dth_ag_value

12/12/2023 13:20
12/12/2023 13:40
12/12/2023 14:00
12/12/2023 14:20
19/12/2023 13:20
19/12/2023 13:40
19/12/2023 14:00
19/12/2023 14:20

Como você ficou sabendo deste serviço

* must provide value

Site da Flocruz
 Outros

Você precisou de ajuda de outra pessoa para conseguir fazer esse agendamento para o seu atendimento?

* must provide value

Sim Não

- SQL field to show available datetime.
 - Additional auxiliary field with schedule time ID (cad_dth_ag_value)
- When the survey is saved as complete, the PHP script is executed (trigger) to make the selected time unavailable in the auxiliary project.

Margareth Catoia



BoostCOVID19

[<https://livs.ini.fiocruz.br/projetos/boost01/>]

■ Clinical Research Project

- Safety and Immunogenicity of Heterologous or Homologous Booster After Complete Vaccination Against COVID-19

■ Challenges

- Expected recruitment: 9000 people
 - 3 research centers
 - Need to schedule vaccination
- Intention paperless study
- Need to collect reactogenicity information (electronic participant diary)





BoostCOVID19 – REDCap solution

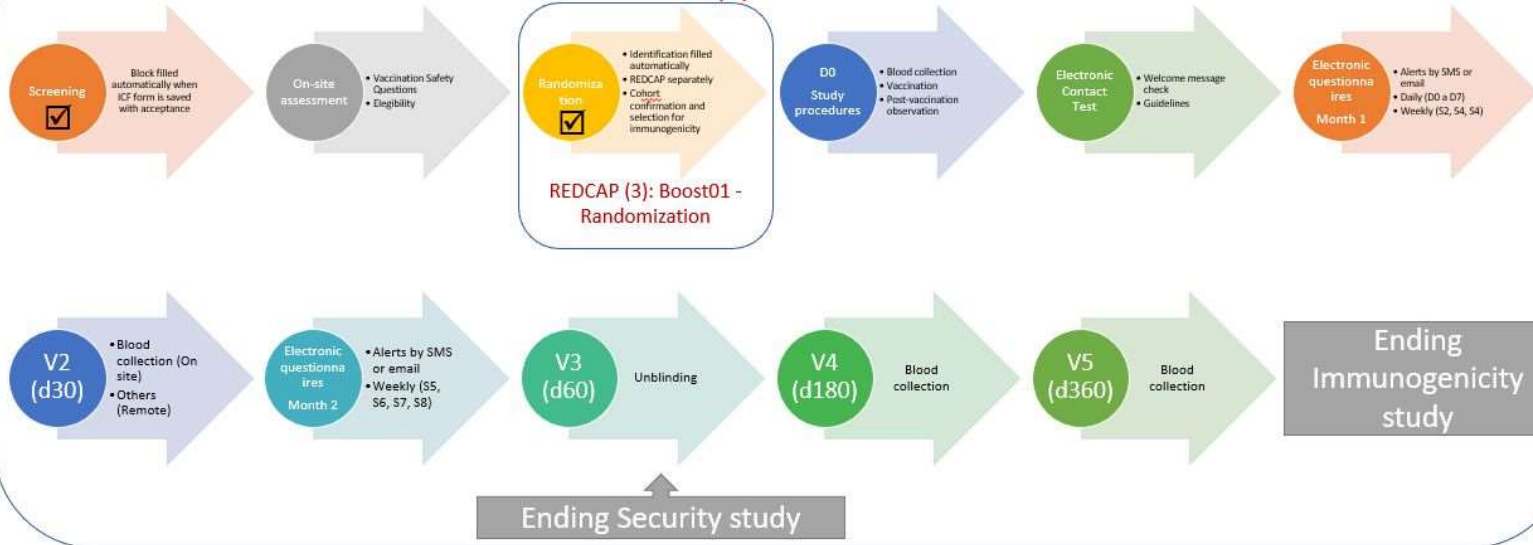
REDCAP (1): Boost01 – Registration of interest and Electronic consent form



REDCAP (4): Boost01 – Scheduling times



REDCAP (2): Boost01 - CRFs



Margareth Catoia

The use of REDCap beyond surveys and typical databases: efficiency in research





BOOSTCOVID19 – REDCap features used

- First project (Registration of interest)

Survey Distribution Tools

Public Survey Link Participant List Survey Invitation Log

Using a public survey link is the simplest and fastest way to collect responses for your survey. You may obtain the survey link below to e-mail it to your participants. Responses will be collected anonymously (unless the survey contains questions asking for identifying data from the participant). **NOTE:** Since this method uses a single survey link for all participants, it allows for the possibility of participants taking the survey multiple times, which may be necessary in some cases.

To obtain the survey link, copy the URL below and paste it into the body of an e-mail message in your own e-mail client. Your e-mail recipient(s) can then click the link to begin taking your survey.

Public Survey URL:

OU Short Public Survey URL:

Protect the public survey using the Google reCAPTCHA feature [?](#)

Link Actions

Open public survey

Open public survey + Sair

Send me URL via e-mail

Survey Access Code or QR Code

Link Customizations

Get Short Survey Link

Create Custom Survey Link

Get Embed Code

BoostCOVID-19

Ainda não tomou a 3.ª dose?

- ✓ Tem mais que 18 anos
- ✓ Faz mais de 3 meses que tomou a 2.ª dose*
- ✓ Quer ser um aliado da ciência
- ✓ Tem interesse em acompanhar a titulação de anticorpos, através de coleta de sangue

*Astrazeneca, Coronavac, Pfizer

Local: Sala da administração da Quinta da Boa Vista

22 e 23 de junho (quarta e quinta)
das 09:30 às 15:30h

Saiba mais sobre o projeto de pesquisa em bit.ly/pesquisadosedereforco

Utilize o código de acesso: **QBV**

Rio SAÚDE | SUS



BOOSTCOVID19 – REDCap features used

Instrumentos de Coleta de Dados

Form options: Form Display Logic

Survey options: Survey Queue Auto Invitation options Survey Log Survey Notifications Analyze surveys for SMS & Voice Calls

+ Create a new instrument from scratch
Import a new instrument from the official [REDCap Shared Library](#)
Upload Instrument ZIP file from another project/user or [external libraries](#)

Instrument name	Fields	Visua PDF	Enabled as inquérito	Instrument actions	Survey-related options
Cadastro	54		<input checked="" type="checkbox"/>	Choose action	<input checked="" type="checkbox"/> Survey settings + Automated Invitations
Validacao PNI	18		<input type="checkbox"/> Enable	Choose action	
Convite	27		<input type="checkbox"/> Enable	Choose action	
Tcle E Aceite	18		<input checked="" type="checkbox"/>	Choose action	<input checked="" type="checkbox"/> Survey settings <input checked="" type="checkbox"/> Automated Invitations
Tcle E Aceite v2	18		<input checked="" type="checkbox"/>	Choose action	<input checked="" type="checkbox"/> Survey settings <input checked="" type="checkbox"/> Automated Invitations
Agendamento GloriaDor	4		<input checked="" type="checkbox"/>	Choose action	<input checked="" type="checkbox"/> Survey settings + Automated Invitations
Agendamento UISMAV	4		<input checked="" type="checkbox"/>	Choose action	<input checked="" type="checkbox"/> Survey settings + Automated Invitations
Agendamento AAguiar	5		<input checked="" type="checkbox"/>	Choose action	<input checked="" type="checkbox"/> Survey settings + Automated Invitations
Agendamento TstTreinamento	4		<input checked="" type="checkbox"/>	Choose action	<input checked="" type="checkbox"/> Survey settings + Automated Invitations
Exportacao para Projeto Principal	4		<input type="checkbox"/> Enable	Choose action	





BOOST COVID19 – REDCap features used

- Automated invitations

Define Conditions for Automated Survey Invitations

In this pop-up you may define your conditions for automated survey invitations that will be sent out for the survey (and event, if a longitudinal project) listed in the Info box below. [Me conte mais](#)

Activate automated invitations for this survey?
Survey title: Projeto BOOST01 - Segurança e Imunogenicidade de reforço heterólogo ou homólogo após a vacinação completa contra a Covid-19.
"Active" must be selected in order for automated survey invitations to be triggered and sent using the conditions specified in this popup. You may make it Not Active (and vice versa) at any point in the future. [?](#)
 Active Not Active

STEP 1: Invitation type - How the participant is invited
Use participant's preference [?](#)

STEP 2: Compose message
De: Projeto BOOST01 margareth.catoia@ini.fiocruz.br
(select any project user to be the "Sender")
Para: [All participants who meet the conditions defined]
Subject: BOOST01 - Termo de Consentimento Livre e Esclarecido (vers [Subject will not be used in SMS and voice call invitations])
[Send test e-mail](#)

Paragraph **B** *I* U [Link](#) `</>` [Undo](#) [Redo](#)

Olá [id_nome].
Considerando seu cadastro de interesse no Projeto BOOST01 - Segurança e Imunogenicidade de reforço heterólogo ou homólogo após a vacinação completa contra a Covid-19, segue o link para preenchimento do [survey-link:tcde_e_aceite_v2:Termo de Consentimento Livre e Esclarecido] (TCLE).
Caso já tenha tomado a 3a. dose contra COVID-19, por favor desconsidere este email.
Se o link acima não funcionar, tente copiar e colar o endereço abaixo no seu navegador:
[survey-uri]
Este link é único e exclusivamente seu, portanto não o divulgue para terceiros.
[Message text above will not be used in voice call invitations]

STEP 3: Conditions
Specify conditions for sending invitations:
 When the following survey is completed:
--- select a survey ---
 When the following logic becomes true:
`[rast_link_tcde_sn]=1 and [tcde_e_aceite_v2]=1 and [tcde_e_aceite_v1]=1 and [tcde_e_aceite_v2]=1`
(e.g., [age] > 30 and [sex] = "1")
[How do I use special functions?](#)
Test logic with a record: -- selecionar registro --
 Ensure logic is still true before sending invitation? [?](#)
[How to use "stop logic" to disable an automated invite](#)

STEP 4: When to send invitations AFTER conditions are met
 Send immediately
 Send on next: --select day-- at time: H:M
 Send the invitation days horas minutes
 depois the exact time that the automated invitation was triggered [?](#)
 Send at exact date/time: D-M-Y H:M

OPTIONAL: Enable reminders
 Re-send invitation as a reminder if participant has not responded by a specified time? (Times below refer to AFTER original invitation time.)
 Send every: --select day-- at time: H:M
 Send every: 6 days 0 horas 0 minutes
 Send at exact date/time: D-M-Y H:M
- E -
Recurrence: Send up to 3 times

[Save](#) [Save & Copy to...](#) [Cancel](#)





BOOST COVID19 – REDCap features used

- CRFs Project: Longitudinal database
 - 22 events

38 instruments (33 forms & 5 surveys)

Braco 1: Arm 1 Add New

Arm name: **Arm 1** Rename Arm 1

Event # [event-number]	Days Offset	Offset Range Min / Max	Event Label [event-label]	Custom Event Label [optional]	Unique event name (auto-generated) [event-name]	Event ID (auto-generated, unchangeable) [event-id]
1	-7	-0/+0	Triagem		triagem_arm_1	2919
2	0	-7/+0	Visita 1		visita_1_arm_1	2897
3	1	-0/+0	Dia 01		dia_01_arm_1	2878
4	2	-0/+0	Dia 02		dia_02_arm_1	2879
5	3	-0/+0	Dia 03		dia_03_arm_1	2880
6	4	-0/+0	Dia 04		dia_04_arm_1	2881
7	5	-0/+0	Dia 05		dia_05_arm_1	2882
8	6	-0/+0	Dia 06		dia_06_arm_1	2883
9	7	-0/+0	Dia 07		dia_07_arm_1	2884
10	15	-0/+0	Semana 2		semana_2_arm_1	2886
11	22	-0/+0	Semana 3		semana_3_arm_1	2887
12	29	-0/+0	Semana 4		semana_4_arm_1	2894
13	30	-0/+7	Visita 2		visita_2_arm_1	2909
14	43	-0/+0	Semana 6		semana_6_arm_1	2896
15	57	-0/+0	Semana 8		semana_8_arm_1	2908
16	60	-14/+14	Visita 3		visita_3_arm_1	2910
17	180	-30/+30	Visita 4		visita_4_arm_1	2911
18	360	-30/+30	Visita 5		visita_5_arm_1	2912
19	361	-361/+0	Eventos adversos		eventos_adversos_arm_1	2913
20	363	-364/+0	Informacoes extras		informacoes_extras_arm_1	2915
21	364	-363/+0	Visitas extras		visitas_extras_arm_1	2914
22	365	-365/+0	Encerramento		encerramento_arm_1	2916

Add new event Days - /

[Convert from other visits](#)

Descriptive name for this event

Custom Event Label (optional)
Example: [visit_date], [visit_id], [weight]

Instrument name	Fields	Visua PDF	Enabled as Inquerito	Instrument actions	Survey-related options
Tcle	11	📄	Enable	Choose action	
Tcle v2	10	📄	Enable	Choose action	
Identificacao	15	📄	Enable	Choose action	
Dados Demograficos	9	📄	Enable	Choose action	
Informacoes Clinicas E Vacinas	28	📄	Enable	Choose action	
SI-PNI Vacinacao Contra Covid19	12	📄	Enable	Choose action	
Recrutamento	10	📄	Enable	Choose action	
Tcle Fisico	17	📄	🟢	Choose action	📄 Survey settings + Automated Invitations
Tcle Fisico v2	17	📄	🟢	Choose action	📄 Survey settings + Automated Invitations
Avaliacao Presencial Pre-Vacinacao	45	📄	Enable	Choose action	
Elegibilidade	27	📄	Enable	Choose action	
Randomizacao	8	📄	Enable	Choose action	
Avaliacao de Seguimento	14	📄	Enable	Choose action	
Avaliacao de Seguimento 6m e 1a	22	📄	Enable	Choose action	
Pedido De Exames	8	📄	Enable	Choose action	
Coleta De Exames	15	📄	Enable	Choose action	
Vacinacao	18	📄	Enable	Choose action	
Observacao Posvacinacao	24	📄	Enable	Choose action	
Resultado Sorologico - Richet	9	📄	Enable	Choose action	
Resultado Sorologico - UND (IgG Anti-S)	9	📄	Enable	Choose action	
Resultado Sorologico - UND (IgG Anti-N)	8	📄	Enable	Choose action	
Resultado Sorologico - UND (neuralizante)	8	📄	Enable	Choose action	
Visita Extra	11	📄	Enable	Choose action	
Diagnostico confirmado de COVID-19	15	📄	Enable	Choose action	
Vacinacao Externa Contra Covid19	5	📄	Enable	Choose action	
Vacinacao Concomitante	12	📄	Enable	Choose action	
Contatos Com Participante	10	📄	Enable	Choose action	
Descegameto	8	📄	Enable	Choose action	
Vigilancia de EA	14	📄	Enable	Choose action	
Evolucao	6	📄	Enable	Choose action	
Evento Adverso	21	📄	Enable	Choose action	
Eventos Adversos Interesse Especial	17	📄	Enable	Choose action	
Encerramento	10	📄	Enable	Choose action	
Questionario Eletronico Diario	23	📄	🟢	Choose action	📄 Survey settings + Automated Invitations
Questionario Eletronico Semanal	76	📄	🟢	Choose action	📄 Survey settings + Automated Invitations
Questionario Eletronico Quinzenal	8	📄	🟢	Choose action	📄 Survey settings + Automated Invitations
Links questionarios electronicos	13	📄	Enable	Choose action	
SI-PNI descegameto	6	📄	Enable	Choose action	





BOOSTCOVID19 – REDCap features used

Instrumento de Coleta de Dados	Triagem (1)	Visita 1 (2)	Dia 01 (3)	Dia 02 (4)	Dia 03 (5)	Dia 04 (6)	Dia 05 (7)	Dia 06 (8)	Dia 07 (9)	Semana 2 (10)	Semana 3 (11)	Semana 4 (12)	Visita 2 (13)	Semana 6 (14)	Semana 8 (15)	Visita 3 (16)	Visita 4 (17)	Visita 5 (18)	Eventos adversos (19)	Informacoes extras (20)	Visitas extras (21)	Encerramento (22)
Tcle	✓																					
Tcle v2	✓																					
Identificacao	✓																					
Dados Demograficos	✓																					
Informacoes Clinicas E Vacinais	✓																					
SI-PNI Vacinacao Contra Covid19	✓																					
Recrutamento	✓																					
Tcle Fisico (Inquerito)		✓																				
Tcle Fisico v2 (Inquerito)		✓																				
Avaliacao Presencial Pre-Vacinacao		✓																				
Elegibilidade		✓																				
Randomizacao		✓																				
Avaliacao de Seguimento												✓				✓						
Avaliacao de Seguimento 6m e 1a																	✓	✓				
Pedido De Exames																						
Coleta De Exames		✓											✓					✓	✓			
Vacinacao		✓																				
Observacao Posvacinacao		✓																				
Resultado Sorologico - Richet		✓											✓				✓	✓				
Resultado Sorologico - UND (IgG Anti-S)		✓											✓				✓	✓				
Resultado Sorologico - UND (IgG Anti-N)		✓											✓				✓	✓				
Resultado Sorologico - UND (neutralizante)		✓											✓				✓	✓				
Visita Extra																					✓	
Diagnostico confirmado de COVID-19																				✓		
Vacinacao Externa Contra Covid19																				✓		
Vacinacao Concomitante																				✓		
Contatos Com Participante													✓			✓	✓	✓	✓	✓		
Descegamento													✓			✓				✓		
Vigilancia de EA																						
Evolucao																						
Evento Adverso																			✓			
Eventos Adversos Interesse Especial																			✓			
Encerramento																						✓
Questionario Eletronico Diario (Inquerito)		✓	✓	✓	✓	✓	✓	✓	✓													
Questionario Eletronico Semanal (Inquerito)										✓	✓	✓										
Questionario Eletronico Quinzenal (Inquerito)														✓	✓							
Links questionarios electronicos																				✓		
SI-PNI descegamento																				✓		





BOOSTCOVID19 – REDCap features used

- Main project (CRFs)

ID do participante	Triagem							Visita 1												Dia 01	Dia 02		
	Tcle	Tcle v2	Identificacao	Dados Demograficos	Informacoes Clinicas E Vacinais	SI-PNI Vacinacao Contra Covid19	Recrutamento	Tcle Físico	Tcle Físico v2	Avallacao Presencial Pre-Vacinacao	Elegibilidade	Randomizacao	Coleta De Exames	Vacinacao	Observacao Posvacinacao	Resultado Sorologico - Richet	Resultado Sorologico - UND (IgG Anti-S)	Resultado Sorologico - UND (IgG Anti-N)	Resultado Sorologico - UND (neutralizante)	Questionario Eletronico Diario	Questionario Eletronico Diario	Questionario Eletronico Diario	
100013 (Gloria Dor) Vac: 28-10-2021	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
100014 (Gloria Dor) Vac: 28-10-2021	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
100016 (Gloria Dor) Vac: 28-10-2021	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗
100017 (Gloria Dor) Vac: 28-10-2021	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
100018 (Gloria Dor) Vac: 28-10-2021	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
100019 (Gloria Dor) Vac: 28-10-2021	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
100021 (Gloria Dor) Vac: 28-10-2021	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
100022 (Gloria Dor) Vac: 28-10-2021	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
100023 (Gloria Dor) Vac: 28-10-2021	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
100024 (Gloria Dor) Vac: 28-10-2021	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
100025 (Gloria Dor) Vac: 28-10-2021	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
100026 (Gloria Dor) Vac: 28-10-2021	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
100036 (Gloria Dor) Vac: 01-11-2021	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
100037 (Gloria Dor) Vac: 01-11-2021	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Imported data via API
(PHP script triggered on first redcap project)

On-site filled forms

Data import tool
(.csv from laboratory)

Surveys with Automated invitation (SMS or Email)





BOOSTCOVID19 – REDCap features used

Enable optional modules and customizations

- Modify Repeatable instruments and events [?](#)
- Enable Auto-numbering for records [?](#)
- Disable Scheduling module (longitudinal only) [?](#)
- Enable Randomization module [?](#)
- Disable Designate an e-mail field for communications (including survey invitations and alerts) [?](#)
Field currently designated: **elg_email** ("Confirmação do email do participante")

[Additional customizations](#)

Settings displayed to Administrators only:

- Modify Twilio SMS and Voice Call services for surveys and alerts [?](#)
- Enable Mosio SMS services for surveys and alerts [?](#)
- Enable SendGrid Template e-mail services for Alerts & Notifications [?](#)

Repeatable instruments

Results sent automatically

Form Display Logic

Twilio SMS and Voice Call services

To begin utilizing the Twilio SMS and Voice Call services in this project, you have the Twilio service enabled, the Configuration popup will allow you to select 1) surveys and survey invitations, or 2) surveys and survey invitations. If using Twilio for an instrument as a survey in this REDCap project, after which you may want to perform an analysis on all your surveys to determine if they can be used as an analysis.

Go to [Configure settings](#) ou [Analyze surveys for SMS & Voice](#)

SMS service – option to sending links to daily and weekly questionnaires

	Avaliacao de Seguimento 6m e 1a	Coleta De Exames	Resultado Sorologico - Richet	Resultado Sorologico - UND (IgG Anti-S)	Resultado Sorologico - UND (IgG Anti-N)	Resultado Sorologico - UND (neutralizante)	Contatos Com Participante	Contatos Com Participante	Evento Adverso	Eventos Adversos Interesse Especial	Diagnostico confirmado de COVID-19	Vacinacao Externa Contra Covid19	Vacinacao Concomitante
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> +	<input checked="" type="checkbox"/> +	<input checked="" type="checkbox"/> +	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> +
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> +	<input checked="" type="checkbox"/> +	<input checked="" type="checkbox"/> +	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> +
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> +	<input checked="" type="checkbox"/> +	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> +	<input checked="" type="checkbox"/> +	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> +
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> +	<input checked="" type="checkbox"/> +	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> +
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> +	<input type="checkbox"/>	<input checked="" type="checkbox"/> +	<input type="checkbox"/>	<input checked="" type="checkbox"/> +	<input type="checkbox"/>	<input checked="" type="checkbox"/> +
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> +	<input checked="" type="checkbox"/> +	<input checked="" type="checkbox"/> +	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> +
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> +	<input checked="" type="checkbox"/> +	<input checked="" type="checkbox"/> +	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> +
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> +	<input checked="" type="checkbox"/> +	<input checked="" type="checkbox"/> +	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> +
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> +	<input checked="" type="checkbox"/> +	<input checked="" type="checkbox"/> +	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> +



Margareth Catoia

The use of REDCap beyond surveys and typical databases: efficiency in research



BOOSTCOVID19 – REDCap features used

■ Randomization project

Complete!

Not complete?

Enable optional modules and customizations

- Enable Repeatabe instruments ?
- Enable Auto-numbering for records ?
- Enable Scheduling module (longitudinal only) ?
- Disable Randomization module ?
- Enable Designate an e-mail field for contact

Additional customizations

Settings displayed to Administrators only:

- Enable Twilio SMS and Voice Call service
- Enable Mosio SMS services for surveys
- Enable SendGrid Template e-mail service

Randomizacão

Editing existing ID do participante **106197**. Lucas Ferreira Santos

ID do participante 106197

Coorte: Coronavac
Participante FOI INCLUÍDO no subestudo de imunogenicidade? Sim

Randomização

Coorte *Cohort* Coronavac Astrazeneca Pfizer Teste/Treinoamento

Foi INCLUÍDO no subestudo de imunogenicidade? Sim Não

Data da randomização *Randomization date* 12-12-2023 D-M-Y

Vacina randomizada *Randomized vaccine* mizar



BOOSTCOVID19 – REDCap features used

REDCap

Usuário: margareth.catoia
Sair

Meus Projetos ou Centro de Controle
REDCap Messenger
Contactar Administrador do REDCap
View project as user: -- select a user --
Enter PID to go to project

Project Home and Design

Página Inicial · Configurações
Designer · Dictionary · Codebook
Project status: **Produção**

Coleta de Dados

Survey Distribution Tools
Agendamento
Painel de Status de Registro
Adicionar/Editar Registros

Aplicativos

Project Dashboards
Alerts & Notifications
Multi-language Management

Fundação Oswaldo Cruz - FIOCRUZ

Boost01 - CRFs e Diário PID 331

Project Dashboards

VIDEO: How to use Project Dashboards (23 min)

+ Create New Dashboard My Project Dashboards

Project Dashboards are pages with dynamic content that can be added to a project. They can utilize special Smart Variables called **Smart Functions, Smart Tables, and Smart Charts** that can perform aggregate mathematical functions, display tables of descriptive statistics, and render various types of charts, respectively. Project dashboards have two basic attributes: a title and a body. User access privileges are customizable for each dashboard, and anyone with Project Design privileges can create and edit them. A wizard is provided on the Project Dashboard creation page to help you easily construct the syntax to add Smart Functions, Smart Tables, or Smart Charts to your dashboards, and a list of helpful examples is also included. [Saiba mais](#)

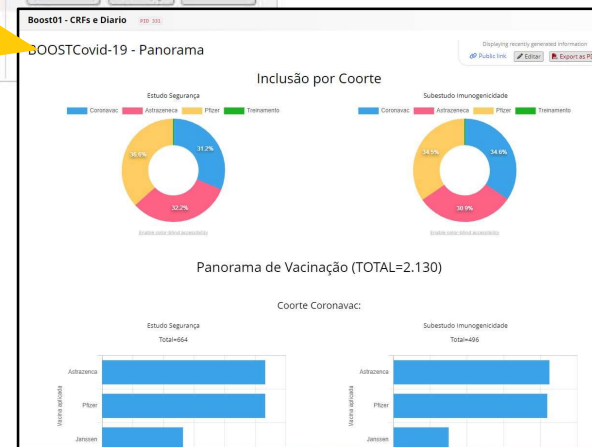
Dashboard name	Dashboard options
1 BOOSTCovid-19 - Panorama	Public View Editar Copy Excluir
2 Contagem de Resultados Laboratoriais	View Editar Copy Excluir

+ Create New Dashboard

Boost01 - CRFs e Diário PID 331

Contagem de Resultados Laboratoriais

	V1	V2	V4	V5
Fichas de coleta com data preenchida	1,435	1,248	1,169	1,072
Números de identificação da amostra preenchidos	1,435	1,245	1,168	1,071
Resultados Anti-S	1,435	1,258	1,176	1,070
Resultados Anti-N	1,435	1,258	1,176	1,044
Resultados Neutralizante	1,435	1,257	1,165	1,059



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