

2nd International Conference on

HIV/AIDS, STDs, & STIs

Las Vegas, USA October 27-29, 2014



***Challenges in Real-Life
Implementation of Public
Vaccination Programs in
Developing Countries and
Strategies to Increase
Immunization Coverage***

Agenda

- Characterize the health care network in Brazil – The Unified Health System
- Present challenges in real life implementation of public vaccination programs and the most valuable answers
- Present a vaccination experience in the municipality of Campos dos Goytacazes, State of Rio de Janeiro, Brazil

BRASIL

Mapa político



BRAZIL

- 200.000.000 inhabitants
- Great cultural and economic diversity
- The Primary health care assistance is based on prevention
- Vaccination is the leading strategy of prevention

Unified Health System (SUS)

- Implemented In October / 1988
- It's a health plan totally free of charge in all levels of complexity.
- It carries one of the largest immunization programs in the world - 40 years of success
- The immunization program displays high rates of immunization coverage and elimination of various diseases (eg. polio, measles)





Strength Of The Prevention – Vaccines
(40 Years Of The National Immunization Program)



Ministério da
Saúde

G O V E R N O F E D E R A L
BRASIL
PAÍS RICO E PAÍS SEM POBREZA

PROGRAMA MUNICIPAL DE IMUNIZAÇÃO

O município de Campos é hoje portador do maior Programa de Imunização do Brasil, pois foi criada uma rede de cobertura vacinal que se compara a países de primeiro mundo, e os indicadores vem ao encontro destas bem sucedidas intervenções em saúde pública. Este material fornece o mais completo guia para a vacinação no nosso município.

VACINAS EXCLUSIVAS

VACINA	LOCAL
Vacina pneumococica 13 valente (prevenar)	casa de prevenção de farol, crtca 1 e 2 epidemiologia
Vacina contra o HPV	Epidemiologia, (1ª dose na escolas) e Casa de Prevenção de Farol
vacina contra varicela	em Creches Públicas e Privadas após surtos
vacina contra hepatite A	Epidemiologia (todos os dias) CRTCA polo I e II, Casa de Prevenção de Farol Centro de Saúde de Guarus (segundas e sextas)

The largest immunization Program in Brazil
(Use of financial resources of oil royalties)



EPIDEMIOLOGIA



Secretaria Municipal de Saúde



Vigilância Epidemiológica

Campos possui o maior Programa de Imunização do Brasil

INCLUSION OF NEW VACCINES IN CAMPOS DOS GOYTACAZES*

INCLUSION OF NEW VACCINES BY THE MINISTRY OF HEALTH

- 2009 – Pneumococcus conjugated 7-valent vaccine (PCV-7)
- 2010 – (PCV-13 and quadrivalent HPV vaccine for girls 11-15 years.
- 2011 – Hepatitis A vaccine (< 2y)
- 2012 – Vaccines room for travelers
- 2012 – Varicella-zoster vaccine (< 3y)
- 2014 – quadrivalent HPV vaccine for boys – 11-13 years old.

- 2010 – Pneumococcus conjugated 10-valent vaccine (PCV-10)
- 2010 – Meningococcus C conjugated vaccine
- 2013 – varicella zoster-vaccine (15 months)
- 2014 – HPV quadrivalent vaccine in girls 11-13 years
- 2014 – Hepatitis A vaccine

* The inclusion of new vaccines in Campos dos Goytacazes with own resources occurs before the Ministry of health, so when it becomes available in all over the country, we use our own financial resources to buy a new vaccine that was not yet introduced by the ministry of health

Safety and Tolerability of a 13-Valent Pneumococcal Conjugated Vaccine Distributed in the Public Immunization Program of the Municipality of Campos dos Goytacazes, Rio de Janeiro, Brazil

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Received: September 13th, 2012; revised October 25th, 2012; accepted November 5th, 2012

ABSTRACT

From september to december, 2010, we have assessed the frequency and occurrence of adverse events to Pneumococcal conjugated 13-valent vaccine (PCV-13) in the Public vaccination program of the municipality of Campos dos Goytacazes, State of Rio de Janeiro, the unique city in Brazil that has introduced this vaccine in its immunization schedule. This study analyzed 1001 toddlers who have received PCV-13 at 3, 5 and 7 months and a booster dose at 12 months. We observed a total of 514 local and systemic events in 303 subjects (30.2% of 1001 infants). The most reported systemic events were irritability (18.8%) and fever < 38.5°C (17.1%), followed by fever > or = 38.5°C (8.8%), loss of appetite (8.4%). Erythema (11.2%) and local pain (9.4%) were the most reported local events. Other events reported were diarrhea (6.2%), increased sleep (5.1%), edema and induration (4.8%), decreased sleep (4.3%), vomiting (1.4%), eruption (1.2%) urticaria (0.8%), prurience (0.8%), lymphadenopathy (0.2%) and hypersensitivity reaction (0.2%). There wasn't any reported case of convulsion or Hospital admission. When stratified by each dose, irritability (systemic) and erythema (local) were the most common events reported at the first and fourth dose, although fever < 38.5°C (systemic) and pain (local) were the most common at second and third doses. Results were close to those encountered in product monograph. In our study, PCV-13 was secure in pneumococcal disease prevention and well tolerated.

Keywords: *Streptococcus pneumoniae*; PCV-13, Adverse events; Pneumococcal Disease

EVALUATION OF THE EFFECTIVENESS OF A 13-VALENT PNEUMOCOCCAL CONJUGATED VACCINE IMPLEMENTED IN THE MUNICIPALITY OF CAMPOS DOS GOYTACAZES, STATE OF RIO DE JANEIRO, BRAZIL.

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INTRODUCTION: *Streptococcus pneumoniae* is usually carried in the nasopharynx of healthy people, but occasionally leads to pneumococcal diseases (PD), such as meningitis, pneumonia, otitis, sinusitis and bacteremia. Annually, World Health Organization (WHO) estimates the occurrence of one and a half million of deaths in children under five years by PD, mainly in poor countries. In Brazil, the age group that accounts for the major rates of morbidity and mortality by PD is the group of children under two years old. A 13-valent Pneumococcal conjugated vaccine (PCV-13) was introduced in public vaccination program of the municipality of Campos dos Goytacazes, Brazil, in September, 2010, replacing the 7-valent pneumococcal conjugated vaccine (PCV-7), which was introduced in this municipality in 2009.

OBJECTIVES: Evaluate the effectiveness of the PCV-13, implemented in the municipality of Campos dos Goytacazes, State of Rio de Janeiro, Brazil, three years after the introduction of this vaccine to all children under 2 years old.

METHODS: Campos dos Goytacazes, the largest municipality in State of Rio de Janeiro, Brazil, has 4.032 Km² of territorial distribution (Figure 1). Population is about 463.545 individuals, according to Government 2010 official census, and the economy is supported by petroleum extract.

This municipality was the first and unique municipality to use the PCV-13 in Brazil. The vaccination was used in the Municipality free of charge, with schedule of two doses of vaccine applied with less than one year old or a dose applied over one year. Vaccines were administered for free to all children.

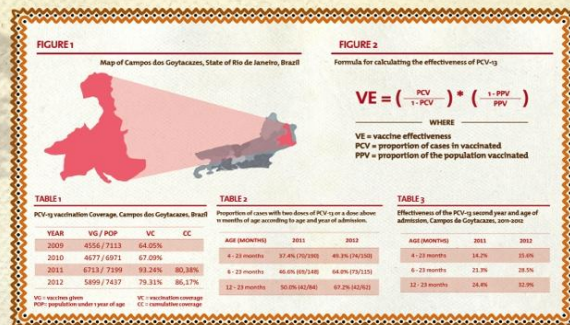
Effectiveness was calculated using a formula that combined Proportion of cases in vaccinated (PCV) and the proportion of population vaccinated (PPV) in 2011 and 2012 (Figure 2). We consider a case vaccinated when received two doses of vaccine with less than one year or one with a dose when it was received in the second year.

RESULTS AND DISCUSSION: Vaccination coverage is shown in table 1. The cumulative immunization coverage for children under two years in 2011, by the sum of the cohorts vaccinated in 2010 and 2011 was 80.38% and the cumulative immunization was 86.17% for 2012 by the sum of the cohorts vaccinated in 2011 and 2012 (table 1). In the period 2011-2012, were hospitalized in four hospitals in the city 383 young children 0-23 months of age with diagnosis of pneumonia. In 2011, 212 cases were admitted and 2012, 165 (table 2). The calculated effectiveness of pneumococcal conjugate vaccine in 2011 and 2012 were, respectively, 14.2 and 15.6% (4-23 months); 21.3% and 28.5% (6-23 months); and 24.4% and 32.9% (12-23 months). (table 3).

CONCLUSION: PCV-13 was effective and reduced the incidence of pneumonia in children vaccinated. These data are supported by international studies, which reached similar outcomes or even above 80%.

REFERENCES

- [1] World Health Organization, "Pneumococcal Conjugate Vaccine for Childhood Immunization," 2007. <http://www.who.int/news/2007/new0212>
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- [3] Overstuen WA, Bernier RM, Donaldson TJ et al. Field evaluation of vaccine efficacy. Bull World Health Organ 63:1095-1098, 1985.
- [4] Cohen AL, Taylor T, Farley MM, Schaffner W, Leshner LG, et al (2012) An Assessment of the Screening Method to Evaluate Vaccine Effectiveness: The Case of 7 Valent Pneumococcal Conjugate Vaccine in the United States. PLoS ONE 7(8): e41785. doi:10.1371/journal.pone.0041785



This study is being conducted by the municipality of Campos dos Goytacazes and Pfizer®



WSPID 2013
Cape Town, South Africa, November

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INTRODUCTION: Brazil is now considered to have an intermediate endemicity to hepatitis A virus (HAV) infection. HAV prevalence has been declining in several Brazilian regions leading to an increase in the number of susceptible individuals with risk of being HAV infected. Under this circumstance, Hepatitis A vaccination was introduced in July 30, 2014, in a single dose regimen.

OBJECTIVES: This study aimed to assess the epidemiology of hepatitis A in Campos dos Goytacazes, a city located at the Southeastern Brazil. This municipality is the only Brazilian city that has implemented hepatitis A vaccination since 2011 for all children between 1 and 2 years. Results from this study will permit to characterize the future impact that immunization will bring about the epidemiology of this disease in this county

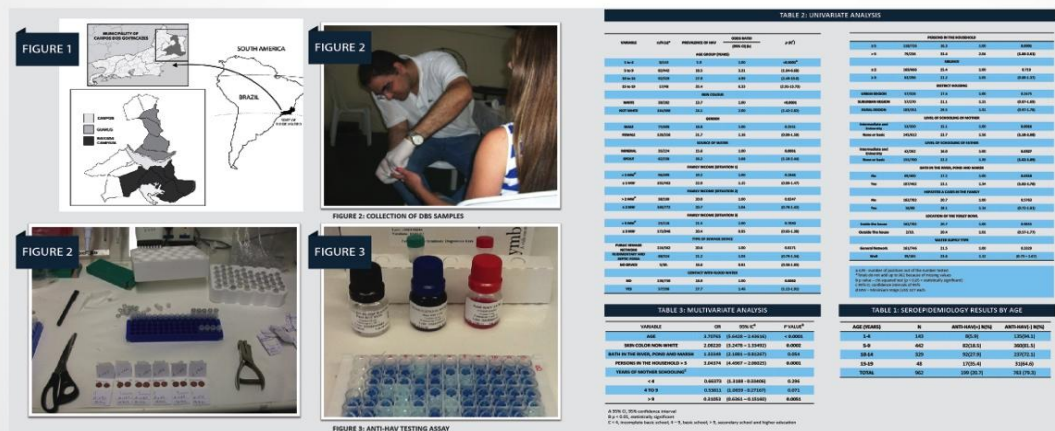
METHODS: Campos dos Goytacazes is the municipality with the largest jurisdiction in the state of Rio de Janeiro, comprising 4,032 Km² of territorial distribution, with an estimated population of 477,208 individuals according the last demographic census. The economy is supported by petroleum extract, which represents 80% of the Brazilian production.

Individuals under the age of 19 years were randomly selected at public and private schools from all 14 districts of this county. Sample size calculation was based on a 40% HAV estimated seroprevalence (de Alencar Ximenes et al. 2008), with a 5% precision rate and a 99% confidence level. The formula for sample size determination [http://www.openepi.com] yielded a total of 1033 participants.

After formal consent, blood spot samples (DBS) were obtained (Fig. 2) for subsequent anti-HAV testing (Bioelisa HAV IgG, Symbiosis) (Fig. 3). Each participant or legal tutor was submitted to an interview using a standardized questionnaire. The EpiData[®] version 3.1 software and the program "R Archive Network" were used for univariate and multivariate data analysis.

From an initial sample set of 1,033 children and adolescents, 71 individuals have to be excluded due to one or more the following reasons: history of hepatitis A vaccination, consent form did not signed, being resident of another county, and loss of sample.

RESULTS AND DISCUSSION: The overall prevalence of anti-HAV was 20.7%, being 94.1% of children under the age of five susceptible to HAV infection. Table 2 summarizes the results of univariate analysis, and Table 3 the results of multivariate analysis.



CONCLUSIONS: Results obtained so far supports the municipality decision to introduce Hepatitis A vaccination in children before school admittance, and corroborate with data from other Brazilian seroprevalence studies that have been shown that a large proportion of children under the age of five are susceptible to HAV infection. The introduction of a hepatitis A vaccination program may be an important strategy for controlling HAV infection in Brazil.

Hepatitis A study, the first one in Brazil in a municipality that introduced the vaccine

Circulation of Hepatitis A vaccine was reduced in 80%



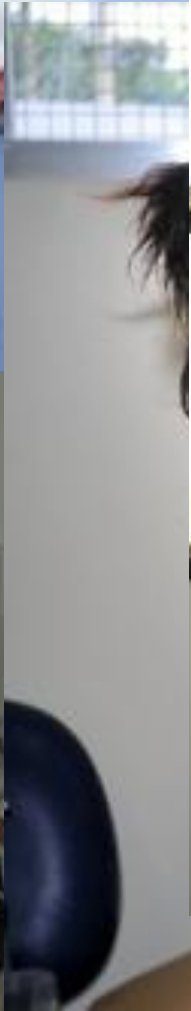
Challenge 1 – The Political Decision

- The main challenge
- Experts, researchers and appointed directors have to be able to convince their government representatives to the financial and political returns in vaccination
- Without political support, no project can be implemented



Challenge 2 – Provide Education in Health

- Consider the schools the most important place to learn about health
- Introduce programs and provide health inside the school.
- Provide advertising Campaign, mainly in schools
- “Health in school programs”



Advertising Campaign

- Sensitization and mobilization of the importance of the vaccine

Each girl is unique, but all need protection.

Vacinação contra o HPV

Disque Saúde 136

Vacinação para quem precisa de mais proteção. Um direito seu assegurado pelo SUS.

Meninas de 11 a 13 anos devem ser vacinadas

Fique atento ao período de vacinação na escola ou vá a uma unidade de saúde

MELHORAR SUA VIDA. NOSSO COMPROMISSO

Secretarias Estaduais e Municipais de Saúde SUS Ministério da Saúde BRASIL

40 ANOS PROGRAMA NACIONAL DE IMUNIZAÇÕES

Toda menina e toda mulher precisam de proteção.

É importante prevenir o câncer do colo de útero. Por isso, se você tiver entre 25 e 64 anos faça os exames preventivos. E se sua filha tiver entre 11 e 13 anos deve ser vacinada contra o HPV. Fique atenta ao período de vacinação na escola ou vá a uma unidade de saúde.

Vacinação para quem precisa de mais proteção. Um direito seu assegurado pelo SUS.

MELHORAR SUA VIDA. NOSSO COMPROMISSO

Secretarias Estaduais e Municipais de Saúde SUS Ministério da Saúde BRASIL

40 ANOS PROGRAMA NACIONAL DE IMUNIZAÇÕES

Challenge 3 – Supply Epidemiological data

- Essential for the introduction of new vaccines
- Used to evaluate several questions, like vaccine coverage, reduction on the incidence of a disease
- Vaccination records on the Web are being used for us since 2010.
- It allows calculation of immediate vaccination coverage



Relatório

Escolha de Relatório

Vacinados por Vacina

Instância

Municipal

CABO FRIO

Regional Municipal

EM CABO FRIO

Distrito Sanitário

05 AN-CABO FRIO

Estab. Saúde / Unid. Virtual

CLINICA SANTA HELENA

Vacinas

Estratégia

1 - Rotina

Imunobiológicos

Todos

Nenhum

- Pneumocócica 10V - Pncc10V
- Pneumocócica 7V - Pncc7V
- Poliomielite inativada - VIP
- Poliomielite oral - VOP
- Raiva em cultivo celular Vero - Vero
- Tríplex bacteriana - DTP

Motivo Indicação

Selecione

Especialidade

Selecione

Atendimento

Grupo de Atendimento

7 - População geral

População

 Residentes + Não Residentes Residentes Não Residente todos outro país outro estado outro município

Selecione

Situação

 Gestantes Comunicantes de Hanseníase

Faixa Etária

- <10A
- <1Ano
- <2 ANOS
- <7A
- >=10A
- >=12 ANOS
- >=12M
- >=12M a 15M
- >=12M a 23M
- >=12M a 4A11M29D
- >=13M

Outros

Laboratório

Selecione

Bairro

Período

Início

01/09/2013

Fim

30/ /

Ordenação

 Vacina Laboratório Bairro Motivo Indicação Especialidade

Gerar Relatório como

 Pdf Bloco de Notas Rich Text Format Excel

Gerar Relatório

Fechar

Os itens em vermelho são obrigatórios

Voltar

Challenge 4 – separate what is myth and reality

- Dispel myths such as the HPV vaccine only for virgin girls
- Resolve religious issues

The screenshot shows the Gnotícias website interface. At the top, there is a navigation bar with categories like 'g+', 'bíblia', 'notícias', 'música', 'vídeos', 'estudos', 'colunas', and '+ sites'. Below this is a secondary navigation bar with links for 'HOME', 'ENVIAR NOTÍCIA', 'PROJETOS SOCIAIS', 'MISSÕES', 'BRASIL', 'INTERNACIONAL', 'ESPORTES', and 'POLÍTICA'. The main content area features a breadcrumb trail: 'Home » Brasil, Ciência & Saúde, Destaque'. The article title, 'Evangelical mothers were boycotting HPV vaccination', is highlighted in an orange box. Below the title, it is attributed to 'Por Dan Martins em 10 de fevereiro de 2014' with tags for 'Cancer, câncer no colo do útero, Evangélicas, HPV, Ministério da Saúde, papilomavírus humano'. A social sharing section includes '44 Comentários', 'ENVIAR', 'IMPRIMIR', 'EMAIL', 'SHARE', 'ORÇUTAR', and 'TWITTER', along with a 'LINK PERMANENTE' field containing the URL 'http://goo.gl/rx9LZJ'. The article preview shows a hand holding a syringe and a vial, with text stating: 'Recentemente, o Ministério da Saúde brasileiro lançou uma campanha nacional para vacinação de adolescentes contra o papilomavírus humano (HPV), vírus tido pelos...'. To the right, there is a yellow box for 'Notícias Gospel em seu email' with a sign-up form and an 'Assinar' button.

Gnotícias
por gospel.com.br

g+ bíblia **notícias** música vídeos estudos colunas + sites ▾

HOME ENVIAR NOTÍCIA PROJETOS SOCIAIS MISSÕES BRASIL INTERNACIONAL ESPORTES POLÍTICA

Home » Brasil, Ciência & Saúde, Destaque

Evangelical mothers were boycotting HPV vaccination

Por Dan Martins em 10 de fevereiro de 2014
Tags: Cancer, câncer no colo do útero, Evangélicas, HPV, Ministério da Saúde, papilomavírus humano

44 Comentários ▾ ENVIAR IMPRIMIR EMAIL SHARE ORÇUTAR TWITTER

DEIXE SUA OPINIÃO ENVIAR IMPRIMIR EMAIL SHARE ORÇUTAR TWITTER LINK PERMANENTE VISITAS

Recentemente, o Ministério da Saúde brasileiro lançou uma campanha nacional para vacinação de adolescentes contra o papilomavírus humano (HPV), vírus tido pelos

Notícias Gospel em seu email

Receba Notícias Gospel em seu email **gratuitamente!** Insira seu email:

Radical groups against vaccinations¹



The best weapon is the INFORMATION

“Generally, vaccines are among the safest biological products for human use, providing undoubted benefits for public health¹”

“The public should be properly informed about the occurrence of adverse events following vaccination, avoiding sensationalized news and precipitates that can undermine confidence in the vaccine and provide disastrous results at the population level¹”



ELEIÇÕES 2014

Veja o resultado da apuração do 2º turno

Edição do dia 14/09/2014

14/09/2014 21h57 - Atualizado em 14/09/2014 21h58

Governo e os médicos garantem: a vacina contra HPV é segura

Meninas tiveram reações adversas após tomar vacina em escola de SP. Especialistas descartam que problemas tenham sido causados por vacina.

Tweetar 186

Recomendar 3 mil



The most popular TV Show of Brazil reported In september, 2014 that 3 girls were admitted to a hospital in the municipality of Bertioga, State of Sao Paulo with flaccid paralysis following vaccination against HPV. Both were from the same school and took the vaccine together.

All examinations ruled out any relationship to the vaccine

Authorities said there was a collective stress

The girls recovered without any sequela

The media and the sensationalism

Jez garotas têm reação à vacina contra o HPV e são hospitalizadas

Jez jovens foram atendidas no Hospital de Bertiooga com dores no corpo. Prefeitura diz que caso está sendo investigado e vacinação deve continuar.

G1 Santos

Tweetar 171

Recomendar 620



Mariana (dir.) e Luana (esq.) estão internadas (Foto: Arquivo Pessoal / Fabíola Freitas de Lima)

September 2014



ISTOÉ
independente

BUSCAR

ASSUNTOS

CAPA NOTÍCIAS COLUNAS E BLOGS MULTIMÍDIA

CAPA

ISTOÉ COMPORTAMENTO

COMPORTAMENTO | N° Edição: 2338 | 12.Set.14 - 20:00 | Atualizado em 25.Out.14 - 00:45

O susto da vacina

A hospitalização de 11 garotas em Bertiooga (SP), com efeitos colaterais após a vacinação contra o HPV, deixa pais preocupados, mas autoridades garantem que o imunizante é seguro

Paula Rocha (paularochoa@istoe.com.br), de Bertiooga (SP), e Mônica Tarantino (monica@istoe.com.br)

HPV vaccination Coverage before the TV Show (1st in March)

Estratégia de Vacinação contra HPV

Vacinômetro I
Total Brasil - 21



Desenvolvido por: Ministério

Estratégia de Vacinação

Vacinômetro
RIO DE JANEIRO



Desenvolvido por: Ministério da Saúde DATASUS - RJ

Estratégia de Vacinação contra HPV

Vacinômetro D1
CAMPOS DOS GOYTACAZES - 2014

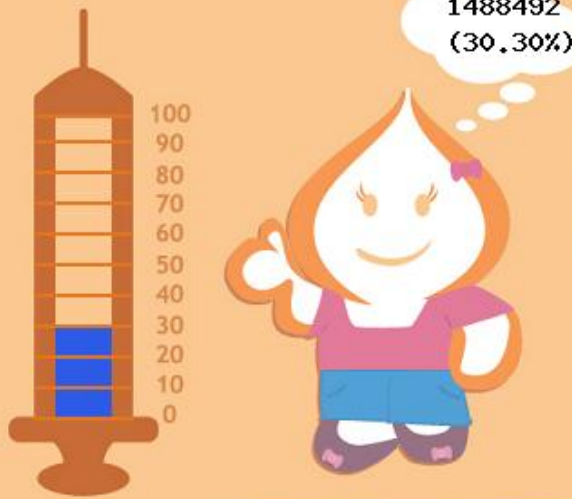


Desenvolvido por: Ministério da Saúde DATASUS - RJ

HPV vaccination Coverage after the TV Show (2st in september)

Estratégia de Vacinação contra HPV

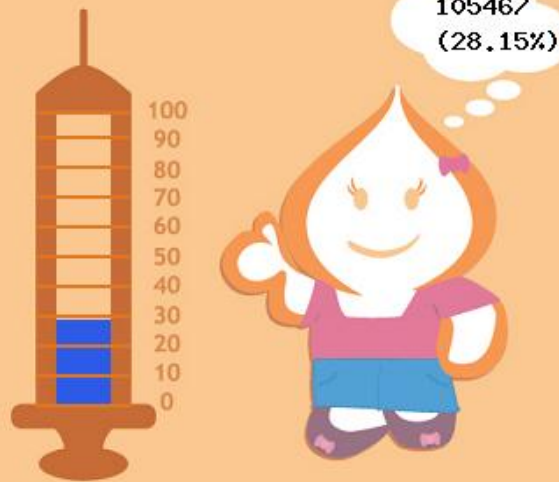
Vacinômetro D2
Total Brasil - 2014



Desenvolvido por: Ministério da Saúde DATASUS

Estratégia de Vacinação contra HPV

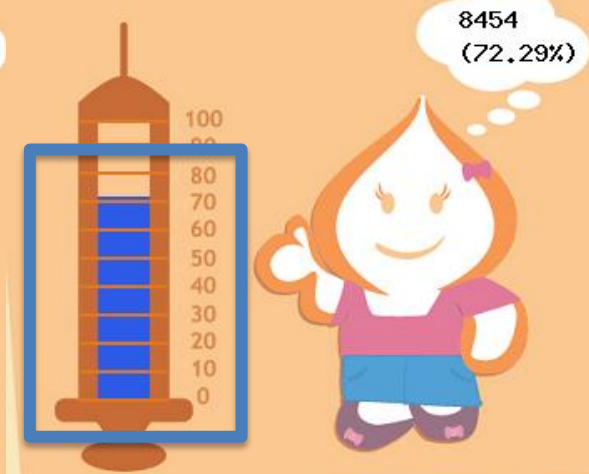
Vacinômetro D2
RIO DE JANEIRO - 2014



Desenvolvido por: Ministério da Saúde DATASUS

Estratégia de Vacinação contra HPV

Vacinômetro D2
CAMPOS DOS GOYTACAZES - 2014



Desenvolvido por: Ministério da Saúde DATASUS - RJ

The coverage is greater than all the national and state averages



Challenge 5 – cold chain

- More quantity of vaccines require a better cold chain structure
- Provide adequate cold chain to maintain the quality of vaccines
- Government have to supply money to cold chain investments and training



Before



After

What

Brazil crushed by Germany in the most humiliating defeat in World Cup history

1-7

Floored: the Brazil defence look shocked as Thomas Muller puts Germany ahead AP



MARTIN SAMUEL

Chief Sports Writer
reports from Belo Horizonte

THERE must have been a moment when even those watching in their white Mannschaft shirts inside Estadio Mineirao wished it would end. Germans are only human, after all.

Admittedly, the 11 on the pitch seemed to be transcending that state at times, but those looking on, the mortals — they must have felt it like the rest of us.

It was simply too much. Too brutal. Too excruciating. Too

TURN TO PAGE 78, COL 1

IMPORTANT INFORMATION

NEGLIGENCE AT HOSPITAL OR DOCTORS?

Compensation could be available

Conclusions – What we cannot forget?

1. Vaccination is always in constant changes
2. Government and the health care workers have to supply information to population
3. The pediatrician are extremely important in the convincement of the importance of vaccination
4. health professionals must respond quickly against the sensationalism of the media and internet
5. We cannot do public health without current epidemiological data
6. Political support is essential

Thank you!!



charbellkury@hotmail.com