



2018
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How to improve access to treatment in HCV patients?

The Egyptian Model

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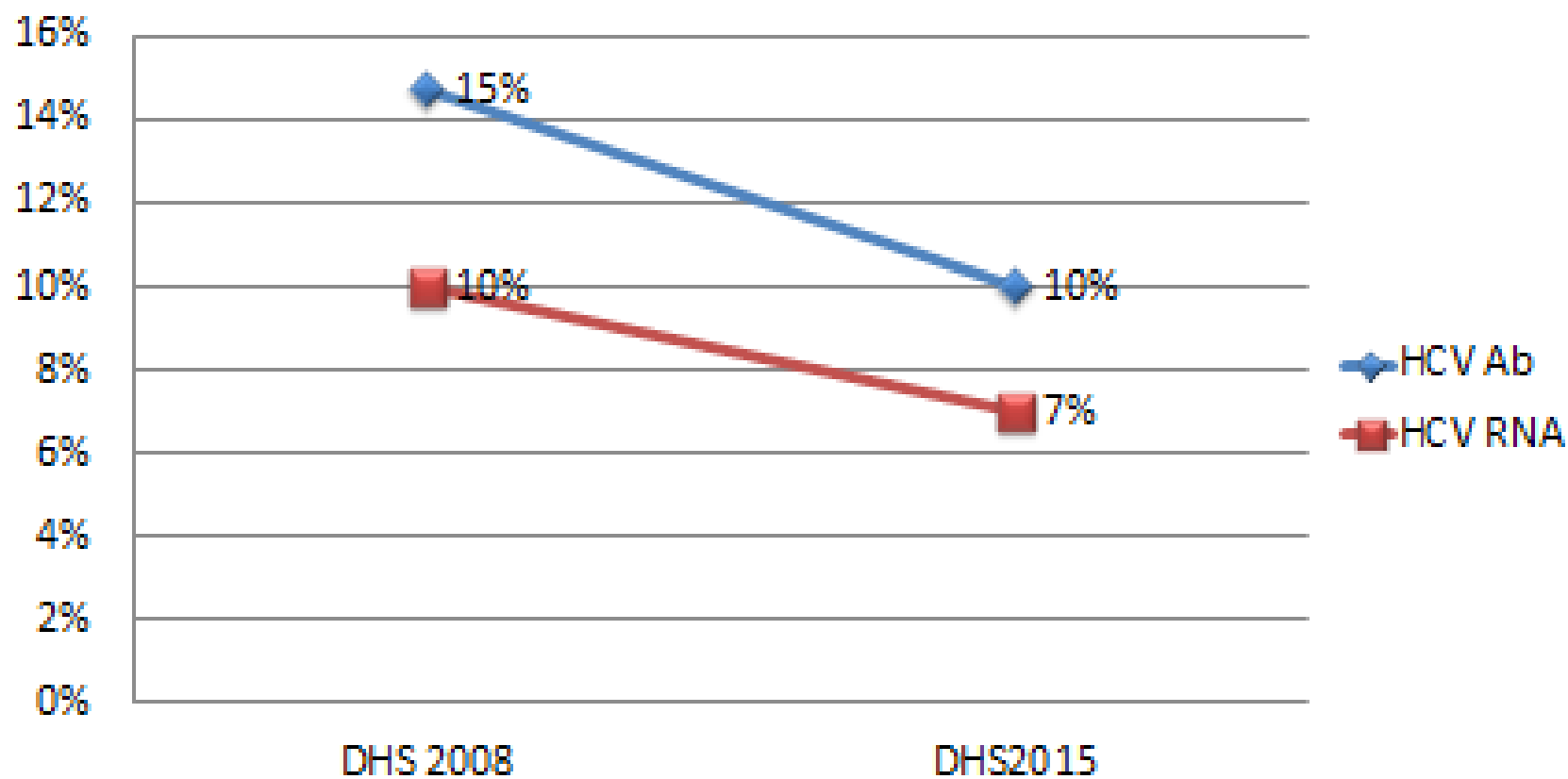
Professor of Hepatogastroenterology

TBRI- Egypt

- Hepatitis C virus (HCV) infection is a major public health burden in Egypt, where it bears the highest prevalence rate in the world (*Blach et al , 2016*)
- The National Campaign for the Parenteral Treatment of Schistosomiasis
- Nosocomial infection

HCV prevalence (DHS 2008-2015)

For Age group 15-59 years old



Until 2006, Egypt did not have a comprehensive

national program for control of viral hepatitis

- No large nationwide survey for the disease
- No national guidelines for treatment
- Health insurance did not cover HCV therapy
- Limited infection control program

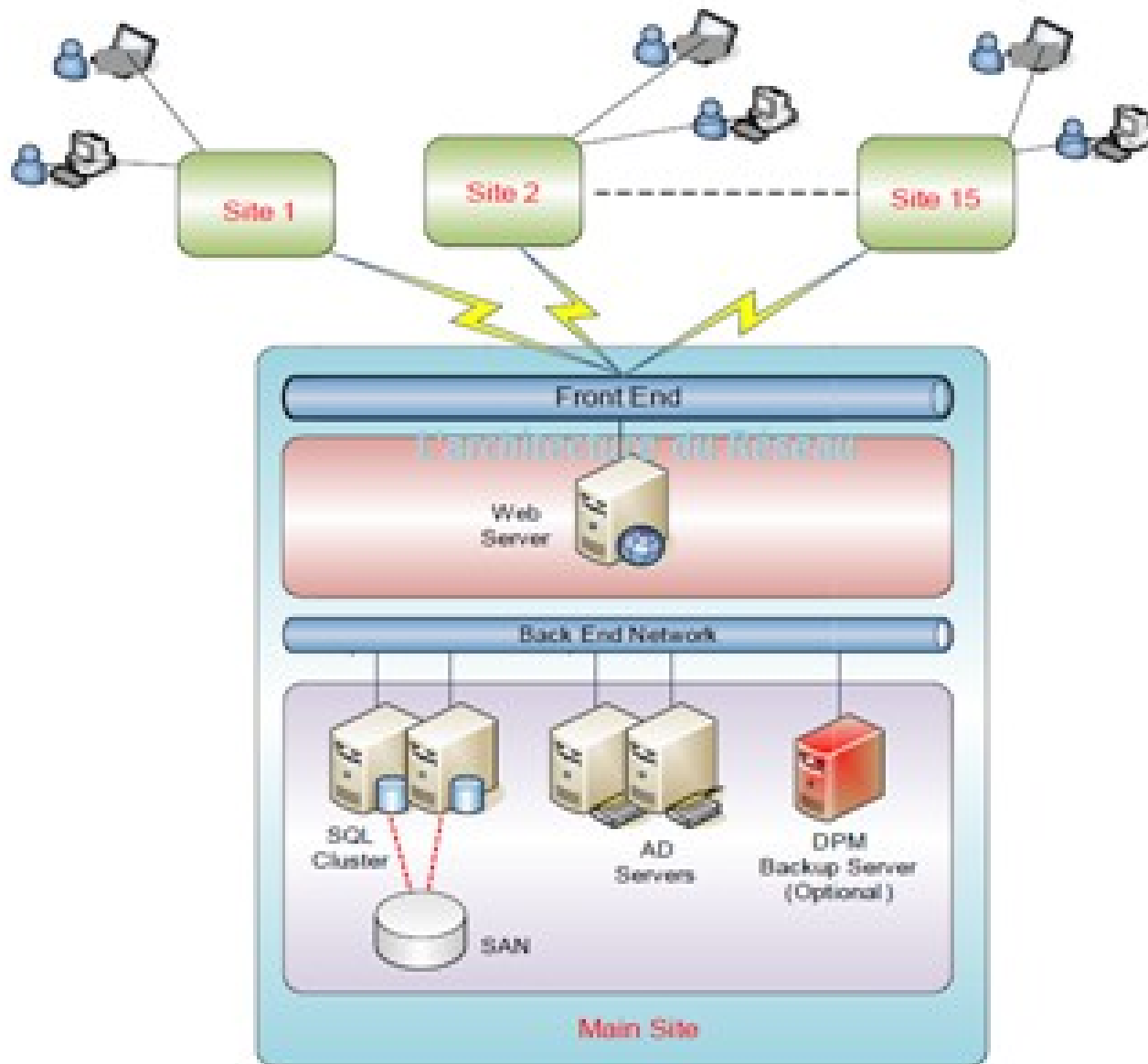
Egypt's national response to the HCV epidemic

- The creation of the National Committee for the Control of Viral Hepatitis - NCCVH (2007)
- The creation of the Egyptian National Control Strategy for Viral Hepatitis (2008)
- Trial for standardization of treatment protocols by putting national guidelines for HCV treatment

A novel administrative solution that was innovated for the first time in the health care setting in Egypt

- A collection of network data of viral hepatitis treatment units was established, server located in Cairo
- The Network contains clinical information about patients at registration and during treatment for HCV

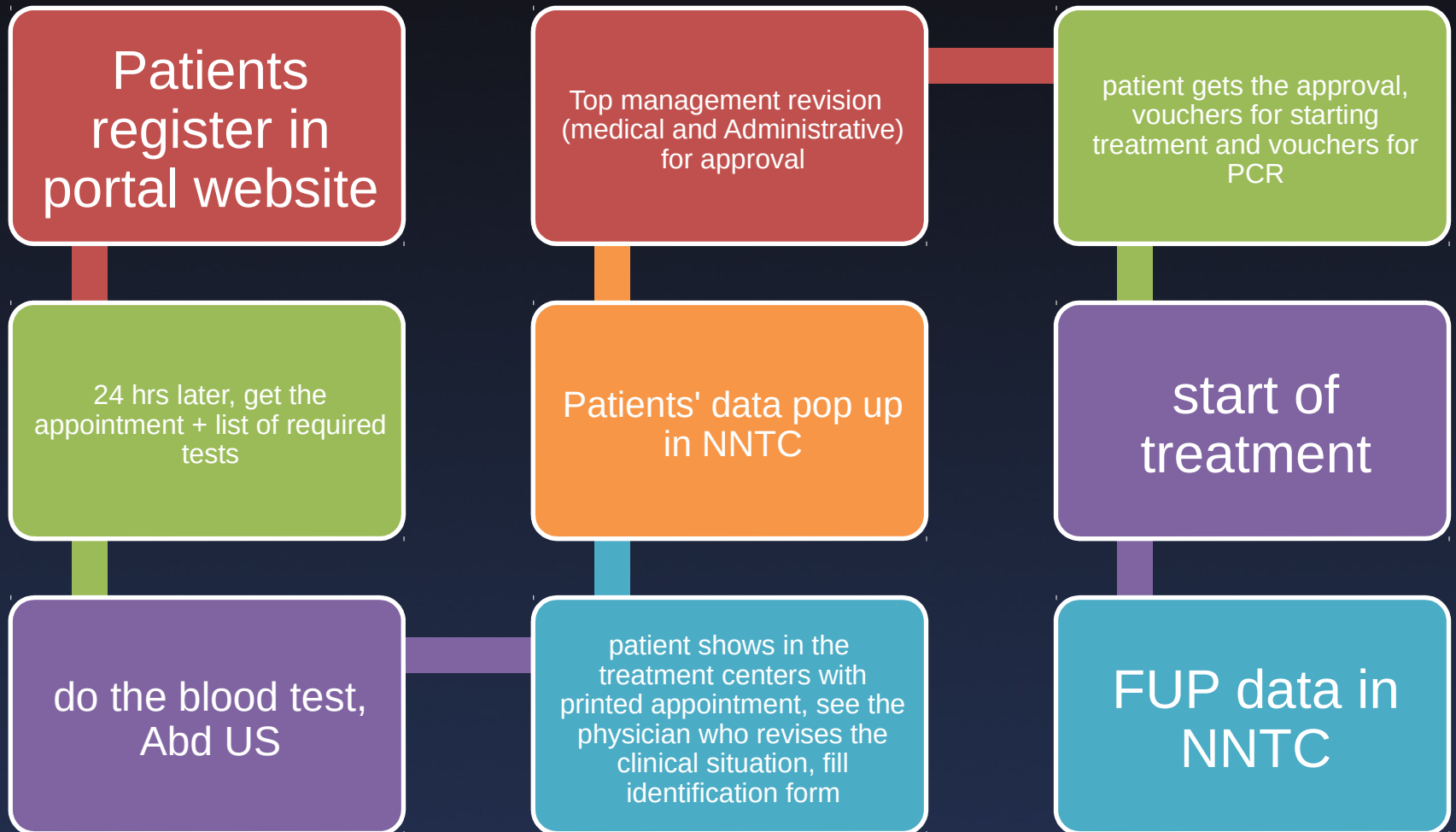
The Network Architecture



Patient Registry by portal

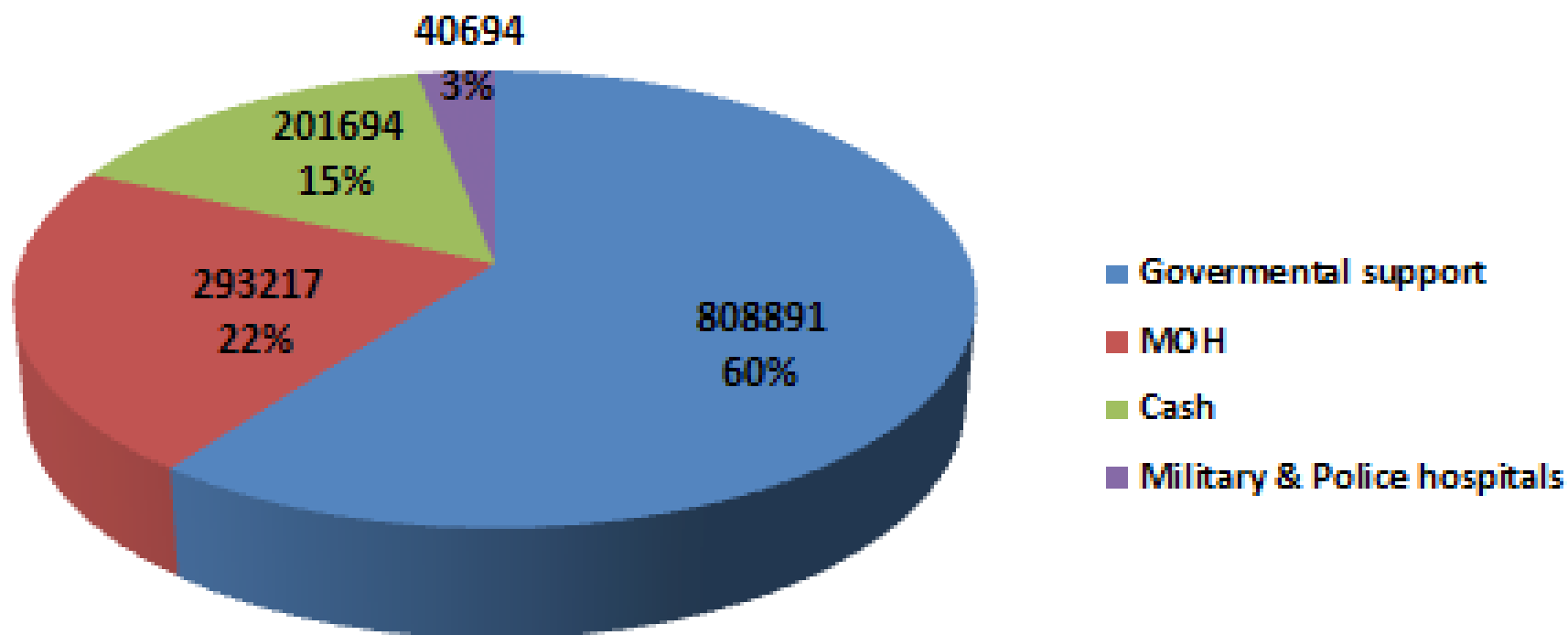
- Reservation of appointments online www.nccvh.org.eg
- The portal has a capacity to be visited by thousands at once
- Patients insert ID data, subsequently a date is given in the geographically relevant unit
- Providing advice and information on the situation of patients seeking HCV treatment
- Getting the printed appointment with the list of investigations required

Patients' Journey



Number of treated patients through the Egyptian national treatment program with DAAs till the end of 2017

1,344,496 Patients



Screening Program

3,300,000
screened
subjects

1,500,000

6 categories

1,800,000

Field screening

- Inpatients
- Health care workers
- Prisoners
- First year students
- Submitted for travel
- Blood banks Donors

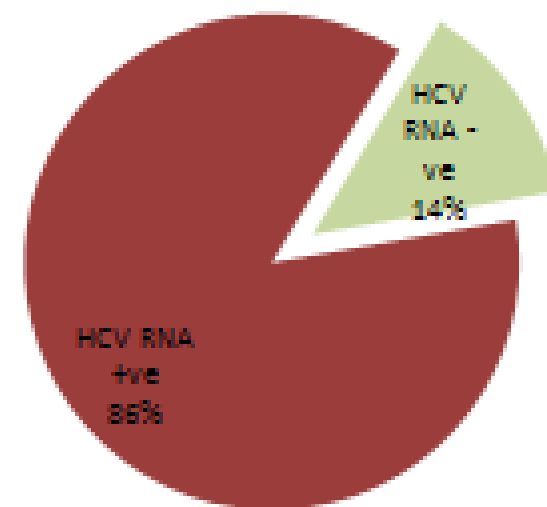
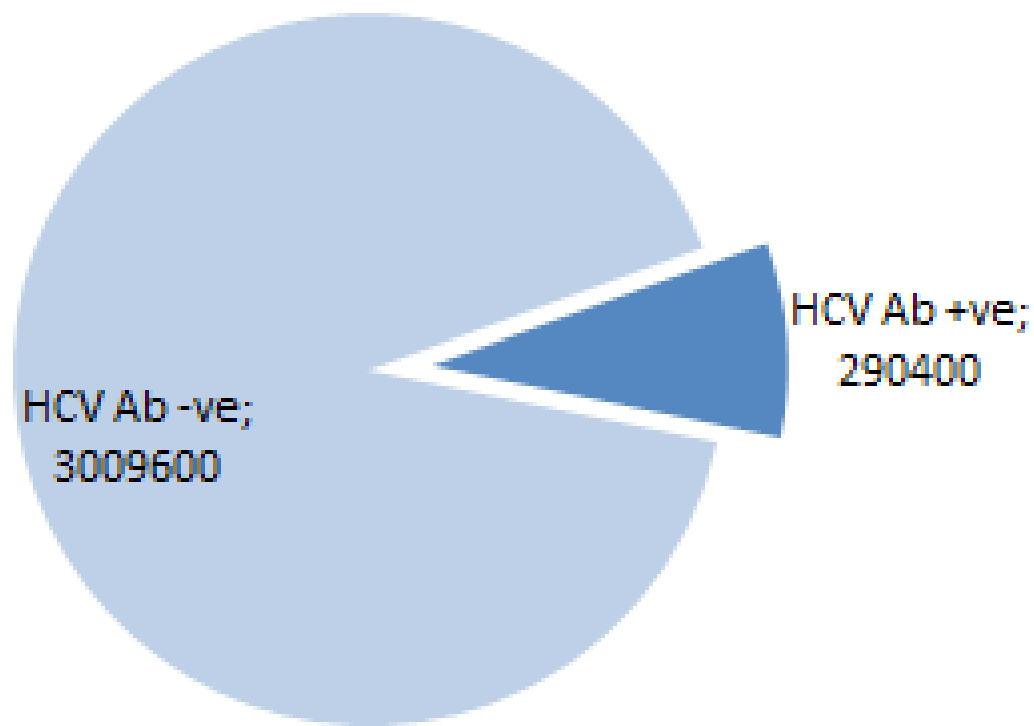
ELISA test
(cost \$4.1)

Saliva rapid test
(cost \$4)

- Upper Egypt
- All age groups

Screening results till Aug 2017

3,300,000



249,744 patients need to be treated

Low price of antiviral drugs in Egypt

The price of the brand antiviral drugs starting from the era of pegylated IFN and RBV to the DAAs is lower in the Egyptian market

During the era of Pegylated IFN – Ribavirin -
Egyptian Biosimilar of Pegylated IFN

During the era of DAAs -
Egyptian Generic of DAAs

The Egyptian Patent Office (EGYPO)

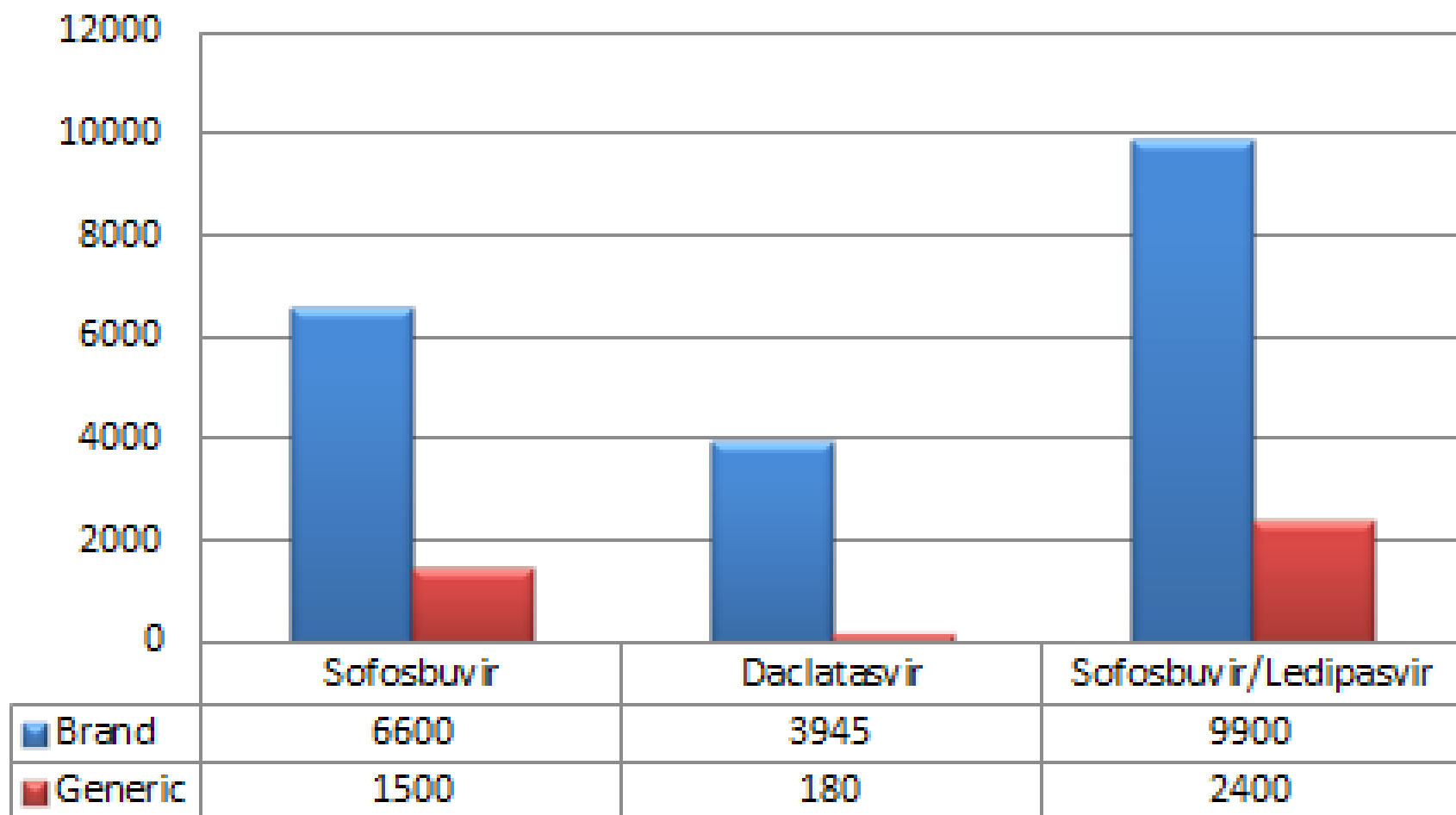
DAAAs available in Egypt

- Sofosbuvir (Sovaldi) + generic
- Daklatasvir (Daklinza) + generic
- Sofosbuvir + Ledipasvir (Harvoni) + generic
- Simeprevir – (Olysio) No generic
- Ombitasvir / Paritaprevir / Ritonavir-
(Querevo –Viekira) No generic

Low price of antiviral drugs in Egypt

A dramatic fall of the price of the generic molecules of the DAAs occurred during the last few months rendering the price of the combination (Sofo + Dacla) about 25 Euros per month

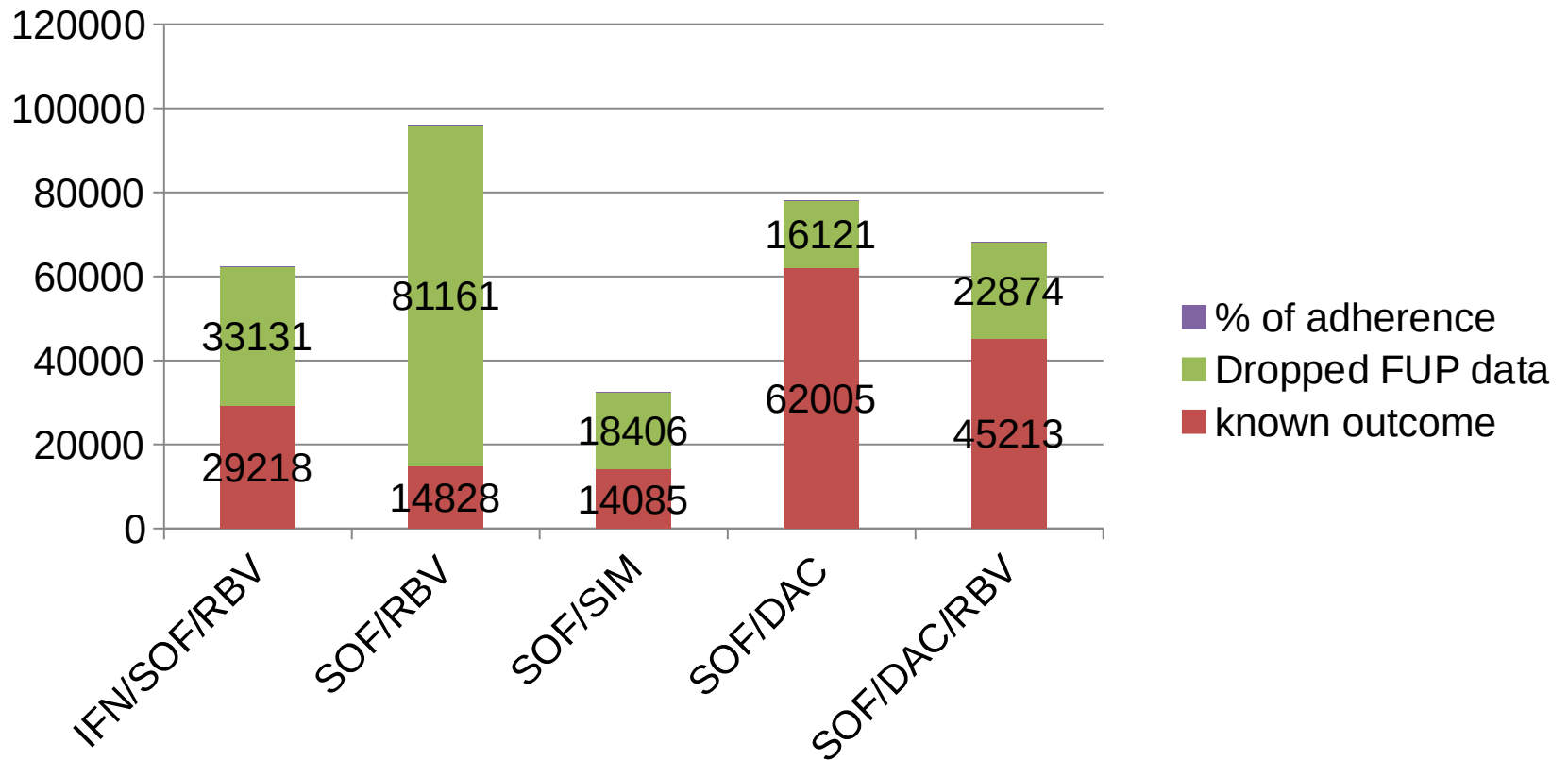
HCV DAAs Prices for 12 weeks treatment (EGP) Brand vs. Generic



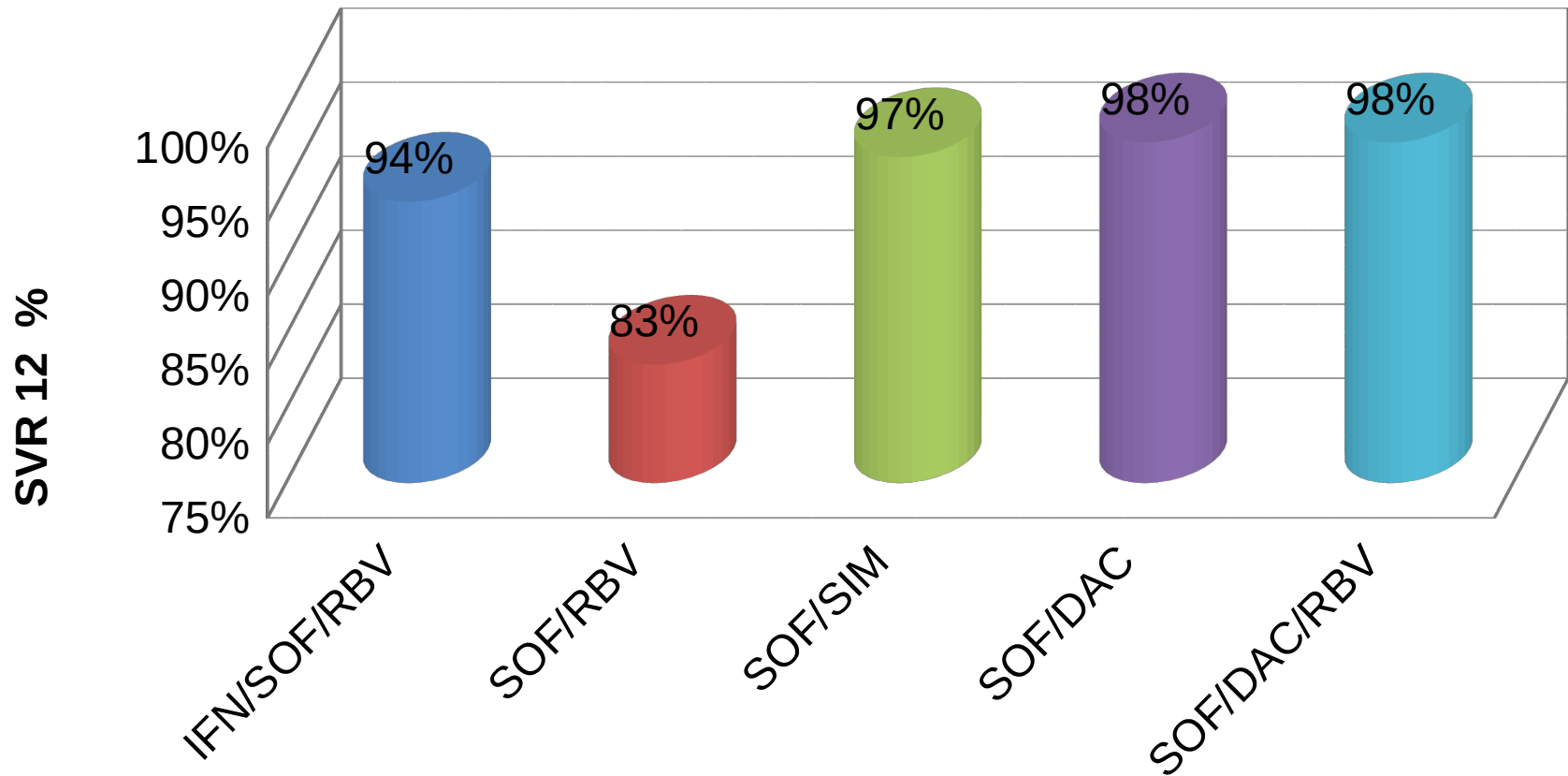
Chronology of treatment protocols implemented by the National Program

Date	Implemented protocol	Inclusion criteria
2007-2014	PegIFN-RBV	F1-F3 patients
October 2014-May 2015	Sofosbuvir-PegIFN-RBV	F3,F4 IFN tolerant
	Sofosbuvir-RBV	F3,F4 IFN intolerant up to Child B 8 (down to 7)
May 2015-November 2015	Sofosbuvir-PegIFN-RBV	F0-F4, normal synthetic function
	Sofosbuvir-Simeprevir	F0-F4, impaired synthetic function up to Child A6
November 2015	IFN-free regimen. Two DAAs ± RBV	F0-F4, impaired synthetic function up to B7. Higher Child in special centers

Of total 337.042 treated whose baseline data are available



Known outcome in 165.349 patients



Problem with SVR

One of the major challenges following the introduction of DAAs was the failure of a significant number of patients (approximately 40%) to return for evaluation of SVR.

Patients were motivated to come back 12 weeks post-therapy for clinical and laboratory follow-up

A certificate of “cure from hepatitis C” .

- Patients who relapse are retreated according to the guidelines and protocols of managing treatment failures.

Goals for the future

- The national goal of the HCV management program in Egypt was to reduce the prevalence $<2\%$ within 10 years and to near elimination of the disease (prevalence $<1\%$) by 2030.
- Modeling studies before the start of the DAA treatment program showed that Egypt needs to scale up treatment to 350,000 patients a year by medications that are associated with $>90\%$ cure rate to achieve these ambitious goals.
- This upscale requires governmental and societal commitments, and further reduction in cost of drugs.

There is an urgent need for

- Strengthening prevention efforts (more than 150 000 new cases of HCV per year in Egypt)
- Bringing down the costs of antiviral drugs where the poor population is the most likely to be infected by the virus

Thank you

