



Diagnosis-related groups as a tool for the restructure of the hospital care

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History of the DRG

- 1977, USA – the start of the DRG development
- 1980 – pilot testing, clinics in New Jersey
- 1983 – DRG used in all the USA clinics working with “social” patients (467 groups)
- 1987 – development of DRG for clinics, working with other patients
- Now – about 1200 groups

Developers:

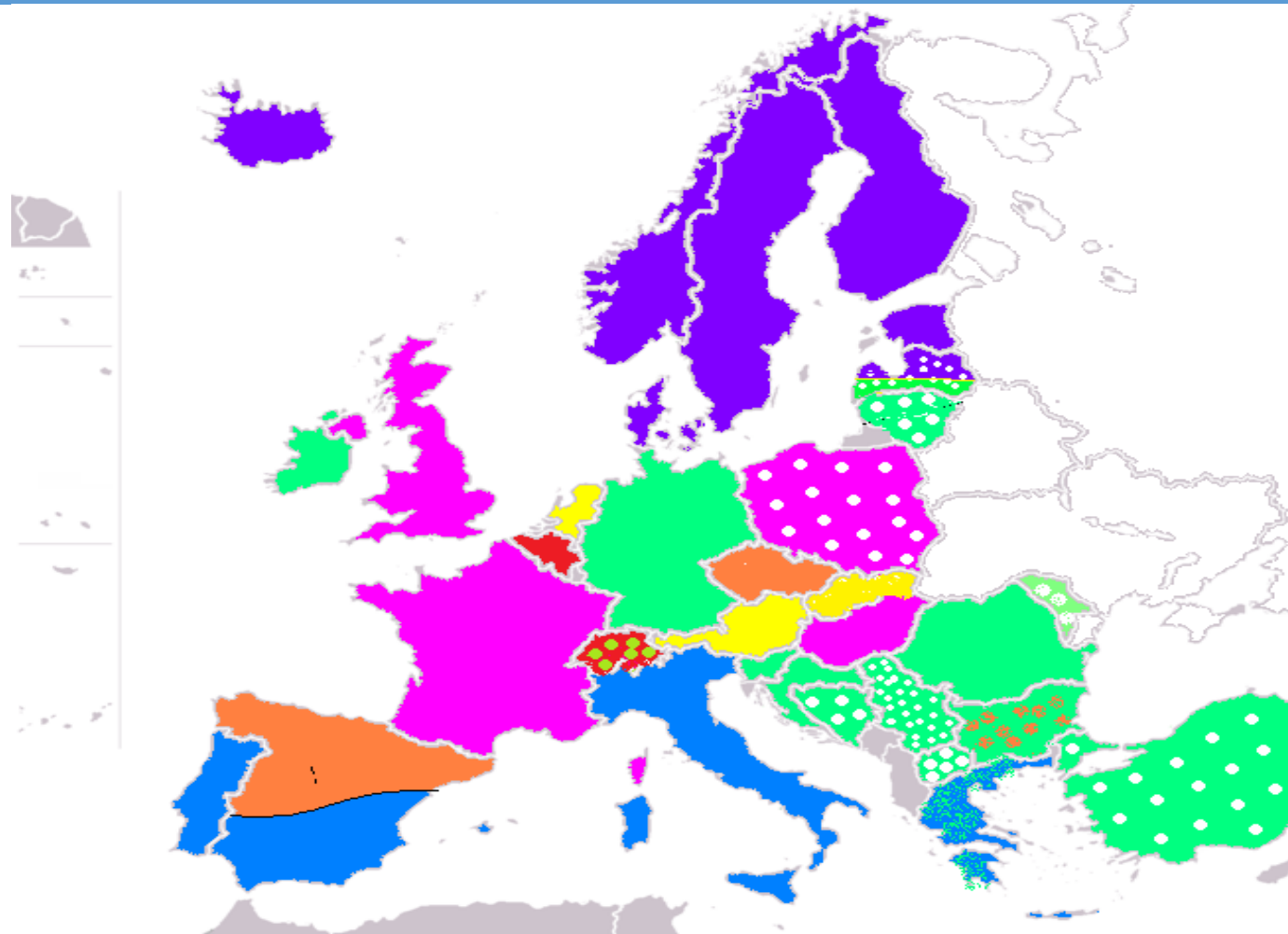
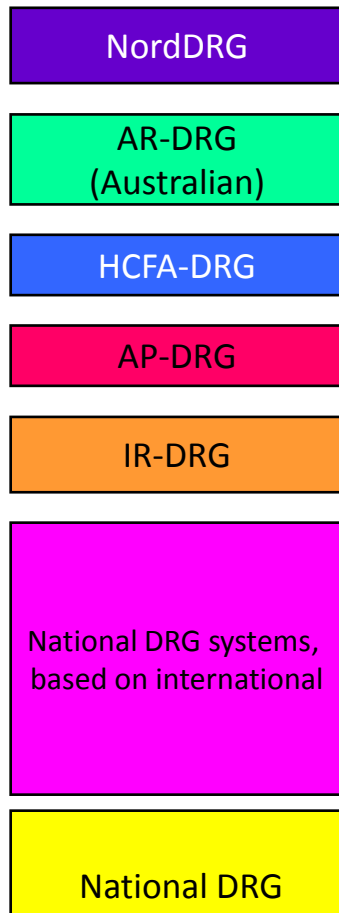
Robert Barclay Vetter

John Devereaux Thompson,

Yale University



DRG map in the modern Europe



Source: Sanigest; 15.12.2014

G. Kacevičius

12 major countries in Europe and 5 post-Soviet countries
use DRG for the payment of inpatient care

History of the DRG system payment in Kazakhstan

Kaz.0 DRG

1995

1996

1997

Taldykorgan model

Zhezkazgan model

Karaganda model

Kaz.1 DRG

1999

1999

2000

National model

Exploitation

Consolidation of the budget at the regional level

Kaz.2 DRG

2010

2011

2011

MET: data base, tariff filling

Development of DRG, pilot approbation

Establishment of the national budget to fund hospitals

Kaz.3 DRG

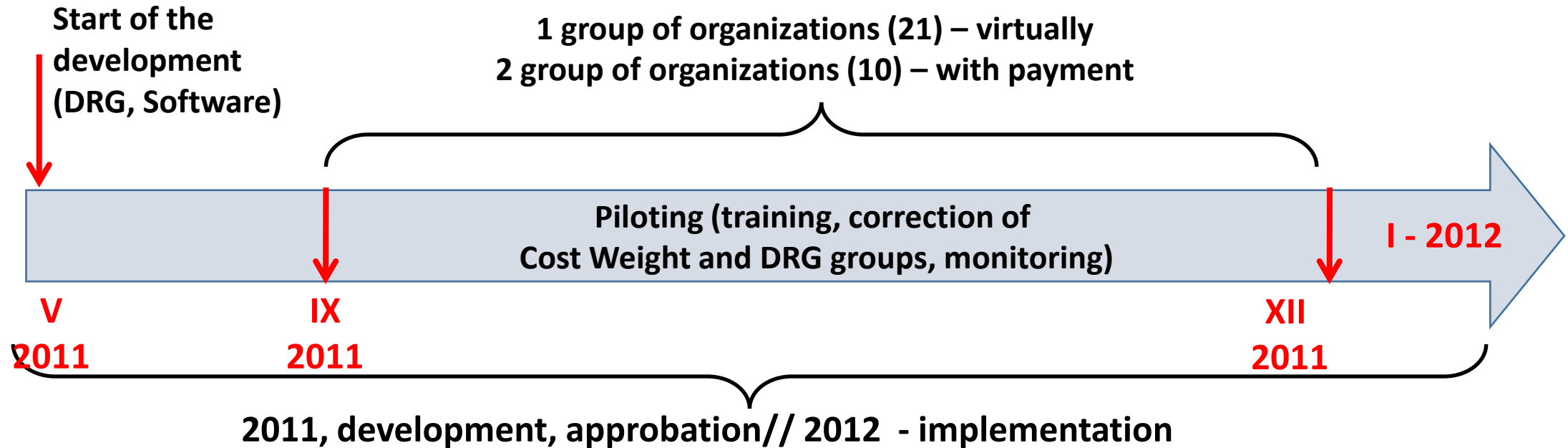
2012

2012-2014

The introduction of payment for inpatient care by DRG in the Republic of Kazakhstan

Improving DRG list based on advanced statistical and economic data

The development and implementation of DRG in UNHS



Seminars for piloting organizations took place

Installation of software in piloting organizations

DRG reviewed. Preparation of appropriate reference materials

The development of appropriate legal regulations

Budget and planned volumes calculated for piloting organizations

The results of the MET review and the improvement of previously used DRG

Type	MET before	DRG before, 1999	DRG for piloting August, 2011	Approved DRG for implementation December, 2011
Tertiary care	--	0 DRG	30 DRG	60 DRG
Therapy, SMC	725 MET	102 DRG	110 DRG	350 DRG
Surgery, SMC	562 MET	46 DRG	50 DRG	246 DRG
Total	1287 MET	148 DRG	190 DRG	656 DRG

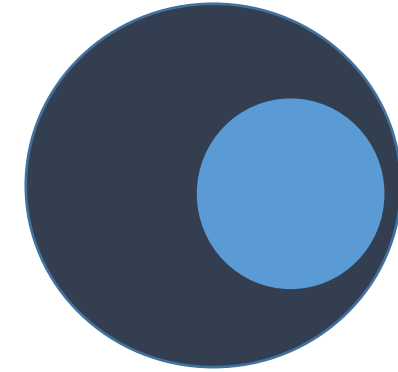
Leading doctors of national clinics and international consultants took part in the revision of the groups

According to international practice 300-500 DRG enough to pay for the majority (75-80%) of inpatient care cases

Databases of 2010-2011 with 3.8 million cases of treatment with the actual costs were analyzed. DRG of 1999 were revised according to the changed conditions of payment (increasing salary, more expensive medicines, new technologies). Excessive details in MET were eliminated due to consolidation of the DRG.

•DRG have been significantly improved becoming more adapted to the modern conditions of the health system of Kazakhstan, in comparison to the DRG taken as a base in June, 2011.

Significant expansion of DRG listing groups, levels of medical aid (SMC, Tertiary care). The costs of vendors presented for payment were taken as a base for calculations.



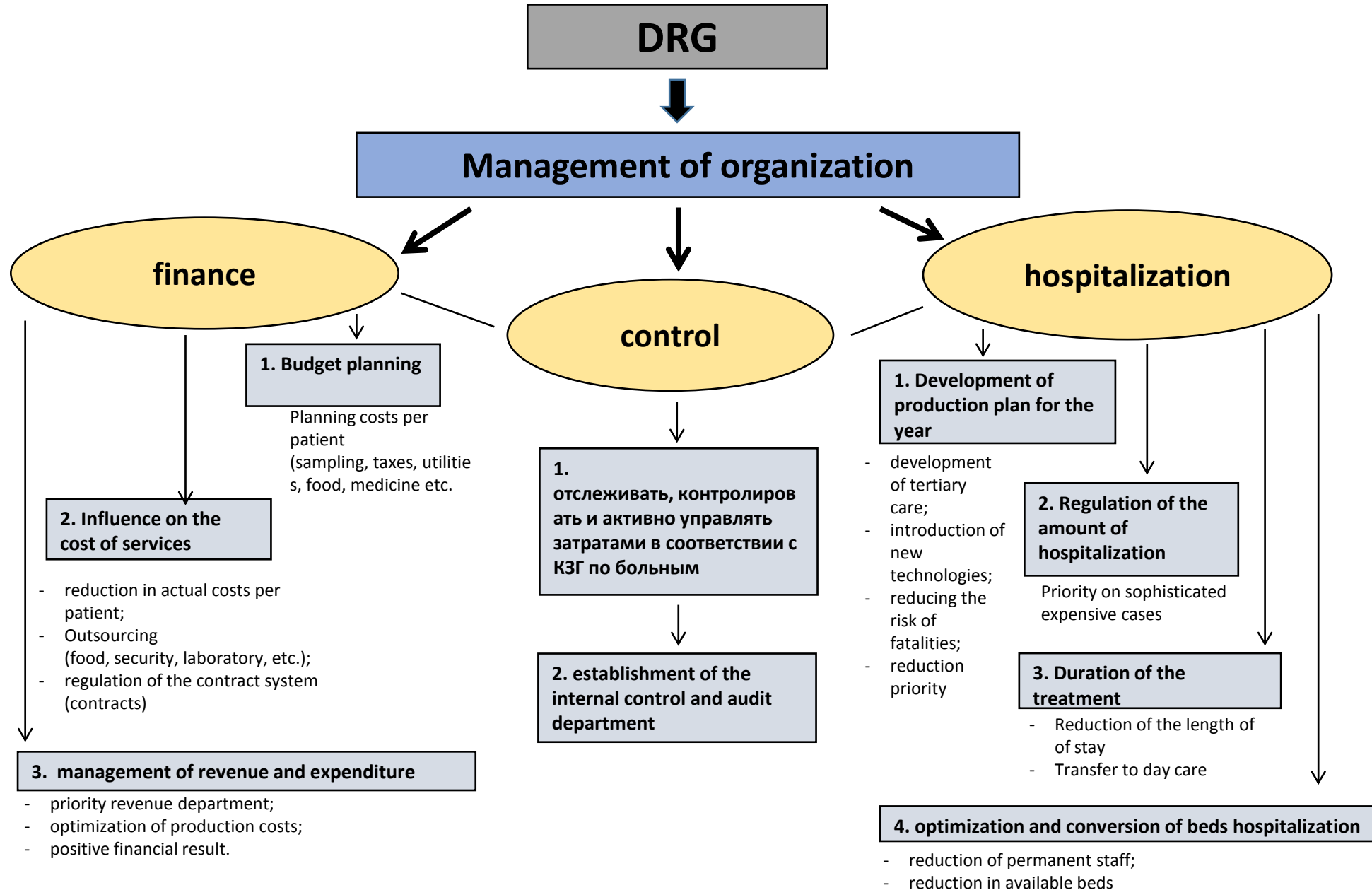
Oxford Policy Management

Recommendation	Events
To assess the costs of the experiment group to support the reliability of the weight costs of DRG	Modelling of prioritized DRG
Continuing to expand and harmonize DRG in accordance with international data	Establishment of DRG Bureau as a part of RCHD
Increasing the capacity of staff responsible for coding	RCHD on the constant base
Create a list of "special" cases to exclude them from payment by DRG	A list of 11 nosology have been created

The introduction of DRG

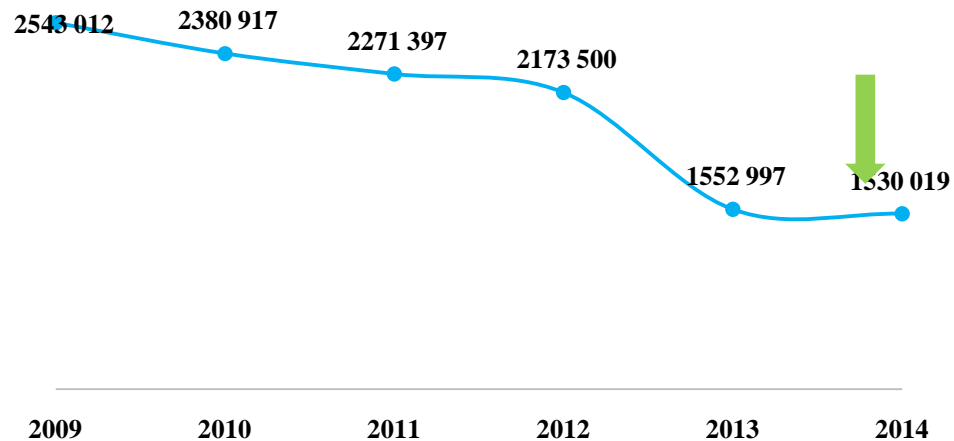
1. Allows to implement the effective management
2. Provides economic and legal conditions for staff work motivation
3. Provides transparency through corporate governance
4. Facilitates the introduction of new technologies and tertiary care
5. Promotes the extension of hospital replacing technologies
6. Saves time by simplifying the procedures
7. Promotes the possibility of equipment leasing
8. Provides self-determination of educational services and priorities
9. Provides acquisition of fixed assets (up to 5 million tenge) provided the status of PVC and the availability of the Supervisory Board

Using DRG in the hospital management

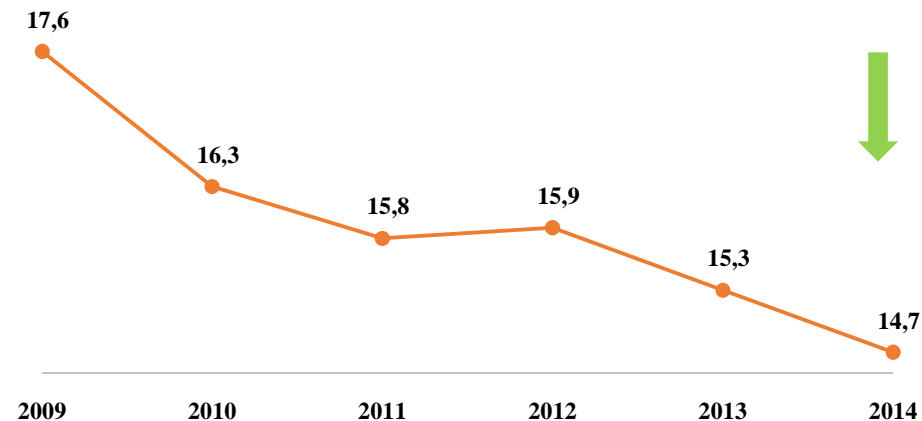


Achieved results

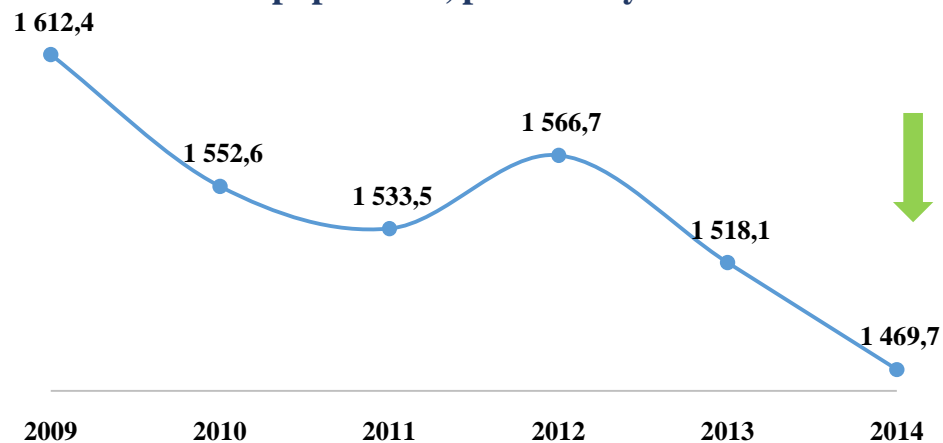
The number of cases treated in hospitals*



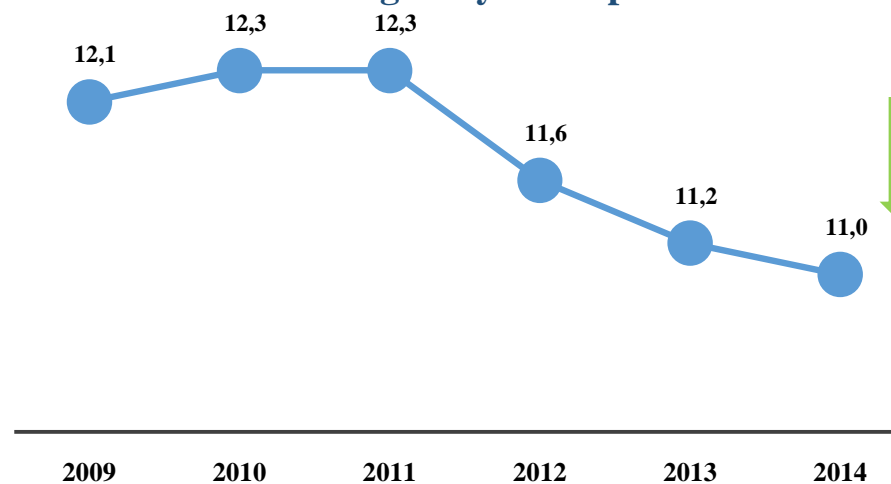
The hospitalization rate in hospitals per 100 inhabitants*



Consumption of hospital care per 1000 population, patient days*



The average stay in hospitals*

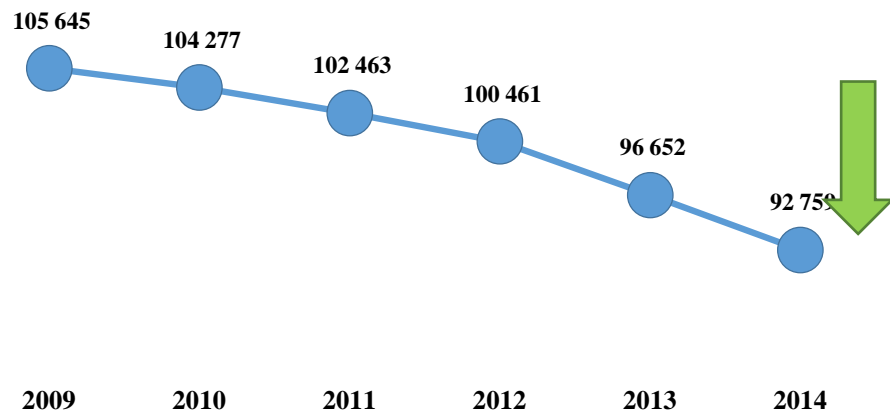


* Statistical compilation "Health of the Republic of Kazakhstan and activities of public health organizations" for the period 2009-2014.

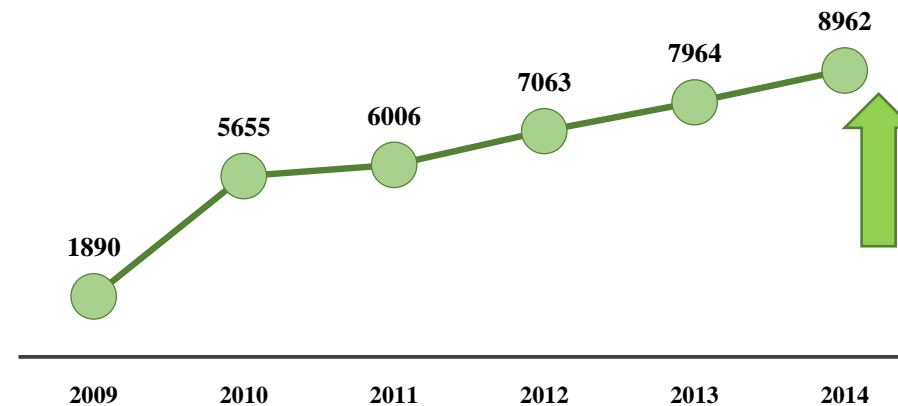
** Data on PVC RSE "National Center for e-health"

Achieved results

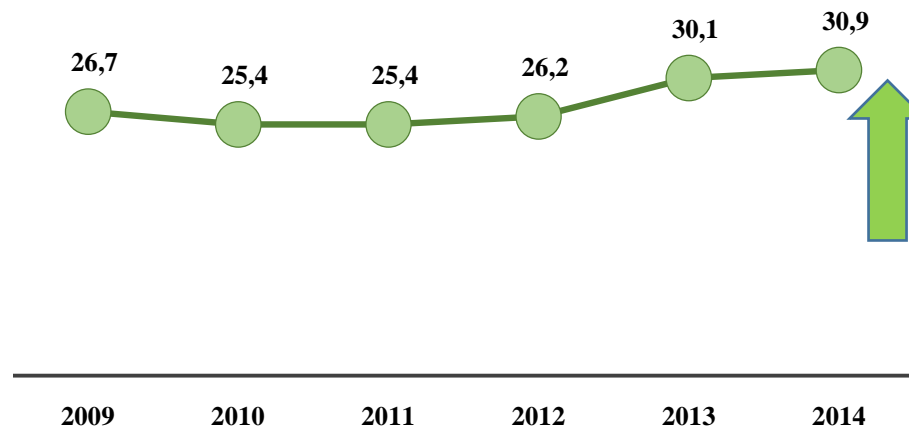
The number of beds at the end of the year*



Number of day stay beds at day hospital*



Turnover bed*

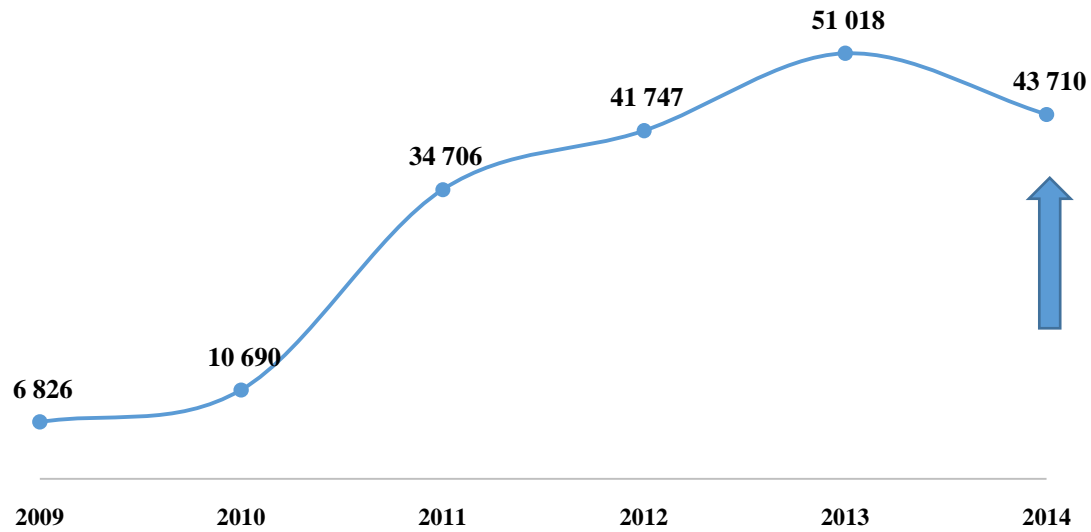


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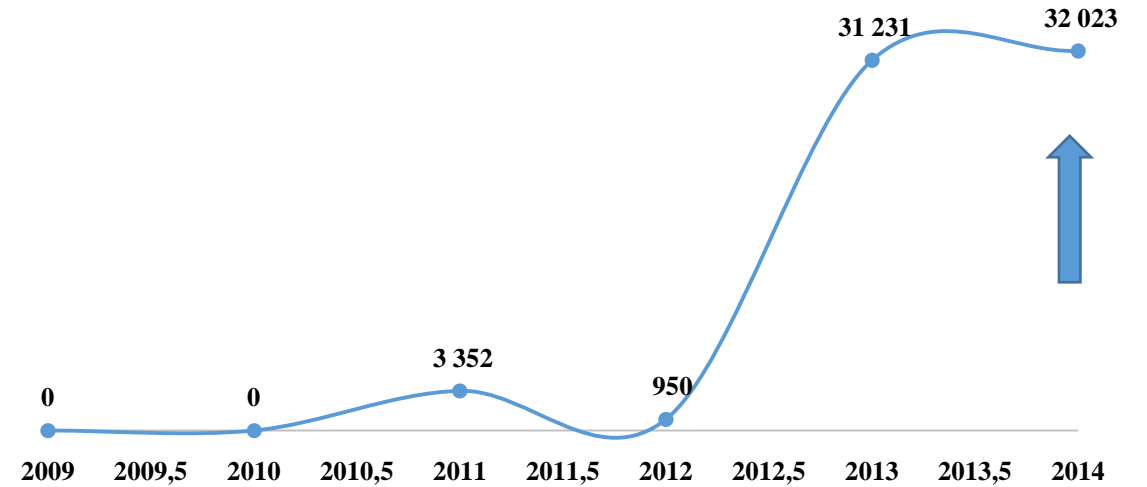
Achieved results

Tertiary care (number of patients)**



*the number of patients treated in 2014
associated with updating the list of tertiary care*

The introduction of differentiated pay**



* Statistical compilation "Health of the Republic of Kazakhstan and activities of public health organizations" for the period 2009-2014.

** Data on PVC RSE "National Center for e-health"

Perspectives: update categories for more accurate reimbursement

Revision of DRG dynamics for the years 2012-2015

	1st half, 2012	2nd half, 2012	2013	2014	2015
DRG groups	364	385	394	419	462

International experience on the number of DRG groups

	Austria	England	Estonia	Finland	France	Germany	Ireland	Poland	Spain (Catalonia)	Sweden
2005	883	610	496	831	773	878	665	---	670	740
2008	900	610	496	831	784	1137	665	490	676	976
2011	991	1389	786	1020	2297	1194	698	522	684	976

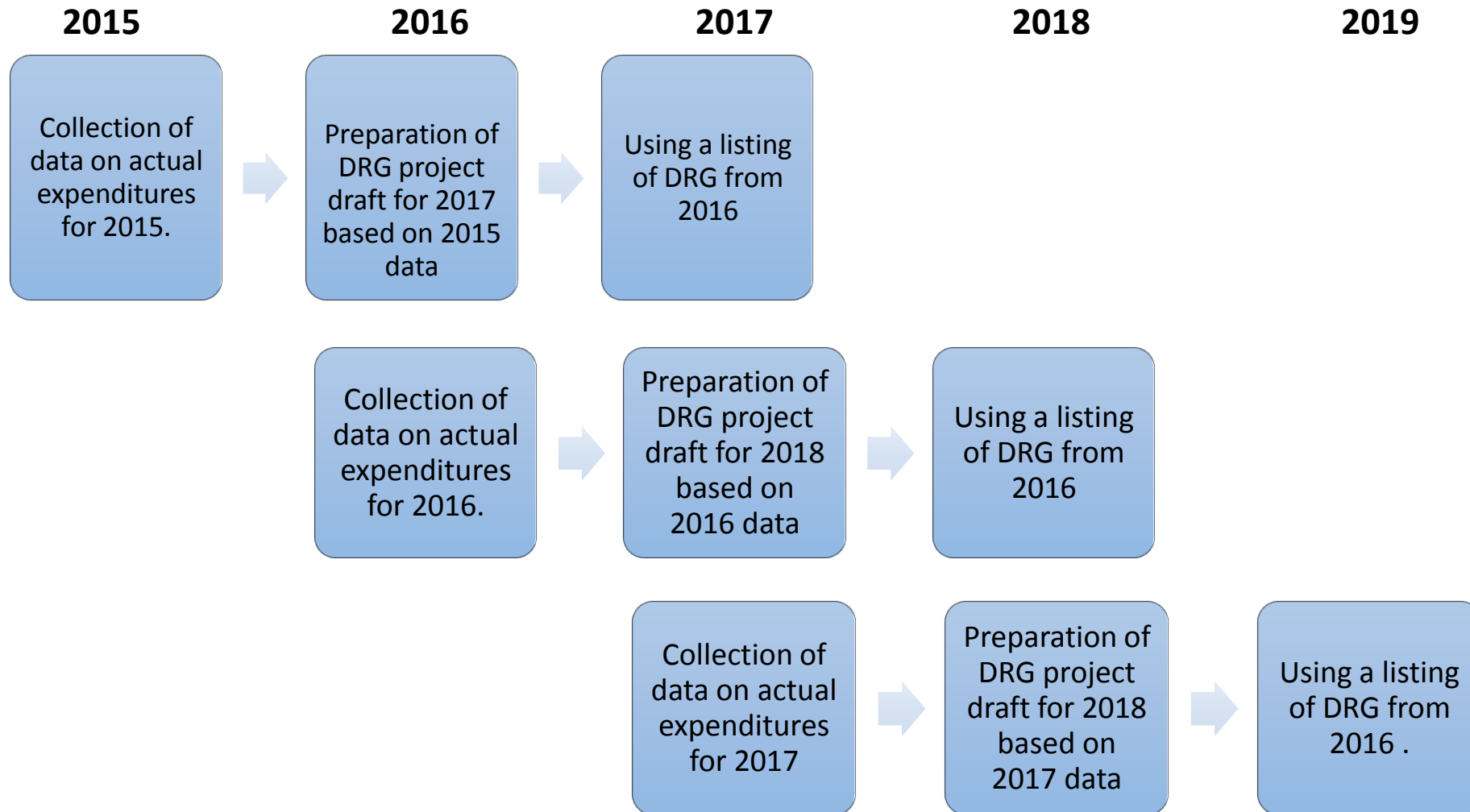
Perspectives: the introduction of additional criteria for grouping

	Current situation	Further improvement
The main criteria	<ul style="list-style-type: none"> • The main clinical diagnosis • The main surgery • The age group of patients 	<ul style="list-style-type: none"> • The main clinical diagnosis • The main surgery operation • The age group of patients
Additional criteria		<ul style="list-style-type: none"> • The outcome of the disease • Weight at birth • The severity of main diagnosis • The presence of concomitant diagnoses • Additional surgery, intervention • Factors significant intervention
List of major interventions		<ul style="list-style-type: none"> • The use of expensive drugs and medical devices • The stay in the department of AIC • Conducting invasive mechanical ventilation • Conducting sessions of extracorporeal detoxification • The use of cardiopulmonary bypass

The introduction of additional criteria to the DRG logic helps :

- 1) To differentiate the payment for cases according to the level of provision, the complexity and resources
- 2) To improve the efficiency of examination of quality and volume using a point method
- 3) To ensure transparency in the use of expensive interventions

Perspectives: constant process of improving DRG



Thank you for attention!