

ONE DOSE OF THE HUMAN PAPILLOMAVIRUS (HPV) VACCINE COULD BE SUFFICIENT

Compiled by Kerusha Pillay using data from 2014/15 - 2015/16

STUDY CONTEXT Assessing the effectiveness of the process surrounding the distribution and administering of the vaccine to the people who need it the most

BACKGROUND

- According to the Medical Research Council, cervical cancer which is caused by the sexually transmitted **Human Papillomavirus (HPV)**, kills more South African women than any other cancer.
- Although there are over **150 types of HPV**, about **67%** of cervical cancer are caused by two strains of the HPV, namely the **HPV 16** and **18 strain**.
- South Africa introduced a cervical screening policy, cervical screening was performed opportunistically,

meaning it was generally done in family planning and antenatal clinics.

- The South African government has since provided women with 3 Papanicolaou cytology tests (Pap tests) per lifetime, every 10 years, starting at age 30.
- In 2013/14 South Africa committed to provide free HPV vaccines to 9 and 10 year old girls in the poorest **80%** of schools

HPV DOSAGE

According to the **World Health Organisation** guidelines, **3 doses** of the **HPV vaccine** must be given over a period of **6 months** for it to be effective

The **Department of Health** opted for a **2-dose vaccination**, with a third dose to be given after **5 years**

Research showed that 2 doses of the vaccine were just as effective as the **3 dose regimen**

Significant short-term cost savings for the Department if a **2-dose regimen** was followed.

The vaccine called **Cervarix** won the tender for provision to public schools

EXPENDITURE ANALYSIS

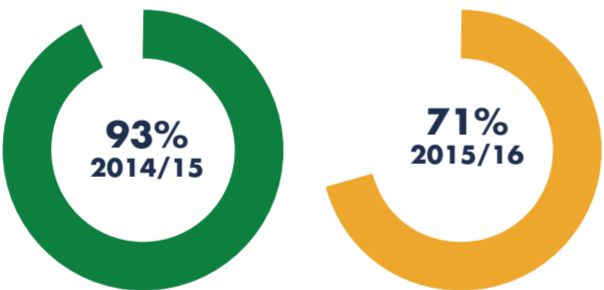
SINCE THE INTRODUCTION OF THE HPV PROGRAMME IN 2014/15 THE NATIONAL DEPARTMENT OF HEALTH (NDOH) HAS BEEN ALLOCATED **R200 MILLION** IN EACH FINANCIAL YEAR UNTIL 2018/19 FOR ITS IMPLEMENTATION

FUNDING WAS INITIALLY ALLOCATED IN THE NATIONAL HEALTH INSURANCE INDIRECT GRANT FOR THE HPV VACCINE COMPONENT BUT FROM THE 2018/19 FINANCIAL YEAR ALL FUNDING WILL BE MOVED INTO A NEW DIRECT PROVINCIAL HUMAN PAPILLOMAVIRUS VACCINE GRANT

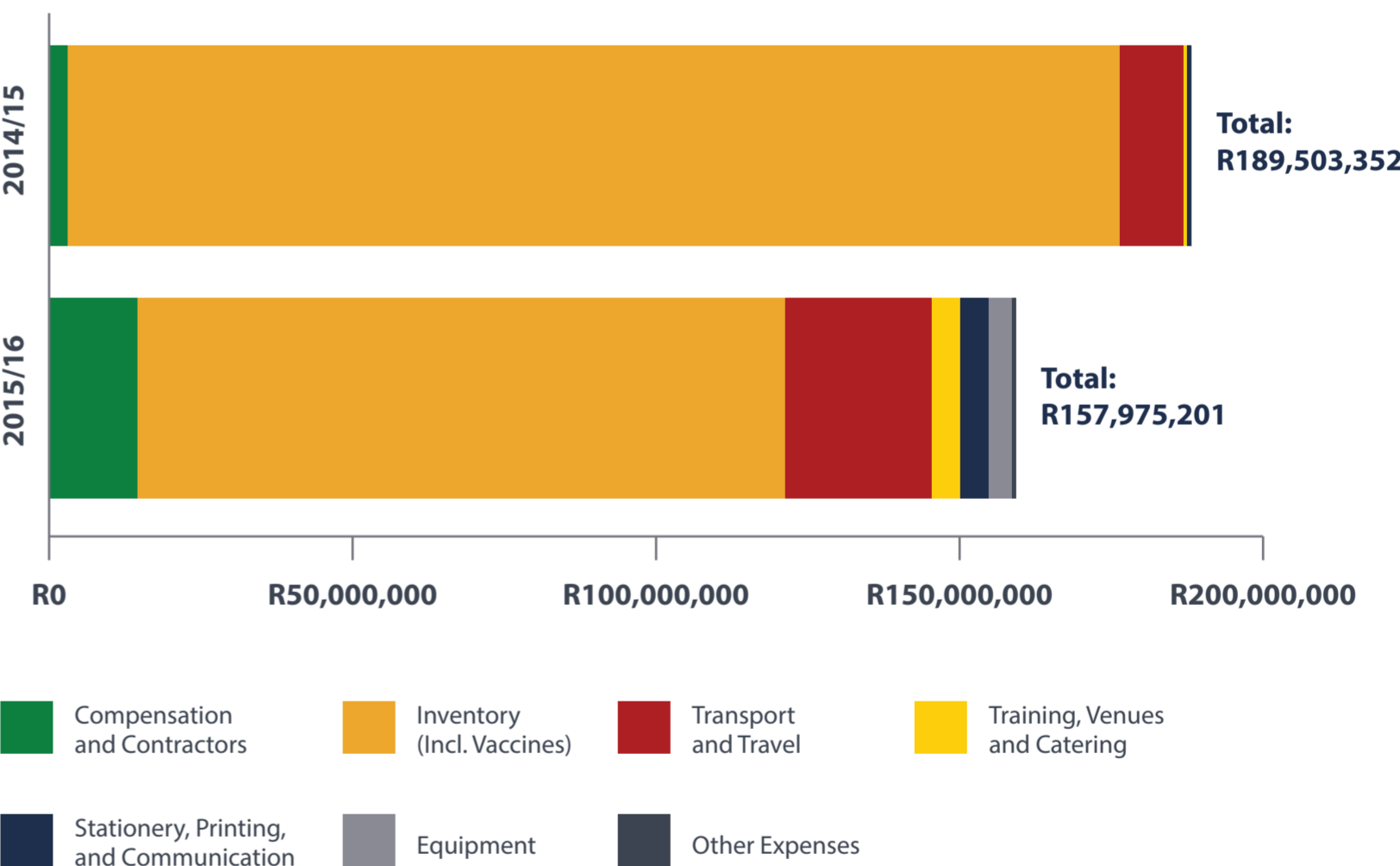
IN 2014/15 **R189.5 MILLION** WAS SPENT ON THE HPV VACCINE PROGRAMME IN 2015/16 SPENDING DECREASED TO **R125.1 MILLION** HOWEVER THIS AMOUNT EXCLUDES THE **R32.8 MILLION** THAT HAD ALREADY BEEN COMMITTED BY THE YEAR END

The reason for the decrease in expenditure in 2015/16 was probably attributed to the department procuring more vaccines than they administered in the previous financial year, which they then used for that year

YEARLY VACCINE EXPENDITURE CONSTITUTED



ELECTRONIC CAPTURING DEVICES AT **R2,000** EACH WERE PROCURED TO MORE PRECISELY MEASURE AND ELECTRONICALLY CAPTURE THE LEARNERS THAT HAVE BEEN VACCINATED FOR THE FIRST AND SECOND DOSE



COSTING MODEL OUTCOMES

The costing model based on the assumptions made illustrates that **R330** per learner will be the approximate cost of **procuring 2 doses of the vaccine**

Based on the analyses **R195.5 million** is the total cost per year to administer a twice-yearly vaccination programme for **455 000 girls**

CONCLUSIONS

Keeping track of age qualification could be a problem in cases where some learners have been held back from progressing to the next grade or miss the vaccine because they moved to another school.

Girls that miss the first vaccine can get it during the second phase but there is no clear direction given as to how they receive the second dose and whether it is within the **6 month period**. This calls into question the supposed urgency for the vaccine to be administered twice within a 6 month period.

Savings from a **1 dose regimen** can be made instead of a **2 dose regimen**. If one dose is sufficient, it could reduce vaccination and administration costs as well as improve uptake.